# TRANSPORTATION ASSESSMENT REPORT

Proposed Mixed-Use (Residential and Commercial) Development (348 Apartment Units and 12,821 Sq. Ft. Commercial) 688 S. Cochran Avenue Los Angeles, California



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### **EXECUTIVE SUMMARY**

The project under consideration is the proposed construction of a new mixed-use development at 688 S. Cochran Avenue, in the Miracle Mile area the City of Los Angeles. The project site is located on the north side of Wilshire Boulevard between Cochran Avenue and Cloverdale Avenue and is currently occupied by a Staples office supply store and an additional commercial building, both of which are currently active. The proposed project will remove the Staples store building, and preserve and incorporate portions of the other on-site building into the new development, which itself will contain up to 348 residential apartments (including 38 "affordable" units) and a total of about 12,821 square feet of ground floor commercial uses, including 7,378 square feet of general retail uses, 4,443 square feet of restaurant floor area, and a 1,000 square foot café.

The project will also include a total of about 478 vehicular and 200 bicycle parking spaces within a multi-level parking garage accessed by two driveways, including one along Cochran Avenue that will access two above-grade (self-park) "commercial"/residential guest parking levels, and one along Cloverdale Avenue serving three subterranean (automated) "resident" parking levels. The proposed project will also include a separate porte cochere, which will be accessed via a right-turn only entry-only driveway on Cochran Avenue and a right-turn only exit-only driveway on Cloverdale Avenue (both of which are in addition to and located directly south of the project's "primary" driveways) serving an on-site passenger drop-off/pick-up area for ride-hailing services (Uber, Lyft, taxis, etc.) as well as the project's on-site loading docks and trash collection area.

The project applicant retained Hirsch/Green Transportation Consulting, Inc. to evaluate the potential transportation-related impacts of the new development based on the requirements and methodologies identified in the City of Los Angeles Department of Transportation's ("LADOT") Transportation Assessment Guidelines ("TAG", July 2020). These guidelines include analyses to determine the proposed project's consistency with applicable plans and policies related to the City's recently adopted vehicle miles traveled ("VMT") evaluation criteria, pursuant to the current California Environmental Quality Act ("CEQA"), as well as "non-CEQA" evaluations to assess the project's effects on local pedestrian, bicycle, and public transit access, circulation, and safety.

These evaluations confirmed that the project will result in less-than-significant impacts under the City's adopted CEQA-compliant VMT analysis standards. Specifically, the proposed project's residential component will exhibit a "per capita" household VMT of 4.0, which is well below the "per capita" household VMT significance threshold of 6.0 applicable to the study area. In addition,

the project's commercial component will contain less than 50,000 total square feet of floor area, and as identified in the TAG, is therefore assumed to consist exclusively of local-serving uses, which by definition do not result in any significant "per employee" work-related VMT impacts. While this conclusion is based partially on several conditions, such as reduced vehicular parking (versus typical LAMC requirements) and the inclusion of Code-compliant on-site bicycle parking, it is also of note that the proposed project would not result in any significant VMT-related impacts without the traffic-reducing effects of either of these factors. Nonetheless, the proposed project will incorporate both of these elements into its design, and will also include additional measures that are designed to inform its residents and employees about the various public transit and/or other transportation options available at the site itself or within the surrounding vicinity, such as information kiosks, posters, and/or a website containing public transit route maps and schedules.

Although no other trip-reduction measures were assumed in this study, the proposed project will be required to comply with the City's Transportation Demand Management ("TDM") Ordinance (LAMC Section 12.26.J), which itself may result in the implementation of additional measures. Note that the analyses of the project's transportation impacts contained in this study assumed the use of both the existing bus service and the future Purple ("D") Line subway, and as such, the project's TDM program will include measures to maximize the use of these transit facilities, as well as to encourage carpooling and ridesharing, bicycle ridership, and telecommuting. However, at a minimum, the project's TDM program will include the strategies and programs identified in the TDM Ordinance, as are applicable to the project's individual component uses.

With the implementation of these measures, no significant VMT-related impacts are anticipated. Additionally, the proposed project is consistent with all applicable City plans, programs, and policies related to providing and maintaining a sustainable transportation network. The project will provide sufficient on-site vehicular and bicycle parking to meet its applicable requirements, and will not result in significant impacts to pedestrian or bicycle facilities, or public transit access or service in the study area. Therefore, no CEQA-related mitigation measures are warranted.

Further, once it is completed, the project is not expected to produce any detrimental effects on the two site-adjacent intersections, and as such, no physical or operational improvements at either of these locations are necessary, although a three-foot right-of-way dedication will be required along the Cochran Avenue frontage of the project site in order to comply with the applicable Mobility Plan 2035 design standards for this street. The project will not induce any new non-project "cut-through" traffic on either Cochran Avenue or Cloverdale Avenue within the study area, and is not anticipated to result in any adverse effects on these local-serving streets.

All of the proposed project's driveways will exhibit acceptable operations, with no long-duration "internal" or on-street vehicular queues, and will not disrupt pedestrian activity or traffic flows along either Cochran Avenue or Cloverdale Avenue. Finally, the project will not adversely affect any of the pedestrian activity, or bicycle and/or public transit facilities in the project vicinity.

However, during the project's anticipated 36-month construction period, it is expected that the westbound curb lane on Wilshire Boulevard, as well as the sidewalks along Wilshire Boulevard, Cochran Avenue, and Cloverdale Avenue adjacent to the project site will be temporarily closed, and the existing on-street parking areas along the site frontages of both Cochran Avenue and Cloverdale Avenue will be used for construction equipment staging and materials deliveries. The Wilshire Boulevard curb lane provides a dedicated "Bus Only" lane in the study area during both the morning and afternoon/evening peak commute traffic periods, and its closure along the project frontage will require buses to merge into the adjacent mixed-flow through lane between Cloverdale Avenue and Cochran Avenue, potentially increasing bus headway times during the peak traffic periods, although any such increases would likely be nominal. The closure of the Wilshire Boulevard curb lane, and the construction-related use of the on-street parking areas on Cochran Avenue and Cloverdale Avenue will temporarily remove 10 metered parking spaces, and while the effects on public parking in the area are expected to be minimal, the project will be required to reimburse the City for the lost parking meter revenue during the construction period.

Additionally, the closure of the sidewalks along each of the project frontages will necessitate the relocation of the existing bus stop/shelter along Wilshire Boulevard adjacent to the project site, and the rerouting of pedestrian traffic along each of the site-adjacent streets. It is anticipated that the existing bus stop/shelter will be moved one block west of the project site, although the final location will be determined by Metro prior to the start of the project's construction activities; the relocation of the bus stop/shelter is not expected to negatively affect either rider access or the operations of the bus lines served by this stop. The construction-related sidewalk closures will also require that pedestrians using the sidewalk along the site's Wilshire Boulevard frontage instead utilize the sidewalk on the south side of the street, and to use the signalized crosswalks at Cochran Avenue and Cloverdale Avenue to cross Wilshire Boulevard, while pedestrians using the sidewalks on Cochran Avenue and Cloverdale Avenue will need to use the sidewalks provided on the opposite side of the street from the project site. However, the overall effects of the rerouting of the pedestrian paths are expected to be nominal. Further, none of the site-adjacent streets currently exhibit bicycle lanes or other related facilities, and as such, no project construction-related effects on the area bicycle network are expected.

Although no long-duration negative effects of the project's construction operations are expected, prior to the start of any construction activities at the site, the project will be required to prepare a Construction Traffic Management Plan ("CTMP"), which will detail the construction operations, and identify any measures that may be required by the City to minimize any detrimental effects within the study area. Additionally, the preparation of a Worksite Traffic Control Plan ("WTCP") describing the management of vehicular, pedestrian, and bicycle activity in the project vicinity throughout the proposed project's construction activities will also be necessary.

# TABLE OF CONTENTS

	<u>Page</u>
	1
PROJECT DESCRIPTION	4
Project Parking Requirements	6
Project Vehicular Parking Requirements	6
Project Bicycle Parking Requirements	11
Proposed Project Parking Supply	13
Project Vehicular Access and Operations	14
Project Transportation Demand Management ("TDM") Measures	15
Required Project Roadway Improvements	15
PROJECT CONTEXT (STUDY AREA)	17
Environmental Setting	17
Area Transportation Facilities	17
Streets and Highways	19
Bicycle Facilities	22
Public Transportation	23
CALIFORNIA ENVIRONMENTAL QUALITY ACT ("CEQA") IMPACT ANALYSES	28
Conflicting with Plans, Programs, Ordinances, or Policies (Threshold T-1)	28
Causing Substantial Vehicle Miles Traveled (Threshold T-2.1)	30
VMT Analysis "Screening" Procedure and Results	32
Proposed Project VMT Impact Evaluations	33
Proposed Project Cumulative VMT Impact Evaluations	35
Substantially Inducing Additional Automobile Travel (Threshold T-2.2)	35
Substantially Increasing Hazards Due to a Geometric Design Feature	
or Incompatible Use (Threshold 1-3)	36
NON-CEQA TRANSPORTATION IMPACT ANALYSES	37
Proposed Project Access, Safety, and Circulation Evaluations	37
Project Traffic Generation Calculations	37
Project Geographic Trip Distribution	44
Project Traffic Assignment	45
Study Area Traffic Volumes	60
Existing (Year 2021) Traffic Volumes	60
Future (Year 2027) Traffic Volumes	62

# **TABLE OF CONTENTS (continued)**

# <u>Page</u>

# NON-CEQA TRANSPORTATION IMPACT ANALYSES (continued)

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	98
Project Construction Management Plan	97
Project Construction-Related Effects on Access, Transit, and Parking	94
Construction Activity Timelines and Traffic Generation Estimates	88
Staging Areas and Construction Worker Parking	88
Haul Route	88
Project Construction Evaluations	87
Pedestrian, Bicycle, and Transit Access Assessment	80
Local/Residential Street Cut-Through Traffic Evaluations	78
Proposed Project Driveway Operations Evaluations	73
Forecast Future (Year 2027) Conditions	71
Existing (Year 2021) Conditions	70
Analysis Methodology and Assumptions	68
Analysis of Study Area Traffic Conditions and Project-Related Effects	68
Forecast Future With Project Traffic Conditions	64
Cumulative Development ("Related Projects")	63
Ambient Traffic Growth	63
Forecast Future Without Project Traffic Conditions	63
Study Area Traffic Volumes (continued)	

# APPENDICES

- A Single-Unit Truck (SU-30) Turning Movement Analysis (Cochran Avenue)
- B Project-Serving Bus Route Maps and Schedules
- C Project Compatibility With City Transportation Plans and Policies Checklist
- D LADOT VMT Calculator Threshold T-2.1 "Screening" Worksheet
- E LADOT VMT Calculator Threshold T-2.1 Daily Trip and VMT Calculations
- F Proposed Project and Existing On-Site Uses Trip Generation Calculations
- G Proposed Project Component and Existing On-site Uses Trip Assignment Percentages
- H Proposed Project and Existing On-Site Uses Individual Component Traffic Volumes
- I Related Projects Descriptions and Trip Generation Estimates
- J Study Intersection Geometrics/Controls and Traffic Count Data Sheets
- K Highway Capacity Manual ("HCM") Intersection Analysis Worksheets
- L Highway Capacity Manual ("HCM") Project Driveway Operations Analysis Worksheets

Figure No	<u>.</u>	<u>Page</u>
1	Project Site Vicinity Map	2
2	Project Site Location and Surrounding Area	5
3	Project Layout (Site Plans)	7
4	Project Study Area	18
5	Project Area Transit Service Map	24
6	Project-Related General Geographic Trip Distribution Percentages	47
7	Project-Related Trip Assignment Percentages	51
8	Total Proposed Project Intersection and Driveway Trips	54
9	Total Existing On-Site Uses Intersection and Driveway Trips	56
10	Total Net Project Intersection and Driveway Trips	58
11	Existing (2021) Traffic Volumes	61
12	Related Projects Locations Map	65
13	Future (2027) Without Project Traffic Volumes	66
14	Future (2027) With Project Traffic Volumes	67
15	Proposed Project Peak Hour Driveway Volumes	74
16	Proposed Project and Existing On-Site Uses Daily Traffic Volumes	81
17	Proposed Project Haul Route (Project Vicinity Only)	89

# LIST OF TABLES

<u>Table No.</u>		<u>Page</u>
1	Proposed Project Vehicular and Bicycle Parking Requirements	12
2	Proposed Project and Existing On-Site Uses Trip Generation Estimates	43
3	Project-Related General Geographic Trip Distribution Percentages	45
4	Level of Service ("LOS") as a Function of HCM Average Vehicle Delay	69
5	HCM "Delay-Based" Intersection Operations Analysis Summary – Existing (2021) and Future (2027) Peak Hour Conditions	71
6	Proposed Project and Existing On-Site Uses Public Transportation Ridership Estimates	85

### INTRODUCTION

This report summarizes the results of a transportation assessment related to the development of a proposed new residential and commercial mixed-use project at 688 S. Cochran Avenue, in the Miracle Mile community of the City of Los Angeles. The project site is located on the north side of Wilshire Boulevard between Cochran Avenue and Cloverdale Avenue and is currently occupied by an approximately 22,162 square foot Staples office supply store (5407 Wilshire Boulevard), and a separate, approximately 16,383 square foot commercial building ("Wilshire Beauty Supply", et al., 5401 Wilshire Boulevard), both of which are currently active. The proposed project will demolish the Staples store, and preserve and incorporate portions of the 5401 Wilshire Boulevard building into the new development, which itself will contain a total of up to 348 residential apartments (310 market-rate and 38 "affordable" units), above a total of approximately 12,821 square feet of commercial floor area, including a total of about 7,378 square feet of general retail uses, a total of about 4,443 square feet of restaurant space, and an approximately 1,000 square foot café. The location of the proposed project within the larger surrounding vicinity is shown in Figure 1.

Parking for the proposed project will be provided within an on-site, multi-level (above-grade and subterranean) parking garage containing a total of approximately 478 vehicular parking spaces (76 "commercial"/residential guest spaces and 402 "resident-only" spaces), along with a total of about 200 bicycle parking spaces (172 long term, 28 short term). Primary vehicular access to the project's parking garage will be provided by two (two-way) driveways, with one driveway, located near the northern project boundary along Cochran Avenue, providing exclusive access to two above-grade (typical self-park operations) "commercial"/residential guest parking levels, and the second driveway, located near the northern site boundary along Cloverdale Avenue, accessing three subterranean (automated) "resident" parking levels. The project will also include a separate one-way "drive-through" lane serving an on-site passenger drop-off/pick-up area for "transportation network company" vehicles (ride-hailing services such as Uber, Lyft, taxis, etc.) and the project's on-site loading docks, accessed via a right-turn only entry driveway from Cochran Avenue and a right-turn only exit driveway to Cloverdale Avenue, each located just to the south of the primary parking garage access driveways on those streets described earlier.

The project applicant retained Hirsch/Green Transportation Consulting, Inc. to evaluate the potential transportation impacts of the proposed development, based on the requirements and methodologies identified in the City of Los Angeles Department of Transportation's ("LADOT") Transportation Assessment Guidelines ("TAG", July 2020). These guidelines include analyses



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used to determine a proposed project's consistency with adopted City plans and policies related to the City of Los Angeles' recently adopted vehicle miles traveled ("VMT") evaluation criteria, as required under the current California Environmental Quality Act ("CEQA"). The TAG also contains additional "non-CEQA" evaluations for identifying potential project-related effects on local vehicular, pedestrian, bicycle, and public transportation access, circulation, and safety.

The analysis methodologies and other assumptions utilized in these evaluations were provided to LADOT for their review in a draft memorandum of understanding (MOU") prior to the initiation of the analyses. Pursuant to LADOT's subsequent approval of the MOU (on February 2, 2020), this study contains an analysis of the regional VMT-related impacts of the proposed project (including an assessment of the "significance" of any such impacts). This study also includes an evaluation of the project's potential effects on operations at the two site-adjacent intersections (Wilshire Boulevard and Cochran Avenue, and Wilshire Boulevard and Cloverdale Avenue), and to the two site-fronting local-serving streets providing vehicular access to the project driveways (segments of Cochran Avenue and Cloverdale Avenue between the project site and 6<sup>th</sup> Street).

#### **PROJECT DESCRIPTION**

The project evaluated in this study is the proposed development of a new mixed-use (residential and commercial) project at 688 S. Cochran Avenue, on the north side of Wilshire Boulevard between Cochran Avenue and Cloverdale Avenue in the Miracle Mile area of Council District 4 of the City of Los Angeles. The project site consists of several lots (Lots 113, 114, and 185 – 187) within Tract 7705 of Assessor's Parcel Number ("APN") 5508-009-029, and one lot (Lot 112), also within Tract 7705, of APN 5508-009-001. As shown in Figure 2, the site is bounded by Wilshire Boulevard to the south, Cochran Avenue to the west, Cloverdale Avenue to the east, and existing residential developments to the north. The proposed project is anticipated to be completed and fully occupied and operational sometime in the first quarter of the year 2027.

The project site is currently occupied by several existing and active businesses, including an approximately 22,162 square foot Staples office supply store and associated surface parking lot (5407 Wilshire Boulevard), and a second building containing a total of about 16,383 square feet of retail and office uses, including the "Wilshire Beauty Supply" facility (5401 Wilshire Boulevard), along with its own small on-site surface parking lot (separate from the Staples store parking lot).

The proposed project will remove the Staples store building (including its surface parking lot and the parking lot for the adjacent 5401 Wilshire Boulevard building), and preserve and incorporate the street facades of the 5401 Wilshire Boulevard building into the new development, which itself will contain up to 348 residential apartments (310 market-rate and 38 "affordable") and a total of approximately 12,821 square feet of commercial floor area, including about 7,378 square feet of general retail space, about 4,443 square feet of restaurant area, and a 1,000 square foot café. Overall, the proposed project will result in a net increase of up to about 348 residential units and a net reduction of about 25,724 square feet of commercial space at the project site.

The project will provide a total of approximately 478 project-serving vehicular parking spaces, including about 402 "resident-only" spaces and about 76 commercial/residential guest spaces), within an on-site multi-level (two above-grade and three subterranean) parking garage accessed by two (two-way) "primary" driveways, each located near the northern border of the project site. The above-grade levels of the parking structure, containing 69 of the "commercial" parking spaces and two (2) "residential" Americans With Disabilities Act ("ADA") parking spaces, will operate as a typical "self-park" facility, with its exclusive access provided from Cochran Avenue, while the subterranean levels, housing 402 "resident-only" and seven (7) commercial parking spaces, will utilize "automated lifts", with its exclusive access located along Cloverdale Avenue. Additionally,



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**FIGURE 2** 

688 S. COCHRAN AVENUE PROJECT SITE LOCATION AND SURROUNDING AREA

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the project will include a separate, on-site one-way (eastbound) porte cochere, accessed via a right-turn only, entry-only driveway on Cochran Avenue and a right-turn only, exit-only driveway on Cloverdale Avenue, that will serve a passenger drop-off/pick-up area for ride-service vehicles (Uber, Lyft, taxis, etc.) as well as provide access to the project's on-site loading docks.

The proposed project's ground floor configuration is shown in Figure 3(a), with the above-grade and subterranean parking level layouts shown in Figures 3(b) and 3(c), respectively.

# **Project Parking Requirements**

The City of Los Angeles Zoning Code, a component of the City's Municipal Code ("LAMC"), identifies the general off-street (typically interpreted as "on-site") vehicular and bicycle-related parking requirements for a variety of typical land uses, including residential (apartment) and commercial (retail, restaurant, and cafe) uses similar to those contained in the proposed project. The vehicular and bicycle parking requirements for the proposed project (including for both its individual residential and commercial components) are discussed in the following pages.

# Project Vehicular Parking Requirements

# Residential Component

The vehicular parking requirements for residential (apartment) developments are typically based on the parking ratios identified in Section 12.21.A4 of the LAMC, which use a "per unit" ratio that varies depending on the number of "habitable rooms" provided within each unit, with larger units (i.e., units with more rooms) requiring more parking. While the definition of a "habitable room" can be somewhat subjective, the City typically requires a minimum of 1.0 parking space per unit for "studio" or "efficiency" units (one habitable room), 1.5 spaces per unit for one-bedroom units (two habitable rooms), and 2.0 spaces per unit for two-bedroom and larger units (any units with three or more habitable rooms). Note that the LAMC does not specifically identify a requirement that "guest parking" spaces be provided for residential apartment uses.

However, due to its affordable housing component, the proposed project is eligible for the City's Density Bonus Affordable Housing Incentives Program, as detailed in Section 12.22 A.25 of the LAMC (Ordinance No. 179681), and in Section 65915(p)(2) of the California Government Code. The Density Bonus program identifies a variety of incentives that are designed to encourage the development of new "affordable" housing units throughout the City, including reductions to the otherwise-required LAMC vehicular parking requirements, based on a subject project's proximity to public transit facilities and other eligibility requirements. Specifically, a project that is within





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688 S. COCHRAN AVENUE PROJECT ABOVE GRADE PARKING LEVELS



5411 WILSHIRE (2020 PROJECT) \ SITE LAYOUTS

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one-half mile of a "major transit stop" (such as a RapidBus stop or rail station), and provides a sufficient number of "affordable" housing units (a minimum of 10 percent "low-income" units or five percent "very low income" units) may apply the Density Bonus parking reduction incentives.

The project will provide 38 "affordable" residential units, including 29 "very low income" units (about 11 percent of the project's 260-unit base density) and nine (9) "moderate income" units (about three percent of the base density), and therefore, meets this Density Bonus requirement. Additionally, as described later in this report, the site of the proposed project currently exhibits a westbound stop for the Los Angeles County Metropolitan Transportation Authority ("Metro") RapidBus Line 720 approximately mid-block along its Wilshire Boulevard frontage, along with a stop for eastbound service for this line at the southwest corner of the site-adjacent intersection of Wilshire Boulevard and Cloverdale Avenue. Further, the project is located less than 600 feet to the west of the new Metro Purple Line (recently renamed the "D" Line) subway station that is currently under construction at the northwest corner Wilshire Boulevard and La Brea Avenue. Therefore, the proposed project will meet both the minimum "affordable" housing unit provision and transit-related eligibility requirements of the Density Bonus program.

The Density Bonus program parking reduction incentives include several options for calculating the project's residential component vehicular parking requirements. The developer has selected the option of providing one-half (0.50) parking space *per bedroom* for each unit (applicable to all units in the project, not just the "affordable" units), inclusive of both ADA-compliant (handicap) and residential guest parking spaces. The proposed project's 348 residential units (including the "affordable" units) are currently configured as 136 "studio/efficiency" units (136 bedrooms), 102 one-bedroom units (102 bedrooms), and 110 two-bedroom units (220 bedrooms), for a total of 458 bedrooms. Therefore, based on the selected Density Bonus parking reduction incentive, the proposed project will require a total of 229 "residential" vehicular parking spaces.

# Commercial Components

The LAMC vehicular parking requirements for commercial developments vary depending on the type of land use, with most "general retail" uses (such as those proposed for the subject project) required to provide a minimum of 4.0 parking spaces per 1,000 square feet of gross floor area, while typical restaurant uses (similar to that anticipated for the proposed project) are required to provide a minimum of 10.0 parking spaces per 1,000 square feet of gross floor area, although "small" restaurants (similar to the project's café) with floor areas of 1,000 gross square feet or less require parking at only 5.0 parking spaces per 1,000 gross square feet of floor space. Note that,

unless otherwise indicated, the LAMC's commercial use parking requirement ratios intrinsically include and are intended to accommodate the total parking demands associated with each of the various commercial uses, including parking utilized by both customers and employees.

As described earlier, the proposed project will include a total of approximately 7,378 square feet of local-serving general retail uses, along with about 4,443 total square feet of restaurant space, and a 1,000 square foot café. Based on the applicable LAMC parking ratios, the proposed project will require about 30 "retail" parking spaces, along with about 45 "restaurant" spaces, and about five (5) "café" spaces, or a total project "commercial" vehicular parking requirement of approximately 80 spaces. However, Section 12.21.A of the LAMC also includes provisions that allow for reductions to the number of commercial vehicular parking spaces required based on the amount of on-site bicycle parking spaces provided, at a ratio of one vehicular parking space removed for every four bicycle parking spaces provided, up to a maximum of 30 percent of the total commercial vehicular parking requirement. Although this provision would allow for the replacement of up to about 24 of the project's 80 required commercial vehicular parking spaces (with a total of 96 bicycle spaces), as detailed in the following pages, the proposed project will require a total of 18 bicycle parking spaces for its commercial vehicular parking requirement, and resulting in a final total commercial component parking requirement of 75 spaces.

### Project Bicycle Parking Requirements

The LAMC also includes requirements related to the provision of both long term and short term on-site bicycle spaces for most typical land uses, including apartments, restaurants and cafés, and general retail facilities similar to those associated with the proposed project. As detailed in the LAMC, long term bicycle parking spaces are intended for the use of a project's residents or employees, while short term bicycle parking spaces are provided for use by the general public and/or project guests or patrons. Table 12.21 A.16(a)(1)(i) of the current LAMC identifies a tiered bicycle parking requirement for residential developments, with the first 25 residential units (including both "market-rate" and "affordable" units) requiring long term bicycle parking at a ratio of 1.0 space per unit and short term bicycle parking at a ratio of 1.0 space for every 10 units, the next 75 units (units 26 to 100) requiring 1.0 long term bicycle parking space for every 1.5 units and 1.0 short term bicycle parking space for every 15 units, 1.0 long term bicycle parking space for every 100 residential units units 101 to 200), and 1.0 long term bicycle space for every four (4) units and 1.0 short term bicycle parking space for every 40 units for all remaining residential units.

Similarly, Table 12.21 A.16(a)(2) of the current LAMC indicates that on-site bicycle parking for the project's proposed general retail and (typical) restaurant components be provided at a ratio of 1.0 space per 2,000 square feet of floor area for both long term and short term spaces, with a minimum of two long term and two short term spaces required for each individual use, although "small" restaurants (such as the project's proposed café) are required only to provide a total of two long term and two short term bicycle parking spaces. Note that the Density Bonus incentives do not include any adjustments to the number of bicycle spaces required under the LAMC.

Based on these LAMC requirements, the proposed project will be required to provide a total of approximately 197 on-site bicycle parking spaces (171 long term and 26 short term), including about 179 bicycle parking spaces (162 long term and 17 short term) for its residential component and about 18 bicycle spaces (nine long term and nine short term) for its commercial component.

The vehicular and bicycle parking space requirements for the proposed project's residential and commercial components are summarized in Tables 1(a) and 1(b), respectively.

Table 1(a)
Proposed Project Vehicular and Bicycle Parking Requirements - Residential Component

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		Vehicular Parking Calculations				
		"Baseline" LAMC		"Density Bonus" Methodology <sup>[1]</sup>		
Proposed Use/Size		Parking Ratio	Spaces	Parking Ratio	Spaces	
Studio/Efficiency	136 units	1.00 space/unit	136 spaces	0.50 space/bedroom	68 spaces	
1-Bedroom	102 units	1.50 spaces/unit	153 spaces	0.50 space/bedroom	51 spaces	
2-Bedrooms	110 units	2.00 spaces/unit	220 spaces	0.50 space/bedroom	110 spaces	
3 or more Bedrooms	0 units	2.00 spaces/unit	0 spaces	0.50 space/bedroom	0 spaces	
Totals	348 units		509 spaces		229 spaces	

		Bicycle Parking Calculations			
		Parking	Parking I	Required	
Proposed Use/S	Size	Long Term *	Short Term *	Long Term Short Term	
Units 1 through 25	25 units	1.00 space/unit	1.00 space/10 units	25 spaces	3 spaces
Units 26 through 100	75 units	1.00 space/1.5 units	1.00 space/15 units	50 spaces	5 spaces
Units 101 through 200	100 units	1.00 space/2 units	1.00 space/20 units	50 spaces	5 spaces
Units 200 and above	148 units	1.00 space/4 units	1.00 space/40 units	37 spaces	4 spaces
Totals	348 units			162 spaces (179 tota	17 spaces

Note:

[1] Per State of California Government Code Section 65915(p)(2).

# Table 1(b) Proposed Project Vehicular and Bicycle Parking Requirements - Commercial Components

			Bicycle Parking Calculations			
	Vehicular Parking	Calculations	Parking Ratio	Parking Required		
Proposed Use/Size	Parking Ratio	Spaces	Long/Short Term *	Long Term	Short Term	
7,378 sq. ft. Retail (total)	4.00 /1,000 sq. ft.	30 spaces	1.00 /2,000 sq. ft.	4 spaces	4 spaces	
4,443 sq. ft. Restaurant	10.00 /1,000 sq. ft.	45 spaces	1.00 /2,000 sq. ft.	3 spaces	3 spaces	
1,000 sq. ft. Café <sup>[1]</sup>	5.00 /1,000 sq. ft.	5 spaces	2.0 per site (each)	2 spaces	2 spaces	
12,821 sq. ft. Subtotal Vehi	cle Parking Required	80 spaces	Total	9 spaces	9 spaces	
				(18 total	spaces)	
Vehicular Parking Reduction	n (for bicycle parking)	(5) spaces				
Adjusted Vehicle	e Parking Required	75 spaces				

Notes:

[1] "Small Restaurant" per LAMC Sect. 12.21.A.4(c)(4).

"\*" Parking requirements are identical for long term and short term bicycle parking for "retail", "restaurant", and café uses; minimum of 2 long term and 2 short term bicycle parking spaces required per use.

### Proposed Project Parking Supply

The project will provide a total of approximately 478 site-serving vehicular parking spaces, with about 402 "residential" spaces (including residential guest and handicap spaces), or 173 spaces more than are required under the Density Bonus incentive, and about 76 "commercial" spaces, one (1) space more than the LAMC requirement (with the allowed commercial parking reductions). Given the existing and future public transit options serving the project site and surrounding area, and the anticipated use of "ride service" vehicles (which exhibit no long term parking demands), the project is expected to provide sufficient vehicular parking to fully accommodate its demands, and as a result, no project-related parking "spill over" onto adjacent residential or arterial streets or into nearby off-street parking areas due to inadequate on-site vehicular parking is anticipated.

The proposed project will also provide a total of approximately 200 bicycle parking spaces (three more than required), including a total of 180 "residential" (162 long term, 18 short term) and 20 "commercial" (10 long term, 10 short term) bicycle spaces. Therefore, the project will provide sufficient bicycle parking to meet the applicable requirements for both its residential and commercial uses, and as such, no detrimental bicycle parking-related impacts are expected.

### **Project Vehicular Access and Operations**

As briefly described earlier, the primary vehicular access to the project's parking garage will be provided by two (two-way) driveways, one each on Cochran Avenue and Cloverdale Avenue, with both located near the northern boundary of the project site, approximately 200 feet north of Wilshire Boulevard. The Cochran Avenue driveway will serve the project's two above-grade, self-park "commercial" parking levels (which will also contain two ADA residential parking spaces and the five "car share" parking spaces), while the Cloverdale Avenue driveway will access the project's three subterranean (automated) "resident" parking levels. The proposed project will also include a separate one-way (eastbound) vehicular "porte cochere" that will provide access to an on-site passenger drop-off/pick-up area for "transportation network company" vehicles (ride services such as Uber, Lyft, taxis, etc.) and the project's loading docks. Vehicles will enter the porte cochere from a right-turn only (entry-only) driveway located along Cochran Avenue about 20 feet south of the primary "commercial" access driveway, and will exit the porte cochere onto Cloverdale Avenue via a right-turn only (exit-only) driveway located approximately 25 feet south of the primary "residential" access driveway, as shown previously in Figure 3(a).

Both the Cochran Avenue and Cloverdale Avenue "primary" parking garage access driveways are approximately 25 to 26 feet wide, which is consistent with LADOT recommendations for the widths for two-way driveways serving "commercial" and "multi-family residential" developments. However, as also identified in Figure 3(a), the project's porte cochere entry-only driveway along Cochran Avenue is proposed to be 26 feet in width, while the porte cochere exit-only driveway on Cloverdale Avenue is 22 feet wide. Although discussions with the City's Planning Department indicated that porte cochere entry and exit driveway widths of 16 feet are desirable, an analysis of both porte cochere driveways determined that the suggested widths cannot accommodate a typical "single-unit" (delivery) truck, which is the type of vehicle expected to utilize the project's on-site loading areas. As identified in Figures A-1(a) and A-1(b) in Appendix A of this document, the 16-foot driveways would not accommodate the "sweep path" of a typical "single-unit" truck, and therefore, the proposed driveway widths described above are recommended.

Finally, Wilshire Boulevard within the project vicinity, including adjacent to the project site itself, is included in the City's "High Injury Network", and pursuant to the City's "Vision Zero" program, the construction of new driveways along such roadways is generally prohibited, in order to provide for increased safety for both bicyclists and pedestrians. However, no project driveways are proposed to be located along Wilshire Boulevard, and as a result, the proposed project will comply with the "Vision Zero" vehicular access driveway location requirements.

### Project Transportation Demand Management ("TDM") Measures

The project will include several of the transportation demand management ("TDM") measures identified in the current TAG in order to reduce the number of vehicle trips generated, including but not limited to reduced vehicular parking (compared to the standard LAMC requirements), the provision of on-site bicycle parking spaces and related amenities, and transit information kiosks. While no other specific TDM measures are assumed for the purposes of either the project's CEQA or non-CEQA transportation analyses (as detailed later in this report), the project will comply with all applicable requirements of the City's current TDM Ordinance (in effect at the time of project approval), which may include additional measures such as on-site assistance to project residents and employees in identifying convenient public transit travel options and/or the formation of carpools or other ride-share programs, "unbundling" of parking for project residents, parking cash-out for site employees, and/or transit pass subsidies for residents and employees.

### **Required Project Roadway Improvements**

The LAMC requires that all development projects within the City improve the roadways and other transportation facilities along their site frontages to the rights-of-way and street widths appropriate to each street's classification and design specifications, as identified in the City's "Mobility Plan 2035". As noted earlier in this report, the project site is located on the north side of Wilshire Boulevard between Cochran Avenue and Cloverdale Avenue, with frontages along portions of each of these facilities, and as such, the proposed project will be responsible for improving each of these roadways to the applicable requirements.

The "Mobility Plan 2035" designates Wilshire Boulevard throughout the study area, including adjacent to the project site, as an "Avenue I (Secondary Highway)" facility. This designation exhibits a typical design standard of a total right-of-way dedication of 100 feet improved with a total roadway width of 70 feet, or a half-roadway width (centerline to face of curb) of 35 feet within a half right-of-way dedication (centerline to property line) of 50 feet (which includes both the 35-foot half-roadway itself and a 15-foot-wide sidewalk/parkway area). Wilshire Boulevard adjacent to the project site currently exhibits a half right-of-way dedication of 50 feet, along with a half-roadway improvement of approximately 40 feet and a 10-foot-wide sidewalk/parkway, and therefore meets the applicable half right-of-way dedication requirements while exceeding the required half-roadway width by five (5) feet, although the existing sidewalk/parkway is deficient of the 15-foot design standard width by this same amount. However, as identified in LAMC Section 12.37 (Subsection A.5), "no dedication shall be required where the existing right-of-way

*is equal to or greater than the street standard, even where the improved sidewalk does not meet the standard dimensions*". Therefore, since both the existing half right-of-way dedication and half-roadway width along Wilshire Boulevard adjacent to the project currently meets or exceeds the applicable requirements, no right-of-way dedications or roadway widenings are warranted.

Cochran Avenue, which serves as the western boundary of the project site, is designated as a "Collector" roadway, with a typical design standard of a total right-of-way dedication of 66 feet, improved with a total roadway width of 40 feet, or a half-roadway width of 20 feet (along with a 13-foot sidewalk/parkway area) within a 33-foot half right-of-way. Adjacent to the project site, Cochran Avenue currently provides a half right-of-way dedication of about 30 feet, along with an approximately 20-foot-wide half-roadway improvement. Therefore, in order to comply with the applicable "Mobility Plan 2035" specifications, the proposed project will be required to provide a right-of-way dedication of approximately three (3) feet along its Cochran Avenue frontage to allow for a wider sidewalk/parkway area, although no roadway widenings are necessary.

Cloverdale Avenue, which provides the eastern boundary of the project site, is classified in the "Mobility Plan 2035" as a "Local" street, which typically requires a total right-of-way dedication of 60 feet along with a total roadway improvement of 36 feet, or a half-roadway width of 18 feet (and 12-foot sidewalk/parkway) within a 30-foot half right-of-way dedication. Adjacent to the project site, Cloverdale Avenue currently provides the required 30-foot half right-of-way width, although it also exhibits a 20-foot-wide half-roadway and 10-foot-wide sidewalk/parkway area. As such, while the site frontage of Cloverdale Avenue meets the applicable "Mobility Plan 2035" right-of-way dedication requirements, it exceeds the required half-roadway width by two (2) feet, resulting in an associated two-foot deficiency in the required sidewalk/parkway width, although as noted earlier in the discussion of the Wilshire Boulevard roadway improvements, since both the existing half right-of-way and half-roadway widths along this segment of Cloverdale Avenue meet their respective requirements, no right-of-way dedication or street widening is necessary.

### **PROJECT CONTEXT (STUDY AREA)**

### **Environmental Setting**

The site of the proposed project is located along the north side of Wilshire Boulevard between Cochran Avenue and Cloverdale Avenue, in the Miracle Mile area of the City of Los Angeles, and is bordered by these three streets on the south, west, and east, respectively, as well as by existing multi-family residential developments along the north. In general, the project vicinity, defined in the current TAG as typically encompassing an approximately one-quarter mile radius surrounding the project site, is developed primarily with single and multi-family residential uses, although the frontages along most of the key arterial roadways serving the study area, including Wilshire Boulevard, exhibit medium to high-density retail and other commercial uses. As shown in Figure 4, the project vicinity (study area) includes the area generally bounded by 4<sup>th</sup> Street on the north, 9<sup>th</sup> Street on the south, Hauser Boulevard on the west, and Orange Drive (two blocks east of La Brea Avenue) on the east. Notable landmarks near the project (but outside of the study area itself) include the George C. Page Museum and La Brea Tar Pits, the Los Angeles County Museum of Art ("LACMA"), and the Petersen Automotive Museum to the west of the site along Wilshire Boulevard, and the Park La Brea residential community, Pan Pacific Park, and The Grove/Farmer's Market shopping and entertainment centers to the northwest of the site.

# **Area Transportation Facilities**

Regional access for the general project vicinity is provided primarily by three freeways, although the nearest of these facilities, the east-west oriented Santa Monica (I-10) Freeway, is located nearly two miles to the south of the project, while the generally northwest-to-southeast oriented Hollywood (US-101) Freeway is roughly three and one-half miles to the northeast, while the north-south oriented San Diego (I-405) Freeway is more than five miles to the west. However, while these freeways do not provide direct access to the study area, each exhibits a connection, via ramps for both travel directions on the subject freeways, to one of the key arterial roadways serving the immediate study area, including La Brea Avenue via the Santa Monica Freeway, Wilshire Boulevard via the San Diego Freeway, and Highland Avenue (located just to the east of the study area, as shown in Figure 4) via the Hollywood Freeway.

In addition to these regional transportation facilities, the immediate project vicinity is served by a well-developed surface street network, including arterials, collector roadways, and local streets that serve as important connections to and through the study area, and provide local access to





area residents and businesses. Several public transportation options (primarily, bus lines) also provide service to the project site and/or the general vicinity. The key transportation facilities within the immediate study area, including arterial roadways and local-access surface streets, and existing bicycle facilities and public transit services, are described in the following pages.

### Streets and Highways

### Boulevards and Avenues (Major and Secondary Highways)

Wilshire Boulevard – This east-west oriented roadway, located along the southern boundary of the project site, is a key transportation thoroughfare through the western portion of Los Angeles, providing an uninterrupted connection between Ocean Avenue in the City of Santa Monica on the west and its eastern terminus at Grand Avenue in downtown Los Angeles, passing through the West Los Angeles and Westwood communities of the City of Los Angeles, the City of Beverly Hills, and the Westlake area of Los Angeles along its route. Running roughly parallel to the Santa Monica (I-10) Freeway about two miles to the south, Wilshire Boulevard also provides a highly utilized alternative to that regional transportation facility. Throughout the study area, Wilshire Boulevard is designated as an "Avenue I (Secondary Highway)" facility, with a posted speed limit of 35 miles per hour ("mph"), and typically provides two through lanes per direction, plus dedicated left-turn lanes at most intersections. On-street time-restricted metered parking is generally permitted along both sides of Wilshire Boulevard within the study area but is prohibited during the peak weekday commute traffic periods (7:00 to 9:00 AM, 4:00 to 7:00 PM) in order to provide for a "Bus Only" transit priority lane in each direction during these times. Additionally, Wilshire Boulevard in the project vicinity is a part of the High Injury Network ("HIN") identified in the City's Vision Zero program, which identifies measures and programs designed to improve or enhance pedestrian and bicyclist safety, including prohibitions or restrictions on the number and locations of driveways on HIN facilities. Portions of Wilshire Boulevard, including adjacent to the project site, are within a Pedestrian Enhanced District ("PED"), and are also designated as a "Comprehensive Transit Enhanced Street" as a part of the Transit Enhanced Network ("TEN") described in the City's "Mobility Plan 2035". Finally, Wilshire Boulevard within the study area is also identified as a part of the Mobility Plan 2035's Bicycle Enhanced Network ("BEN"), and is programmed for the future installation of a Priority Bicycle Lane throughout the project vicinity.

La Brea Avenue – This north-south oriented roadway, located two blocks east of the project site, provides an important travel route from Franklin Avenue on the north through the eastern part of the City of West Hollywood, and the Miracle Mile, Baldwin Hills, and Inglewood communities of

the City of Los Angeles, to its southern terminus at Century Boulevard in the City of Inglewood, opposite Hawthorne Boulevard, which itself continues southward through the Palos Verdes and Rolling Hills areas to its terminus at Palos Verdes Drive (West). La Brea Avenue is designated as an "Avenue I (Secondary Highway)" facility with a posted speed limit of 30 mph throughout the project vicinity, and is typically configured to provide two through lanes in each direction, along with mid-block two-way left-turn channelization that converts into dedicated left-turn lanes at key intersections. On-street time-restricted metered parking is typically allowed on both sides of the street along most segments of La Brea Avenue throughout the day, although all on-street parking is prohibited during the peak commute traffic periods (7:00 to 9:00 AM, 4:00 to 7:00 PM) to accommodate a third travel lane per direction during these times. La Brea Avenue through the study area is located within a Pedestrian Enhanced District ("PED"), and is designated as a "Comprehensive Transit Enhanced Street" within the Transit Enhanced Network ("TEN") of the Mobility Plan 2035, and is also programmed for the future installation of a "Tier 3" Bicycle Lane throughout the project vicinity as part of the Bicycle Enhanced Network ("BEN").

6<sup>th</sup> Street – This east-west oriented roadway is located one block to the north of the project site, and is designated as an "Avenue II (Secondary Highway)" facility to the east of Fairfax Avenue, including through the study area, but is downgraded to a "Collector Street" classification west of Fairfax Avenue. 6<sup>th</sup> Street provides a connection from San Vicente Boulevard on the west to downtown Los Angeles, where it becomes the westbound component of a one-way couplet with 5<sup>th</sup> Street from Beaudry Avenue to Central Avenue, before reverting to two-way operations and continuing to its eastern terminus at Mission Road on the east side of downtown Los Angeles. Within the study area, 6<sup>th</sup> Street exhibits a posted speed limit of 35 mph, and is generally striped to provide two through lanes in each direction during the peak weekday commute traffic periods (7:00 to 9:00 AM, 4:00 to 7:00 PM). On-street weekday parking is prohibited on the south side of the street from 7:00 AM to 7:00 PM, but is permitted along the north side of the street during the "off-peak" periods, thereby reducing westbound travel to only one lane during these times; on-street parking is generally permitted along both sides of the street west of Dunsmuir Avenue. Left-turn lanes are not provided on 6<sup>th</sup> Street in the study area except at Hauser Boulevard, and left-turn prohibitions exist during both the morning and evening peak commute traffic periods for both directions of travel at several intersections within the study area, including La Brea Avenue, and Cochran Avenue. 6th Street is included in the Neighborhood Enhanced Network ("NEN") of the Mobility Plan 2035, and also a part of the Bicycle Enhanced Network ("BEN"), and includes the future installation of a "Tier 1" Protected Bicycle Lane through much of the study area.

### Collector and Local Streets

Hauser Boulevard – This north-south oriented roadway, located about one-quarter mile west of the project, provides a connection from 3rd Street, northwest of the study area, on the north to Jefferson Boulevard in the Baldwin Village community of the City of Los Angeles on the south; north of 3<sup>rd</sup> Street, Hauser Boulevard becomes Martel Avenue, which itself continues northward into the Hollywood community of the City of Los Angeles (although the roadway is discontinuous at several locations north of Santa Monica Boulevard). Within the study area, Hauser Boulevard is designated as a "Collector" street, with posted speed limits of 30 mph south of 6<sup>th</sup> Street and 25 mph to the north of 6<sup>th</sup> Street (as it passes through the Park La Brea residential community), and is typically configured to provide one through lane plus on-street parking in each direction (except along the east side of the street between Wilshire Boulevard and 8<sup>th</sup> Street, where it also exhibits median two-way left-turn channelization throughout the block), although additional dedicated left-turn and/or right-turn lanes are also provided at all intersections in the study area, including at 6<sup>th</sup> Street, Wilshire Boulevard, and 8<sup>th</sup> Street. Hauser Boulevard is also identified as a part of the Neighborhood Enhanced Network ("NEN") in the Mobility Plan 2035.

Cochran Avenue – This roughly north-south oriented facility serves as the western boundary of the project site, and provides a connection between 3<sup>rd</sup> Street in the study area on the north and Sanchez Drive, near the Kenneth Hahn State Recreation Area in the Baldwin Village area of the City of Los Angeles, on the south, although the roadway is discontinuous at multiple locations to the south of Washington Boulevard, including across the Santa Monica (I-10) Freeway corridor. Within the study area, including adjacent to the project site, Cochran Avenue is designated as a "Collector" street, and as such, although not specifically posted, exhibits a de facto speed limit of 25 mph. Cochran Avenue typically provides one lane in each direction plus on-street parking on both sides of the street, except along the west side of the roadway to the south of 8th Street. All of the intersections along Cochran Avenue through the project vicinity, including at 6<sup>th</sup> Street, Wilshire Boulevard, and 8<sup>th</sup> Street, are traffic signal controlled. Additionally, Cochran Avenue through the study area, including adjacent to the project site, is a part of the Mobility Plan 2035's Neighborhood Enhanced Network ("NEN") and Bicycle Enhanced Network ("BEN").

Cloverdale Avenue – This north-south oriented roadway is located along the eastern boundary of the project site, and like Cochran Avenue, generally provides a connection from 3<sup>rd</sup> Street on the north to near the Kenneth Hahn State Recreation Area on the south. However, this facility is discontinuous at several locations south of the study area, including at San Vicente Boulevard, Venice Boulevard, and Washington Boulevard, while at its northern end, Cloverdale Avenue

terminates at 6<sup>th</sup> Street opposite Formosa Avenue, which is a one-way (southbound) roadway south of 3<sup>rd</sup> Street (although it exhibits two-way operations north of 3<sup>rd</sup> Street), and as a result, the use of Cloverdale Avenue as a convenient travel route beyond the immediate project vicinity is relatively limited. Through the study area, Cloverdale Avenue is classified as a "Local" street, and therefore, although not specifically posted, exhibits a de facto speed limit of about 20 mph. Cloverdale Avenue typically provides one travel lane plus on-street parking in both directions, and its site-adjacent intersection with Wilshire Boulevard is controlled with a traffic signal.

8<sup>th</sup> Street – This east-west oriented roadway is located approximately one block south of the project site, and provides a connection between its western terminus at Fairfax Avenue through the study area to Garland Avenue, about one block west of the Harbor (SR-110) Freeway on the west side of downtown Los Angeles, where it becomes the westbound half of a one-way couplet with 9<sup>th</sup> Street to Santee Street before converting back to two-way operations and continuing eastward to its ultimate terminus just east of Central Avenue. Within the study area, 8<sup>th</sup> Street is classified as a "Collector" street, and is typically configured with one travel lane in each direction along with on-street parking on both sides of the street, and with dedicated left-turn lanes at key locations, including at its intersections with La Brea Avenue, and Hauser Boulevard. 8<sup>th</sup> Street is identified as a part of the Neighborhood Enhanced Network ("NEN") in the Mobility Plan 2035.

In addition to these key roadways, each of which are expected to serve as typical travel routes to and from the project site, and therefore, exhibit some level of project-related traffic, as shown earlier in Figure 4, the study area also includes several other local-serving roadways, including the north-south oriented Ridgeley Drive, Burnside Avenue, and Dunsmuir Avenue, all located to the west of the project site, Detroit Street, Sycamore Avenue, and Orange Drive east of the site, and the east-west oriented 4<sup>th</sup> Street to the north and 9<sup>th</sup> Street to the south of proposed project. Each of these facilities is designated as a "Local" street, and is typically configured to provide one travel lane in each direction plus on-street parking along both sides of the street. However, due to their locations relative to the proposed project, none of these roadways is anticipated to exhibit any substantial project-related traffic or serve as access routes to or from the project site.

### **Bicycle Facilities**

Although as described in the preceding discussions many of the roadways in the project vicinity are identified as part of the City's Mobility Plan 2035 Bicycle Enhanced Network ("BEN") and/or Neighborhood Enhanced Network ("NEN"), which advocate for improvements to those facilities that include the installation of dedicated bicycle lanes and other bicycle-related safety features

or improvements, a review of the project area indicates that only two of the subject streets currently provide any bicycle facilities. 4<sup>th</sup> Street throughout the project vicinity is striped with shared lane markings, also known as "sharrows", which alert vehicle drivers that the roadway is to be shared with bicyclists, while the segment of Hauser Boulevard from 6<sup>th</sup> Street to 3<sup>rd</sup> Street (through the Park La Brea residential community) exhibits a dedicated (striped) bicycle lane in each direction of travel (also identified as a Caltrans "Class II" bikeway).

### Public Transportation

The current public transportation service within the immediate project vicinity consists primarily of multiple-stop, local-serving bus lines that provide convenient access to nearby shopping, business, and recreation/entertainment destinations, although some limited-stop express and regional commuter bus service is also available. The bus services in the study area are operated primarily by the Los Angeles County Metropolitan Transportation Authority ("Metro"), which provides a total of four bus lines, including both local-stop (Line 20 and Lines 212/312) and regional/commuter service (RapidBus Line 720), with additional limited-stop bus service through the study area provided by the local-serving DASH Fairfax Route operated by LADOT, and by the Antelope Valley Transportation Authority's ("AVTA") regional commuter Route 786.

Each of these bus lines provide project-serving stops located within convenient walking distance (generally, about one-quarter mile) of the project along Wilshire Boulevard or La Brea Avenue. Further, while other bus lines within the general study area are considered to be too far from the project site to be used directly, most of these more distant services can be easily accessed via connections to or transfers from the various project-serving lines to provide access between the project site and the larger regional area. A map of the existing public transportation service in the general vicinity of the proposed project is shown in Figure 5, while the individual bus lines serving the project site itself are described in the following pages; route maps and schedules for each of the current project-serving bus lines are provided in Appendix B of this report.

Additionally, the extension of the Metro Purple Line (recently renamed the "D" Line) subway from its current terminus at Wilshire Boulevard and Western Avenue is now under construction, which upon its completion, will provide direct service between downtown Los Angeles and the Westwood area of the City of Los Angeles. The first section of the Purple ("D") Line extension, from Western Avenue to La Cienega Boulevard, which will include a new project-serving station at Wilshire Boulevard and La Brea Avenue, is scheduled for completion in 2023. A fact sheet containing information on the Purple ("D") Line extension project is also provided in Appendix B.



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24

Metro Line 20 – This line provides weekday, weekend, and holiday local-stop service between downtown Los Angeles and downtown Santa Monica, travelling primarily on Wilshire Boulevard along its route, including through the study area and past the proposed project, where it exhibits a site-serving stop for westbound service adjacent to the project site (about mid-block between Cochran Avenue and Cloverdale Avenue) along with an eastbound service stop located across Wilshire Boulevard at the southwest corner of its intersection with Cloverdale Avenue. Line 20 also provides stops that allow connections to the existing Metro Red Line (now "B" Line) and Purple Line (aka, "D" Line) subway stations along its route. The operating hours for Line 20 are essentially 24 hours per day on weekdays (although service west of Westwood Boulevard is provided only during the late night/early morning hours from about 10:00 PM to about 7:00 AM), with typical headways of 10 to 15 minutes in each direction through the project vicinity during both the morning and afternoon peak periods. The Line 20 operations are reduced on both weekends and holidays, with limited service hours only from about 4:00 AM to about 11:00 PM (with no service west of Westwood Boulevard between about 7:00 AM and 10:00 PM), and headways of 15 to 20 minutes on Saturdays, and 20 to 25 minutes on Sundays and holidays.

Metro Lines 212/312 – Lines 212 and 312 provide weekday, weekend, and holiday service from the Metro Red Line ("B" Line) Hollywood/Vine Station in the Hollywood community of the City of Los Angeles on the north to the Metro Green Line ("C" Line) Hawthorne/Lennox Station in the City of Hawthorne on the south, with both lines travelling primarily on La Brea Avenue throughout their routes, including in the study area. Line 212 is a multi-stop local service line, with project-serving stops for both directions of travel on La Brea Avenue at the intersections of 6<sup>th</sup> Street, Wilshire Boulevard, and 8<sup>th</sup> Street, while Line 312 provides only limited-stop service, but shares all project-serving stops with Line 212 (except for the northbound stop at 6<sup>th</sup> Street). Weekday hours of operation for Line 212 are from about 4:30 AM and 2:45 AM, with headways of 10 to 15 minutes in both directions during the morning peak period, and of 15 to 25 minutes in each direction during the evening peak period. Line 212 exhibits slightly shorter operating hours on weekends and holidays, with service provided between 5:30 AM to 2:45 AM on these days, although on Saturdays, typical headways are about 15 to 30 minutes in both directions of travel throughout the day, while somewhat longer headways of about 20 to 30 minutes per direction are typical for Line 212 service on both Sundays and holidays. Line 312 is a weekday-only line providing northbound-only service (Hawthorne to Hollywood) from about 6:00 AM to 9:00 AM, and southbound-only service (Hollywood to Hawthorne) between about 3:00 PM and 6:00 PM, with typical headways of 10 to 20 minutes in each direction during both time periods.

Metro RapidBus Line 720 – This is a limited-stop express bus line that provides service between the City of Commerce/East Los Angeles area of unincorporated Los Angeles County and the City of Santa Monica, travelling primarily along Whittier Boulevard, 5<sup>th</sup> Street, and 6<sup>th</sup> Street to the east of and through downtown Los Angeles, and then along Wilshire Boulevard for most of the remainder of its route, including through the project vicinity, and shares project-serving stops for both directions of service with Metro Line 20 (about mid-block between Cochran Avenue and Cloverdale Avenue for westbound service, and for eastbound service at the southwest corner of the intersection of Wilshire Boulevard and Cloverdale Avenue, as described earlier for Line 20). This line operates on weekdays, weekends, and holidays, with weekday service provided from about 4:00 AM to 2:30 AM, with typical headways during the peak morning commute period of about 10 minutes for eastbound travel and about five minutes for westbound travel, with those headway times reversed during the peak evening commute period. On weekends and holidays, RapidBus Line 720 is in operation from about 5:30 AM to about 1:15 AM, with typical headways of about 15 to 20 minutes for eastbound service and five to 10 minutes for westbound service during the morning peak commute period, and of about 10 minutes for eastbound service and between 10 and 15 minutes for westbound service during the peak evening commute periods. As described earlier in this report, during the peak weekday commute periods, (7:00 to 9:00 AM, 4:00 to 7:00 PM), RapidBus Line 720 utilizes a dedicated "Bus Only" transit priority lane that is provided in each direction of Wilshire Boulevard throughout the project vicinity.

LADOT DASH Fairfax – This local-access line provides limited weekday and Saturday service generally between the Cedars-Sinai Medical Center and the Park La Brea/Museum Row area near the proposed project, including a stop along Wilshire Boulevard adjacent to the project site. This DASH line performs a one-way (clockwise) loop around the Cedars-Sinai Medical Center and nearby Beverly Center retail center before using La Cienega Boulevard, Melrose Avenue, and Fairfax Avenue to travel to and provide service for the study area, where it again performs a one-way (clockwise) loop along 3<sup>rd</sup> Street, Hauser Boulevard, 6<sup>th</sup> Street, La Brea Avenue, and Wilshire Boulevard before again accessing Fairfax Avenue for a return trip via the reverse route. The operating hours for the DASH Fairfax line are between 7:00 AM to 6:30 PM on weekdays and between 9:00 AM to 6:30 PM on Saturdays, with 30-minute headways in the project vicinity and along its entire route throughout its service periods on both weekdays and Saturdays.

AVTA Route 786 -- This commuter bus line provides weekday "inbound" morning service from and "outbound" afternoon/evening service to the cities of Lancaster and Palmdale on the north and the Westwood, West Los Angeles, Century City, Mid-City, and Hollywood communities of the City of Los Angeles and portions of the City of Beverly Hills. Upon exiting the freeway to access the local street system, Route 786 travels along Gayley Avenue, Westwood Boulevard, and Santa Monica Boulevard before travelling into the project vicinity along Wilshire Boulevard, including past the proposed project, where it provides a site-stop between Cochran Avenue and Cloverdale Avenue (shared with Metro Line 20 and RapidBus Line 720, as described earlier) before continuing along La Brea Avenue to its morning service terminus in Hollywood; during its afternoon/evening "outbound" service, Route 786 travels along essentially the reverse path. Route 786 provides five "inbound" runs per day, beginning in the Lancaster/Palmdale area at 4:00 AM, with buses departing every 20 to 30 minutes until about 5:40 AM; morning service at the project site itself is provided at approximately these same intervals between about 6:15 AM and 7:45 AM. Similarly, Line 786 provides five "outbound" runs per day, beginning at 2:50 PM at the Hollywood stop (Santa Monica Boulevard and La Brea Avenue) with the remaining buses departing at 20 to 30 minute intervals until about 4:50 PM, resulting in service at the project site istelf services and and 5:00 PM.

Therefore, as briefly described in the preceding pages, both local-stop and regionally-oriented public transit services are available at the project site, either directly (via site-serving stops) or through transfers to or from other more distant transit lines, and as such, it is anticipated that some residents, visitors, employees, and patrons of the proposed project will use public transit as a regular mode of transportation. Additionally, project-related utilization of public transit is expected to increase in the future as a result of the extension of the Metro Purple ("D") Line from its current terminus at Wilshire Boulevard and Western Avenue to La Cienega Boulevard, including a new station located about two blocks east of the project site at the northwest corner of Wilshire Boulevard and La Brea Avenue. This new subway service is expected to become operational by the year 2023, about four years prior to the completion of the proposed project.
## CALIFORNIA ENVIRONMENTAL QUALITY ACT ("CEQA") IMPACT ANALYSES

Pursuant to the State of California's adoption of Senate Bill 743 ("SB 743"), the primary metric for evaluating the potential environmental impacts of proposed development projects has shifted from the previous intersection and street level of service ("LOS") methodology to an evaluation of vehicle miles traveled ("VMT"), in order to reduce greenhouse gas emissions ("GHG"), create or expand sustainable multi-modal transportation networks that encourage and support the use of alternate travel modes (public transit, bicycling, walking, etc.) to reduce the dependence on single-occupant vehicles, and promote mixed-use developments such as the proposed project.

The procedures associated with the VMT evaluation methodologies are described in LADOT's Transportation Assessment Guidelines ("TAG", July 2020), including criteria for determining the need for such analyses related to the current California Environmental Quality Act ("CEQA"), specifically, the proposed project's consistency with adopted City plans and policies, as well as for non-CEQA evaluations of any potential project-related effects on local vehicular, pedestrian, bicycle, and public transportation access, circulation, and safety. In general, the TAG identifies that development projects which require discretionary action (by the City) must assess whether the project would conflict with or preclude the implementation of any City programs, plans, ordinances, or policies associated with the transportation system in the project vicinity, result in substantial additional traffic (including VMT), or require changes to the area roadway system. CEQA currently evaluates a project's transportation impacts based on the following thresholds:

- Conflicting with Plans, Programs, Ordinances, or Policies
- Causing Substantial Vehicle Miles Traveled ("VMT")
- Substantially Inducing Additional Automobile Travel
- Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use

# Conflicting with Plans, Programs, Ordinances, or Policies (Threshold T-1)

This CEQA impact criterion identifies whether a proposed development project is consistent with major City goals for achieving an accessible and sustainable transportation system by reducing the number of vehicle miles traveled, and providing safe and convenient streets for all users, including pedestrians, bicyclists, motorists, and public transit riders. The TAG provides a list of the applicable plans and policies, along with a checklist of "guiding" questions to assist with the evaluation of the proposed project's compatibility with the City's transportation goals.

Specifically, the TAG identifies the following City plans, policies, and ordinances for review:

- Los Angeles (City) Mobility Plan 2035
- Plan for a Healthy Los Angeles
- Specific Plans (as appropriate)
- Los Angeles Municipal Code (LAMC) Section 12.21 A.16 (Bicycle Parking)
- LAMC Section 12.26 J (Transportation Demand Management ["TDM"] Ordinance)
- Vision Zero Action Plan and Corridor Plans
- Streetscape Plans
- Citywide Design Guidelines:
  - Guideline 1: Promote a safe, comfortable, and accessible pedestrian experience for all
  - Guideline 2: Carefully incorporate vehicular access such that it does not degrade the pedestrian experience
  - $_{\odot}$  Guideline 3: Design projects to actively engage with streets and public space and maintain human scale

Attachment D of the current (July 2020) LADOT TAG provides a worksheet for use in determining the proposed project's consistency with the City's various transportation-related plans, policies, and ordinances, and the responses to the various "guiding" questions contained in that worksheet are provided in Appendix C of this report. Based on this worksheet, the proposed project is either compatible with the relevant criteria associated with the plans and policies listed above and/or identified in Attachment D of the TAG, or will not preclude the implementation of any elements of those plans/programs related to providing and maintaining a sustainable transportation network.

Specifically, the project is consistent with the access-related guidelines of the Mobility Plan 2035 and Vision Zero policies, with no vehicular access (driveways) proposed along Wilshire Boulevard (which as described earlier in this report, is part of the City's High Injury Network). Additionally, the proposed project will maintain or increase (via a three-foot dedication on Cochran Avenue) the existing sidewalk widths adjacent to its frontages, retain the existing signalized crosswalks at the site-adjacent intersections along its Wilshire Boulevard frontage (at Cochran Avenue and Cloverdale Avenue), and locate all project parking in an on-site parking garage accessed from the side streets fronting the site (no on-street parking is proposed or affected by the project), thereby providing safe and convenient pedestrian circulation consistent with the objectives of the City's Walkability Checklist. It is also of note that "Walk Score" (www.walkscore.com), which

calculates the "walkability" of a site based on the availability of pedestrian-accessible services, businesses, and recreation/entertainment venues and other amenities within its general vicinity, assigns a score of 96 out of 100 to the proposed project's "688 S. Cochran Avenue" address, indicating a substantially reduced reliance on automobile travel to accomplish typical daily tasks (Walk Score is not affiliated with the City of Los Angeles). Further, the project will both provide reduced vehicular parking compared to that typically required by the LAMC, and conform to the LAMC's bicycle parking requirements, and is therefore consistent with the City's policies related to the reduction of both vehicle trips and VMT through the implementation of these measures.

The project is located within the Wilshire Community Plan area of the City of Los Angeles and the Miracle Mile Community Design Overlay district, and will be consistent with both the current City of Los Angeles zoning for the site, including Q Conditions imposed in the subject portion of the Miracle Mile corridor, and the additional requirements of the applicable community plan and design overlay district, including floor area, density, height, and other site-related development and design standards, all of which are also pertinent to the project's consistency with the City's long-range transportation goals. Further, the project will designate 29 of its 348 residential units (approximately 11 percent of its 260-unit base density) as "very low income" units, along with an additional nine (9) units (about three percent) set aside as "moderate income" units. As a result, the project will provide much-needed affordable housing within 1,500 feet of a "transit stop", defined in the LAMC as a RapidBus stop, such as for the Metro Line 720 (which exhibits a stop immediately adjacent to the project site), and/or a station for fixed-rail transit systems, such as the future Metro Purple ("D") Line subway station (located about 600 feet east of the site), and is therefore consistent with the Affordable Housing Incentives (Density Bonus) guidelines described in Section 12.25 A of the LAMC, pursuant to California Government Code Section 65915.

Therefore, the proposed project will conform to, or will not preclude the future implementation of, any of the applicable plans, programs, and policies related to the City's transportation network, and as a result, no significant CEQA-related impacts in this regard are anticipated.

## Causing Substantial Vehicle Miles Traveled (Threshold T-2.1)

This CEQA impact criterion is used to determine whether a proposed project would result in a significant increase in the number of vehicle miles traveled ("VMT"), based on its consistency with Section 15064.3, Subdivision (b)(1) of the current CEQA Guidelines, which discusses the specific considerations for evaluating a project's impacts to the City's transportation network, noting that "...[generally], projects within one-half mile of either an existing major transit stop or

a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact". As described earlier in this report, the proposed project is located along Wilshire Boulevard, which is designated as a Transit Enhanced Corridor in the City's Mobility Plan 2035 (served by Metro RapidBus Line 720, including a project-serving stop between Cochran Avenue and Cloverdale Avenue), and is within 600 feet of the entrance to the new Metro Purple Line ("D" Line) extension station at Wilshire Boulevard and La Brea Avenue (currently under construction), and as such, conforms to the referenced CEQA policy.

However, the TAG, which is consistent with the State-mandated requirements of SB 743, also includes two additional criteria for evaluating a project's potential VMT-related impacts:

- Would the land use project generate a net increase of 250 or more daily vehicle trips; and
- · Would the project generate a net increase in daily VMT

In order to assess whether a subject project would result in 250 or more net daily vehicle trips, and therefore be required to prepare a detailed VMT impact analysis, the TAG recommends the use of LADOT's new VMT Calculator, which is the primary tool for evaluating the trip generation and VMT-related impacts associated with a new development. The VMT Calculator identifies the number of "daily" (24-hour) trips associated with both the proposed project itself, as well as any existing on-site development that may be removed to construct the proposed project, based on the 9<sup>th</sup> Edition of the Institute of Transportation Engineers ("ITE") *Trip Generation* manual (the current version of that document at the time the VMT Calculator was being developed, although it has since been superseded by the 10<sup>th</sup> Edition of that publication, issued in September 2017), as well as data from the San Diego Association of Governments ("SanDAG") and other sources.

Similarly, the VMT calculations for the both the proposed project and existing on-site land uses also utilize a variety of sources, including the City's current Travel Demand Forecasting Model, along with other assumptions related to the type and lengths of the trips generated by each of the various project-related land uses, such as "Home-Based Work", "Home-Based Other", and "Non-Home Based" "production" and "attraction" trips, and adjustments to account for the effects of on-site interactions between multiple land uses included in "mixed-use" developments such as the proposed project, in order to estimate the daily trips and "per capita" VMT associated with each of those uses. The data sources, assumptions, and analysis methodologies included in the VMT Calculator are detailed in the "*City of Los Angeles VMT Calculator Documentation*" provided for the VMT Calculator, and which is incorporated into this document by reference.

The current version of the VMT Calculator (Version 1.3) provides a "screening" page for use in determining whether a project meets the VMT evaluation thresholds described earlier, and would therefore be required to prepare a detailed VMT impact analysis. Finally, the VMT Calculator also includes a number of "project feature" and "mitigation"-related adjustments that can affect both the trip generation and VMT calculations for a proposed project. For the purposes of screening the applicability of these thresholds to the proposed project, no such adjustments are allowed, although the daily traffic and VMT generated by any existing uses occupying the project site that will be removed can be credited against the proposed project's own trip and VMT estimates.

As described earlier, the project site is currently occupied by a total of about 38,545 square feet of commercial and retail land uses, including a 22,162 square foot Staples store and a separate 16,383 square foot commercia/retail building (5401 Wilshire Boulevard), which will be removed (Staples) or incorporated (façades) into the new development (5401 Wilshire Boulevard building). The proposed project itself will contain a total of up to 348 residential apartment units (including about 38 "affordable" units) and a total of approximately 12,821 square feet of ground floor retail and other commercial uses, including about 7,378 square feet of retail, about 4,443 square feet of restaurant space, and an approximately 1,000 square foot café.

## VMT Analysis "Screening" Procedure and Results

The VMT Calculator includes trip generation and VMT-related data for several typical land uses, although it does not provide any information related to "big box" or "superstore" uses such as the existing on-site Staples store or for the proposed project's café component. However, the VMT Calculator does allow users to input such data for "custom" land uses that are not included in the program, based on empirical data or trip generation and trip-making characteristics from other sources, such as the Institute of Transportation Engineers ("ITE") *Trip Generation* manual.

Therefore, the daily trip generation estimates associated with the existing on-site Staples store and the project's proposed café component (based on ITE trip generation data) were obtained either from empirical counts performed at the project site driveways (existing Staples store), or were estimated via supplemental trip generation calculations (utilizing the current 10<sup>th</sup> Edition of the ITE *Trip Generation* manual), as described in detail later in this report, and input into the VMT Calculator (without consideration of any adjustments to account for trip-reducing factors such as internal interaction, pedestrian patronage, pass-by traffic activity, etc., as noted earlier). Assumptions regarding the "trip purpose" inputs for these "custom" land uses (the "production" and "attraction" trips discussed previously), were based on information provided in Appendix E of the "*VMT Calculator Documentation*", with the characteristics of the trips associated with the existing Staples store assumed to be reasonably represented by the "General Retail" category, while the trip purpose data from the "High-Turnover Sit-Down Restaurant" category was used for the project's proposed café use. Finally, the number of employees associated with both the existing Staples store and proposed café use were based on the typical employee density data contained in the 4<sup>th</sup> Edition of the ITE's *Parking Generation* manual. Using these assumptions, the "baseline" daily trips and VMT estimates for both the proposed project and existing site uses were calculated (using the VMT Calculator), and are provided in Appendix D of this report.

As shown in the VMT Calculator "screening" evaluations, the proposed project itself is estimated to generate a total of 2,096 vehicle trips per day and 13,001 total daily VMT (not including the potential traffic and daily VMT associated with a total of about 800 square feet of entitled but currently vacant retail floor area located within the 5401 Wilshire Boulevard building), while the existing on-site developments produce a total of 1,766 daily vehicle trips and 11,550 daily VMT, resulting in net project-related increases of about 330 vehicle trips per day and 1,451 daily VMT. Therefore, based on the criteria established by the City pursuant to the requirements of SB 743, the VMT "screening" procedures show that the proposed project will generate a sufficient amount of both net new daily vehicular traffic and VMT to require a detailed transportation assessment. The analysis methodologies and results of that assessment are described in the following pages.

## Proposed Project VMT Impact Evaluations

As defined in Threshold T-2.1 of the TAG, a significant project-related VMT impact is deemed to occur if the subject project generates a "household per capita VMT" (for residential components) or "per employee VMT" (for any commercial uses) exceeding a threshold of 15 percent below the average "per capita" or "per employee" VMT of the Area Planning Commission ("APC") area in which the project is located, although the TAG also identifies that the "commercial" portions of a development project that are comprised of less than 50,000 square feet of restaurant, retail, or other similar small-scale "local-serving" uses are assumed to have less-than-significant impacts. The proposed project is located within the "Central" APC, which as identified in Table 2.2-1 of the TAG, exhibits a "Daily Household VMT per Capita" impact "significance" threshold of 6.0, along with a "Daily Work VMT per Employee" impact "significance" threshold of 7.6.

As recommended in the TAG, the VMT Calculator was used to determine if the proposed project would result in any significant VMT impacts. The procedures for calculating and evaluating the project's potential VMT impacts are similar to and based upon the same land use information as

the preceding Threshold T-2.1 screening evaluations, but are expanded to consider the effects of any applicable trip and/or VMT-reducing measures contained in the "TDM Strategies" toolbox of the VMT Calculator, either as an integral part of the proposed project itself ("project feature") or as mitigation for any significant VMT-related impacts that may be identified by the analyses.

Specifically, as described earlier in this report, due to its inclusion of the required number and type (income level) of "affordable" residential units, the project qualifies for and will incorporate reductions from its otherwise-applicable LAMC "residential" use vehicular parking requirements under the City's Density Bonus Affordable Housing Incentives Program, and is also permitted to reduce its typical "commercial" component vehicular parking requirement through the provision of on-site bicycle parking pursuant to the LAMC. As shown previously in Tables 1(a) and 1(b), these adjustments reduce the project's total vehicular parking requirement from 589 spaces to about 304 spaces. As also described earlier in this report, the proposed project will provide a total of about 478 on-site vehicular parking spaces, which will meet the applicable requirements while still providing trip and VMT-related reduction measures advocated by the City through its plans and policies for implementing and maintaining a sustainable transportation network.

In addition to reduced vehicular parking and providing bicycle parking, the TDM Calculator's "TDM Strategies" toolbox also includes measures to educate and inform travelers about the various transportation options available at the project site itself or within the surrounding vicinity. The proposed project will participate in such programs through the use of "passive" marketing and promotional tools such as information kiosks, posters, website, and/or other similar displays containing route maps and schedules for all public transit and other transportation alternatives serving the project and surrounding area. While no other specific TDM measures are assumed for the purposes of this study, the proposed project will comply with all applicable requirements of the City's TDM Ordinance, which may include additional trip or VMT-reduction measures.

Therefore, in addition to the proposed project's land use information, the amounts of both the required and provided vehicular parking were entered into the VMT Calculator's TDM Strategies "Parking" toolbox ("Reduce Parking Supply" option) as a design feature of the project. Similarly, the provision of public transit and/or alternative transportation information to all project residents and employees per the TDM Strategies "Education and Encouragement" toolbox, along with the inclusion of on-site bicycle parking from the "Bicycle Infrastructure" toolbox, were also identified as "project features" for the purposes of this analysis. The resulting VMT Calculator worksheets (which show the trip and VMT values for the proposed project only) are provided in Appendix E.

As shown in Appendix E, with these measures, while the proposed project is expected to result in a total daily VMT of 11,234, it would also exhibit a per capita household VMT of 4.0, which is far less than the applicable "Central" APC household per capita VMT impact threshold of 6.0. Further, the project's proposed approximately 12,821 square foot "commercial" component will contain less than 50,000 square feet of small-scale "local-serving" (retail, restaurant, cafe) uses, and as such, its effects on "per employee work VMT" are considered to be less than significant. Therefore, the proposed project's potential increases to "per capita" or "per employee" VMT levels would be less than significant, and no mitigation measures in this regard are warranted.

It is also of note that a "supplemental" VMT calculation was also prepared, which evaluated the potential VMT impacts of the proposed project prior to the inclusion of the various VMT Calculator "TDM Strategies" identified in the preceding discussions (reduced vehicular parking, provision of required on-site bicycle parking, and identification of public transit options for project residents, employees, and visitors). These additional VMT analyses, which are also provided in Appendix E, show that the project would not result in significant VMT impacts even without these measures.

## Proposed Project Cumulative VMT Impact Evaluation

Although the proposed project is not expected to result in significant VMT impacts, the TAG also requires an evaluation of the project's potential contributions toward cumulative VMT impacts. However, while it is acknowledged that the proposed project could result in increased daily VMT (per the project-specific VMT impact analysis), as identified in the TAG, development projects that do not exhibit significant VMT impacts based on "per capita" or "per employee" thresholds are considered to align with the long term VMT and greenhouse gas reduction goals of both the City and regional Southern California Association of Governments ("SCAG") transportation plans. Therefore, since the proposed project itself does not result in VMT impacts, it is also deemed to have a less-than-significant cumulative VMT impact, and no further analyses are necessary.

# Substantially Inducing Additional Automobile Travel (Threshold T-2.2)

This threshold evaluates whether a proposed "transportation project", including projects intended to increase roadway capacities, such as the addition of new traffic lanes to existing roadways, or the construction of new roadways, would result in significant or undesirable increases in VMT. However, the proposed project does not result in any changes in roadway capacity or operations (the required three-foot dedication along the project's Cochran Avenue frontage does not include roadway widening), and as such, this threshold is not applicable and no evaluation is necessary.

# Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use (Threshold T-3)

This final CEQA impact evaluation criterion is used to determine if a new development project would cause detrimental effects to vehicular, bicycle, pedestrian, or public transit activity due to the design, location, and/or operations of its vehicular access points (generally, its driveways). The TAG identifies two screening criteria related to this evaluation:

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

The project site currently exhibits a total of four driveways, with two driveways each along both Cochran Avenue and Cloverdale Avenue. The proposed project itself will also provide a total of four site access driveways, including its primary "commercial" driveway on Cochran Avenue and primary "residential" driveway on Cloverdale Avenue, plus an entry-only driveway for the on-site passenger drop-off/pick-up area and loading facilities along Cochran Avenue, immediately south of the commercial driveway, as well as an exit-only driveway for the passenger/loading area on Cloverdale Avenue, just south of the residential driveway. As a result, the total number of site driveways will remain unchanged. Additionally, the first screening criterion is related only to the construction of new driveways along "Avenue" or "Boulevard" roadways, and therefore, is not applicable to the proposed project, which as noted earlier, provides all of its access driveways along either Cochran Avenue, a "Collector Street", or Cloverdale Avenue, a "Local Street".

Similarly, the second screening criteria related to this CEQA impact threshold is also applicable only to a project's modifications to roadways exhibiting "Avenue" or "Boulevard" classifications. While the proposed project will be required to provide a three-foot right-of-way dedication along Cochran Avenue in order to meet the Mobility Plan 2035 design specifications, as noted earlier, this facility is designated as a "Collector Street", and is not subject to this evaluation criterion.

Therefore, the proposed project is consistent with all applicable plans, programs, and policies related to the City's transportation network. Further, the project will not result in any significant VMT-related transportation impacts, or significantly impact any pedestrian or bicycle facilities, or public transit access or service in the study area. Since the proposed project does not exhibit any significant impacts, no mitigation measures or further CEQA-related analyses are required.

## NON-CEQA TRANSPORTATION IMPACT ANALYSES

Although the proposed project would not result in any significant VMT impacts, other elements of its design and/or operations are also subject to review by LADOT, including evaluations of its potential effects on pedestrian, bicycle, and public transit accessibility and safety, as well as to the operations of site-adjacent or proximate intersections and local-access (residential) streets. However, while these additional analyses are required in order to evaluate all potential effects of the proposed project on the area transportation network, they are not subject to CEQA review. The non-CEQA transportation assessments and results are discussed in the following pages.

## Proposed Project Access, Safety, and Circulation Evaluations

The preceding sections of this report identified the potential VMT and daily trip generation levels for the proposed project, in order to identify and evaluate the project's CEQA-related impacts. However, those trip-related calculations were performed using the City's VMT Calculator tool, which does not provide the level of detail necessary to analyze the project's incremental and overall effects on the operations of nearby site-serving intersections and local-serving streets. Specifically, pursuant to the TAG, the evaluation of the proposed project's potential effects on these facilities is based primarily on their "peak hour" conditions, which typically occur during the weekday morning and afternoon/evening commute traffic periods, although the project's effects on local/residential streets are analyzed using daily (24-hour) traffic volumes and conditions.

Therefore, for the purposes of the non-CEQA project access, safety, and circulation evaluations, additional calculations were necessary to identify the AM and PM peak hour traffic volumes associated with the proposed project. Additionally, since the effects of the project's traffic on the study area intersections and streets are highly dependent upon the specific movement(s) of that traffic through or along these facilities, further evaluations were performed in order to identify both the general travel patterns and specific travel routes of the project traffic, so that it could be accurately "assigned" to the intersections and streets providing access to the project driveways.

# **Project Traffic Generation Calculations**

The typical traffic-generating characteristics associated with a variety of common land uses, including residential and commercial uses similar to those included in the proposed project or currently occupying the project site, have been extensively surveyed and documented in studies conducted by or under the auspices of the ITE, with the most current information provided in the

10<sup>th</sup> Edition of the ITE's *Trip Generation* manual<sup>1</sup> (although as discussed earlier in this report, the trip generation data used in the VMT Calculator is from the earlier 9<sup>th</sup> Edition of the manual). The data contained in this publication are nationally recognized, and are typically accepted as the basis for trip estimation purposes for traffic studies conducted within the City of Los Angeles and other jurisdictions throughout Southern California. However, the ITE trip generation rates for residential (apartment) uses are developed primarily based on data obtained from typical "market-rate" residential units; the ITE manual does not include any data specifically applicable to "affordable" or "low income" residential units such as those contained in the proposed project. It is generally acknowledged that low-income residential units exhibit a lower "per unit" trip rate than typical market-rate units, primarily due to comparatively lower per capita vehicle ownership, although a higher reliance on public transit or other non-vehicular travel modes is also a factor.

In recognition of these conditions, the LADOT TAG includes recommended trip generation data for several types of "affordable" residential housing, which are required for use by LADOT in lieu of the standard ITE residential information, when applicable. For the purposes of this study, the "Family" category of "affordable housing type" identified in Table 3.3-2 of the TAG was selected as representative of the project's proposed "affordable" residential units. Specifically, the rates for "affordable" units within a Transit Priority Area ("TPA"), defined in the City's Zoning Code as one-half mile from either a major transit stop, such as the future Metro Purple ("D") Line station to be located about 600 feet east of the project at the northwest corner of Wilshire Boulevard and La Brea Avenue, or the intersection of two or more major bus lines (with service intervals of 15 minutes or less), such as Metro Lines 212/312 and Metro RapidBus Line 720, which intersect at Wilshire Boulevard and La Brea Avenue, were considered to be appropriate for this analysis.

Further, a review of the ITE *Trip Generation* data indicated a lack of detailed information related to "big box" retail facilities such as the existing on-site Staples store; the current ITE manual does provide trip generation rates for "Office Supply Superstore (Land Use 867)" uses, but only for the PM peak hour conditions, which are, in turn, based on surveys of only five locations. This information is not sufficient to estimate the amount of traffic related to the operations of the existing Staples store, and therefore, the trip generation for this use was identified via a series of traffic counts conducted at each of the three existing Staples store driveways (two along Cochran Avenue, one along Cloverdale Avenue) over the course of three typical weekdays. These counts included both automated "tube" counters, which were utilized to determine the total amount of Staples traffic entering and exiting the site driveways throughout the day, and

<sup>&</sup>lt;sup>1</sup> *Trip Generation*, 10<sup>h</sup> Edition, Institute of Transportation Engineers, Washington, D.C., 2017.

manual observations conducted during the typical morning and evening commute traffic periods. These empirical count data, which are provided in Appendix F of this report, were then used to develop the estimates of the "daily" (24-hour) and AM and PM peak hour trip generation levels associated with the operations of the existing on-site Staples store, which, as described earlier, will be removed (along with its related traffic) in order to construct the proposed project.

The ITE trip generation rates and other data used in this study to estimate the amount of traffic generated by both the proposed project's residential, retail, restaurant, and café components, and by the existing on-site retail and office uses to be removed to develop the proposed project, are shown in Table F-1(a) in Appendix F. As identified in this table, the trip calculations for both the proposed project's "general retail" component and the existing on-site "retail" uses (for the 5401 Wilshire Boulevard building) were based on ITE "Shopping Center" (Land Use 820) data, pursuant to LADOT's current trip generation estimation policies, while as described previously, the trip generation characteristics related to the existing Staples store (5407 Wilshire Boulevard) were identified via empirical traffic data collected at that facility's driveways.

It is also of note that the ITE trip generation rates identified in Table F-1(a) are typically derived based on the number of vehicles entering and exiting the driveways (and/or other access points) of the subject land uses, and as such, do not generally account for a variety of factors that can influence the amount of "net" traffic generated by an individual land use (or a multi-use project). For typical mixed-use residential/commercial developments such as the proposed project, the most relevant of these factors involve the effects of "internal interaction"/"multi-purpose trips", "pass-by" traffic activity, and the use of public transportation by project residents, employees, customers, and/or visitors on the estimates of the actual amount of "net" project-related traffic that could be added to the study area roadways. Each of these key trip adjustment factors is described in more detail in the following pages, along with identification of its anticipated effects on both the proposed project's individual component and overall trip generation levels.

"Internal interaction" generally reflects the use of on-site services and amenities by residents of a mixed-use development. As such, it is anticipated that some residents of the proposed project will patronize the convenient ground floor retail and restaurant facilities, thereby reducing the overall number of vehicles traveling to and from the site. The internal interaction adjustment also includes consideration of "multi-purpose" trips, where customers of one commercial use patronize other on-site facilities during a single trip, further reducing the total amount of traffic generated by a mixed-use development compared to that of the individual "stand alone" uses, as is generally reflected by the ITE trip generation rates. Therefore, in order to account for the anticipated effects of both "internal interaction" between the project's residents and its on-site commercial components, and of "multi-purpose trips" between the commercial uses themselves, it was assumed that the project's proposed retail, restaurant, and café uses would each exhibit a total reduction of approximately five percent (5%) from the "baseline" trip generation estimates derived using the applicable ITE trip generation rates shown in Table F-1(a).

Additionally, the project's proposed commercial components will provide local-serving amenities and services within comfortable walking distance of the surrounding residential neighborhoods. The ability of local (non-project) residents to walk to these nearby commercial establishments also reduces the amount of vehicular traffic not only to and from the project site itself, but throughout the surrounding area, as these patrons would not need to drive to other similar but more distant facilities. As a result, for the purposes of this study, it was further assumed that both the project's proposed restaurant and café components would experience a trip reduction of about five percent (5%), in addition to the "internal interaction"/"multi-purpose trip" reductions identified earlier, due to "walk-in" patronage from residents of the surrounding neighborhoods. Note that no "walk-in" patronage was assumed for either the proposed or existing "retail" uses.

The second adjustment acknowledges the effects of "pass-by" traffic activity on the number of new trips generated by the project's proposed commercial uses. The concept of pass-by traffic involves the "capture" of an existing trip, initially unrelated to the project itself, that passes by the project site. These existing trips are already on the area roadway network for other purposes, such as a trip to or from work, or perhaps to or from other shopping destinations. As these trips pass the project site, the facilities or services provided by the project (or other factors) induce a stop at the site. Such activity is considered to be an interim stop along a trip that existed prior to (or independent of) the development of a subject project, and therefore, pass-by trips, which may be planned or unplanned, are not considered to be newly generated project-related traffic.

LADOT has developed recommended pass-by trip reduction factors (Attachment H of the TAG) for a variety of land uses. These recommendations indicate that "restaurant" and "café" uses similar to those proposed typically exhibit a pass-by trip factor of 20 percent, while "retail" uses experience a pass-by trip factor of 10 percent. Pass-by trip adjustments are not appropriate for residential uses, which exhibit primarily "origin" or "destination" trips with little pass-by activity. However, pursuant to LADOT's current traffic impact analysis policies, pass-by trip adjustments are not applicable to the evaluation of potential project-related impacts at intersections that are adjacent to or closest to the project along a travel route providing access to the site driveways. As described previously in this report, the study area for the following non-CEQA analyses

includes only those streets and intersections located within one-quarter mile of the project site. Therefore, for the purposes of this study, all potential study locations (streets and intersections) were conservatively assumed to be "adjacent" to or directly providing access to the project site, and as such, no pass-by trip reductions were assumed for any of the site-related uses, including both the proposed project's commercial components and the existing retail and office uses.

Finally, the use of public transportation by project residents to travel to and from the project site is also expected to reduce the number of new trips generated by the proposed development. As discussed earlier, there are a number of existing public transit services that provide stops at or within convenient walking distance of the project site, and it is reasonable to anticipate that some of the proposed project's residents will use public transportation as a regular travel mode, although pursuant to the TAG, transit-related trip reductions are not considered to be applicable to "affordable" residential units, as the trip generation rates for such uses specified by LADOT and shown in Table F-1(a) already account for public transit usage by residents of these units.

LADOT also identifies that developments located within one-quarter mile of a transit station or RapidBus stop can qualify for up to a 15 percent (15%) trip generation adjustment (reduction), provided that the associated transit services exhibit minimum headways of 15 minutes during each of the peak commute traffic periods. As discussed earlier in this report, the project site is currently served by several bus lines, including Metro Lines 212/312 and RapidBus Line 720, both of which meet the minimum headway criteria, and as such, this transit-related trip reduction is considered to be applicable to the proposed project. Additionally, as also noted previously, construction is currently underway on the extension of the Metro Purple ("D") Line (subway) from its existing western terminus near Wilshire Boulevard and Western Avenue westward into the Westwood community of the City, near the Veterans Administration ("VA") Hospital campus.

The first phase of construction, extending the Purple ("D") Line throughout the study area to near the intersection of Wilshire Boulevard and La Cienega Boulevard, is scheduled to begin operations in 2023 (four years prior to the expected completion of the proposed project itself), and will include the station at the northwest corner of Wilshire Boulevard and La Brea Avenue. In order to account for the new public transit option provided by the Purple ("D") Line extension, which will allow direct service between the project site and downtown Los Angeles on the east, and into the eastern portions of the City of Beverly Hills on the west, LADOT has determined that the proposed project's residential component (market-rate units only) would experience an additional five percent (5%) increase in transit use compared to the current bus-only conditions, resulting in a total transit-related trip reduction of 20 percent for this component of the project.

Note that, while it is also anticipated that some employees and/or patrons of the project's retail and restaurant/café components, as well as those of the current on-site commercial businesses, will or do utilize the transit services in the area, for the purposes of this study, no significant use of public transit was assumed for either the existing or proposed commercial uses.

In addition to these factors, which are expected to reduce the amount of traffic generated by the proposed project, it is likely that some project residents, as well as employees and/or customers of its proposed commercial (retail, restaurant, café) components, will utilize ride-hailing services (such as Uber, Lyft, taxis, etc.) as a regular mode of transportation to and from the project site. Such activity is generally considered to be intrinsically included in the ITE trip generation rates shown in Table F-1(a), and as a result, does not affect the overall trip generation for either the project's residential or commercial components. However, as described earlier in this report, the project will include an on-site passenger drop-off/pick-up area for the "ride service" vehicles, which will be accessed via a right-turn only, entry-only driveway from Cochran Avenue, and a right-turn only, exit-only driveway to Cloverdale Avenue (both of which are separate from the project's primary driveways). Since these "ride service" vehicle drop-off/pick-up area driveways exhibit restrictions that do not affect the project's main residential and commercial driveways, the travel patterns for the "ride service" vehicles will also be somewhat different than for the remaining project-related traffic (using the site's primary residential and commercial driveways).

Therefore, in order to assign the proposed project's trips to the appropriate driveways and area streets and intersections, the project's residential and commercial component "ride service" trips were identified separately from those using the "primary" residential and commercial driveways. For this study, it was assumed that 10 percent (10%) of the project's residential component trips (market-rate and "affordable" units) and five percent (5%) of its commercial component trips would occur via "ride service" vehicles. Note that five percent (5%) of the traffic generated by the existing on-site Staples store and other retail/commercial development was also assumed to be "ride service" trips, although since such "ride service" vehicles utilize the same driveways as the remainder of the current site-related trips, they were not specifically identified for this study.

Based on the trip generation rates identified in Table F-1(a), and incorporating the effects of the "internal interaction"/"walk-in" patronage and transit usage trip adjustment factors described in the preceding pages, the number of trips expected to be generated by both the proposed project and existing on-site uses were calculated, and the results are summarized in Table 2. Details of the trip generation calculations are provided in Table F-1(b) in Appendix F of this document.

Table 2
Summary of Proposed Project and Existing On-Site Uses Trip Generation Estimates

			AM Peak Hour			PM Peak Hour			
Size/Use		Daily	In	Out	Total	In	Out	Total	
Proposed Proje	ect								
Residential C	component								
310 -unit	"Market-Rate" Units - "Primary" Trips	994	10	51	61	46	26	72	
	"Ride Service" Trips	110	8	8	16	9	9	18	
38 -unit	"Affordable" Units - "Primary" Trips	142	5	10	15	6	5	11	
	"Ride Service" Trips	16	2	2	4	1	1	2	
Subtotal Residential Component - "Primary" Trips		1,136	15	61	76	52	31	83	
Subtotal Residential Component - "Ride Service" Trips		126	10	10	20	10	10	20	
Total Proposed Residential Trips		1,262	25	71	96	62	41	103	
Commercial (	Components								
7,378 sq. ft.	Retail - "Primary" Trips	252	4	3	7	12	13	25	
	"Ride Service" Trips	13	0	0	0	1	1	2	
4,443 sq. ft.	Restaurants (Total)	427	20	16	36	23	12	35	
	"Ride Service" Trips	22	2	2	4	2	2	4	
1,000 sq. ft.	Café	270	1	1	2	5	5	10	
	"Ride Service" Trips	14	0	0	0	1	1	2	
Subtotal Commercial Component - "Primary" Trips		949	25	20	45	40	30	70	
Subtotal Commercial Component - "Ride Service" Trips		49	2	2	4	4	4	8	
Total Proposed Commercial Trips		998	27	22	49	44	34	78	
Total Proposed Project Trips		2,260	52	93	145	106	75	181	
Existing Site Us	ses (Removed)								
22,162 sq. ft.	Staples	1,973	56	48	104	86	82	168	
9,845 sq. ft.	Retail (including "Wilshire Beauty Supply")	372	6	3	9	18	20	38	
5,738 sq. ft.	Office	56	6	1	7	1	6	7	
800 sq. ft. Vacant		n/a		n/a			n/a -	- n/a	
Total Existing Site Use Trips Removed		2,401	68	52	120	105	108	213	
Total Net New Site-Related Trips		 (141)	(16)	41	25	1	(33)	(32)	

As shown in Table 2, once it is completed and occupied, the proposed project itself is expected to generate a total of about 2,260 trips per day, including 145 trips (52 inbound, 93 outbound) during the AM peak hour and 181 trips (106 inbound, 75 outbound) during the PM peak hour,

after adjusting for the effects of "internal interaction" and public transit usage (and including the "ride service" vehicle trips discussed earlier). Of these trip totals, about 1,262 trips per day are associated with the project's residential units, with the remaining approximately 998 daily trips generated by its commercial components. Similarly, during the AM peak hour, the project's residential component is anticipated to result in about 96 trips (25 inbound, 71 outbound), with its commercial component expected to produce about 49 trips (27 inbound, 22 outbound) during this period. During the PM peak hour, about 103 residential trips (62 inbound, 41 outbound) and about 78 commercial component trips (44 inbound, 34 outbound) are anticipated.

However, the removal of the existing on-site development to construct the proposed project will also result in the removal of its associated trips from the "existing" study area traffic volumes, offsetting some of the traffic generated by the new development. As also identified in Table 2, the existing on-site uses currently generate a combined total of approximately 2,401 daily trips, including a total of about 120 trips (68 inbound, 52 outbound) during the AM peak hour, and a total of about 213 trips (105 inbound, 108 outbound) during the PM peak hour.

Therefore, after accounting for the removal of the existing site-related trips, the proposed project is expected to result in a net *reduction* in site-related traffic of approximately 141 trips per day, including a net increase of about 25 total trips (reduction of 16 inbound, increase of 41 outbound) during the AM peak hour, and a net *reduction* of about 32 total trips (increase of one inbound, decrease of 33 outbound) during the PM peak hour. Of these net trips, the proposed project's residential component will account for an increase of approximately 1,262 trips per day, while its commercial uses will result in a net reduction in the number of site-related "commercial" trips of about 1,403 daily trips. During the AM peak hour, the proposed project is expected to generate about 96 net new residential trips (25 inbound, 71 outbound), but will result in a net reduction of approximately 71 site-related commercial trips (reductions of 41 inbound and 30 outbound trips), while during the PM peak hour, the project would produce about 103 net new residential trips (62 inbound, 41 outbound), but will exhibit a net reduction in site-related "commercial" traffic of approximately 135 trips (reductions of 61 inbound and 74 outbound trips).

## Project Geographic Trip Distribution

Next, the general geographic distributions for the various site-related trips, including for both the proposed project's residential and commercial components, and the existing shopping center, were identified, based primarily on a review of the existing traffic volumes and travel patterns in the general vicinity of the project site, although local and regional demographic information was

also researched in order to provide data on the general locations of likely employment centers, shopping and/or entertainment venues, and other services that could be anticipated to be used by residents of the proposed project, as well as for the relative distribution of the population from which potential employees and/or patrons of the project's commercial uses would be drawn. Additionally, differences in the trip-making characteristics (origin/destination locations, etc.) of typical residential and commercial uses were also considered, resulting in slight variations in the general geographic travel patterns between these two types of land uses.

Based on these data and assumptions the general geographic trip distributions throughout the local area and the surrounding region for both the site-related residential and commercial uses were identified, and are summarized in Table 3. For the purposes of this analysis, it was further assumed that the general geographic trip distribution percentages shown in Table 3 reflect the travel patterns for the subject uses during both the AM and PM peak commute hours.

Direction	Residential Components	Commercial Components *
North	20%	25%
South	15%	25%
East	35%	25%
West	30%	25%
Totals	100%	100%

 Table 3

 Project-Related General Geographic Trip Distribution Percentages

\* Assumed for both the proposed and existing uses.

# Project Traffic Assignment

Based on the general geographic distributions shown in Table 3, the approximate percentages of the traffic associated with both the individual residential and commercial components of the proposed project itself and the existing on-site commercial development were assigned to the various roadways serving the project site and the surrounding vicinity. This process considered a number of factors that could influence the potential travel routes of the site-related trips, including turn restrictions at intersections along the routes, one-way or limited access streets, "connectivity" between surface streets and regional transportation facilities (freeways), and the overall "completeness" of the street system through and surrounding the study area (to account

for any discontinuities in the travel routes). Additionally, as described earlier, the differences in the trip-making characteristics between typical "residential" and "commercial" uses resulted in slightly different trip distributions for these land uses, although for the purposes of this study, both the proposed and existing site-related commercial uses were assumed to exhibit the same general geographic travel patterns. The trip distribution percentages for the roadways serving the project vicinity are shown for the proposed and existing on-site commercial uses are identified in Figure 6(b). As described earlier, these trip distributions reflect the assumed travel routes for each of the subject uses during both the AM and PM peak commute traffic hours.

The general geographic project-component traffic assignments identified in Table 3 and shown in Figures 6(a) and 6(b) were further refined to identify the specific movement (left-turn, through, right-turn) of the project-related traffic (including trips from the existing on-site uses) within the project vicinity as it travels to and from the project site. In addition to the area-wide factors that influence the project-related general geographic travel patterns, this step also considered the effects of "localized" factors such as the locations and operations of the site-serving driveways. The "turning-movement" trip assignment percentages at key intersections in the project vicinity were developed individually for the proposed project's residential and commercial components, as well as for the existing Staples store and other on-site commercial uses, and the resulting "intersection level" trip assignment percentages are provided in Appendix G.

As discussed previously, the proposed project's residential and commercial components exhibit different general geographic trip distributions, and further, each of these components will access the project's on-site parking facilities via different driveways (the "residential" driveway is located along Cloverdale Avenue, while the "commercial" driveway is provided along Cochran Avenue). Additionally, as also noted earlier, the project includes a separate on-site drop-off/pick-up area for project-related (residential and commercial) "ride service" vehicles, accessed exclusively by a right-turn only entry driveway along Cochran Avenue and a right-turn only exit driveway along Cloverdale Avenue, and therefore, due to these access restrictions, the "ride service" trips for the project's residential and commercial components will have slightly different travel patterns than the remainder of their associated component trips, and were also assigned separately. The assignment percentages for the project's "primary" residential component trips are shown in Figure G-1(a), while the assignment percentages for its residential "ride service" trips are shown in Figure G-1(b). Similarly, the assignment percentages for the project's commercial component "primary" and "ride service" trips are shown in Figures G-2(a) and G-2(b), respectively.



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Further, although the trips associated with the existing on-site commercial uses are assumed to exhibit the same general geographic distributions as the project's commercial component, access at the existing on-site parking lot driveways or to the nearby on-street parking spaces is not restricted, and as such, the travel patterns for the existing site-related commercial use trips is also somewhat different than for the project's commercial component trips. For the purposes of this study, the driveway utilization percentages for the existing Staples store were based on the results of the empirical trip generation counts for that use described earlier and shown in Appendix F of this report, while the trips associated with the remaining on-site commercial uses (5401 Wilshire Boulevard), which were observed to utilize both the on-site parking lot and the site-adjacent on-street metered parking spaces along Cloverdale Avenue, were assumed to use the existing on-site parking lot only, with their assignments to the individual site driveways based on the proximity of the driveways to the (pedestrian) entrances to the subject businesses. The trip assignment percentages for the existing Staples store are shown in Figure G-3(a), with the assignment percentages for the remaining on-site commercial trips shown in Figure G-3(b); no specific "ride service" trip assignments were necessary for either of the existing on-site uses.

The project-related general geographic distributions shown in Figures 6(a) and 6(b), along with the various intersection-level trip assignment percentages identified in Appendix G, provide information about the project traffic's assumed travel patterns for a number of key intersections within the project vicinity. However, the TAG identifies that the study area for the analysis, including evaluations to determine whether the proposed project would be likely to cause or contribute to undesirable vehicular queuing or congestion at signalized intersections within the project vicinity located along roadways designated as Avenues or Boulevards, and/or whether any such queuing would result in the diversion of traffic onto surrounding neighborhood streets, should be more limited. Specifically, the TAG requires that these evaluations should include an assessment of all primary project driveways, intersections at either end of the block containing the project site (or up to 600 feet from a project access driveway, whichever is closer) including unsignalized intersections that are integral to project access, and all signalized intersections where the proposed project could add 100 or more net new AM or PM peak hour trips.

Based on these requirements, a review of the overall project vicinity, along with a review of the proposed project's trip generation estimates summarized previously in Table 2, indicates that the actual "study area" should include the two site-adjacent intersection of Wilshire Boulevard and Cochran Avenue, and Wilshire Boulevard and Cloverdale Avenue. Additionally, while the nearby intersections of 6<sup>th</sup> Street and Cochran Avenue, and 6<sup>th</sup> Street and Cloverdale Avenue

are technically more than 600 feet from the northernmost project driveways (each is located approximately 650 feet from the northern boundary of the project site), both of these locations provide direct access to the project driveways along Cochran Avenue and Cloverdale Avenue, and therefore, for the purposes of this study, were also included in these evaluations. However, the review of the proposed project's trip generation calculations indicates that it would result in a total net increase in site-related traffic of only about 25 trips during the AM peak hour, along with a total net reduction of about 32 trips during the PM peak hour. As a result, the proposed project would not (and could not) add 100 or more net new peak hour trips to any other intersections within the general project vicinity, and the evaluation of additional intersections is not warranted.

The trip assignment percentages at these four selected study intersections (and site driveways) for each of the individual project-related components (including the proposed and existing uses) are identified in Figure 7(a) for the proposed project's residential component, in Figure 7(b) for the proposed commercial components, and in Figure 7(c) for the existing on-site development (the information shown in these graphics is excerpted from and identical to that contained in Figures G-1(a) through G-3(b) in Appendix G). Based on these trip assignment percentages, the next step in the project-related trip assignment process was to identify the number of trips anticipated to travel through each of the study intersections. As described earlier in this report, the project-related traffic additions at each study intersection were identified separately for the proposed residential and commercial components (including separate trip assignments for the "primary" and "ride service" trips for each of these uses), and for the existing commercial uses, due to differences in their travel pattern and/or site access assumptions (driveway locations).

Therefore, the "intersection-level" trip assignment process involved multiplying the appropriate AM and PM peak hour trips for each of the individual project-related components, including the proposed residential component, the proposed commercial (retail, restaurant, and café) uses, and the existing on-site commercial development, by its associated trip assignment percentages (for both the "primary" and "ride service" trips for each component, as applicable). The results of this procedure for each of the individual project components and existing site uses are shown in Appendix H, while the total traffic at each of the study intersections and site access driveways associated with the proposed project itself are shown in Figure 8(a) for the AM peak hour and in Figure 8(b) for the PM peak hour. Similarly, the total AM and PM peak hour intersection and driveway volumes for the existing site uses are shown in Figures 9(a) and 9(b), respectively. Finally, the anticipated net project-related intersection and driveway traffic volumes are shown in Figure 10(a) for the AM peak hour and Figure 10(b) for the PM peak hour conditions.



/29/2020





/29/2020







5411 WILSHIRE (2020 PROJECT) \ PROJVOLS (TOTAL PROPOSED) (FUTURE COND) - AM



5411 WILSHIRE (2020 PROJECT) \ PROJVOLS (TOTAL PROPOSED) (FUTURE COND) - PM



5411 WILSHIRE (2020 PROJECT) \ PROJVOLS (TOTAL EX-COMM) - AM

1/29/2020

56



5411 WILSHIRE (2020 PROJECT) \ PROJVOLS (TOTAL EX-COMM) - PM

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59

#### **Study Area Traffic Volumes**

#### Existing Traffic Volumes

Pursuant to the TAG, the traffic evaluations should include the intersections at the corners of the block on which the project is located. Based on this requirement, two intersections north of the project site, 6th Street and Cochran Avenue, and 6th Street and Cloverdale Avenue, were initially selected for analysis, although they are technically beyond the 600-foot maximum distance from the project site specified in the TAG, since they serve as the northern access to the segments of Cochran Avenue and Cloverdale Avenue exhibiting the proposed project's driveways. However, due to their distances from the project site (approximately 650 feet each), neither intersection is expected to be directly affected by the project's driveway operations. Additionally, as indicated by the net project-related traffic volumes shown in Figures 10(a) and 10(b), the proposed project is anticipated to result in net reductions in the total number of site-related trips travelling through these intersections (compared to the traffic from the existing on-site uses), with net reductions of 13 trips during the AM peak hour and 31 trips during the PM peak hour (total of all directions) at 6<sup>th</sup> Street and Cochran Avenue, as well as net reductions of one (1) trip during the AM peak hour and eight (8) trips during the PM peak hour at 6th Street and Cloverdale Avenue. As a result of these net traffic reductions, neither intersection is expected to experience any detrimental effects due to either new project-related traffic or to the operations of the proposed project's driveways, and therefore, no detailed analyses of either of these locations is considered to be warranted.

The existing traffic volumes at the two remaining study intersections of Wilshire Boulevard and Cochran Avenue, and Wilshire Boulevard and Cloverdale Avenue, were identified from counts conducted in August of 2018. Although LADOT typically requires that all traffic data be as current as possible, due to the COVID-19 pandemic and its effects on traffic volumes and travel patterns, LADOT staff has indicated that the August 2018 traffic counts can be used, without adjustment, to evaluate the existing (year 2021) conditions. These data reflect typical mid-week conditions, during weeks with no holidays or other special events, and with all area schools and businesses generally exhibiting normal activity. The "peak hour" volumes used in this study represent the four consecutive highest-volume 15-minute periods occurring within the larger "peak periods" (7:00 to 10:00 AM, and 3:00 to 7:00 PM), and were identified individually for each intersection to assure that their "worst case" operational conditions were analyzed. The existing (year 2021) AM and PM peak hour traffic volumes at each of the two intersections evaluated in this study (along with the existing traffic at the project site driveways) are shown in Figure 11.



10/27/2021

AM AND PM PEAK HOURS \* DUE TO COVID-19 PANDEMIC, COUNT DATA FROM AUGUST 2018

EXISTING (2021) TRAFFIC VOLUMES

Hirsch/Green Transportation Consulting, Inc.

RSCH

REEN

#### Future (Year 2027) Traffic Volumes

In addition to the "Existing" conditions evaluations, LADOT also requires an evaluation of the effects of the proposed project on the forecast future traffic conditions within the project vicinity, with the future study year reflecting the date when the project is expected to be completed and operational. For the purposes of this study, the project developer has identified that the project is expected to be completed and fully occupied sometime early in the year 2027. Therefore, this study identifies both the project-specific traffic effects on the study area future roadway system, as well as those related to the potential future traffic growth on the study area traffic operations, which may be exacerbated by the development of the proposed project.

Future traffic volumes in the project vicinity, and indeed throughout the region, are anticipated to increase as a result of a number of factors, although two factors contribute most significantly to area traffic growth. The first of these factors is "ambient traffic growth", which occurs on both a local and regional basis for a variety of reasons, including but not limited to increases in area population (not specifically tied to new development), additional vehicles for existing households (as children become driving age, or new multi-vehicle status for current single-vehicle families), economic influences such as new jobs creating new worker trips, and other factors.

The second factor is new traffic resulting from ongoing or continuing development. This factor is generally regarded as more localized than the general ambient growth factor described earlier, and is based on information regarding specific development activity within or proximate to the project area. A survey of such development activity in the general project vicinity indicated that there are a number of other projects that are currently either under construction or are planned for development which will likely contribute to future traffic growth within the study area.

Therefore, since the project is not expected to be built and occupied immediately, its traffic, and consequently, the impacts of that traffic, will occur on a roadway system that is accommodating more traffic than under the "Existing (2021)" conditions identified earlier. As a result, this study was expanded to include an analysis of potential future year 2027 traffic conditions, reflecting the anticipated traffic volumes in the study area at the time the proposed project is completed and fully occupied. The procedures used to estimate the "Future (2027)" traffic volumes at each of the study intersections, as well as throughout the remainder of the study area, including the forecast year 2027 "Without Project" conditions (reflecting the study area conditions prior to the development of the proposed project) against which the project's incremental traffic effects are assessed, are described in detail in the following pages.

# Forecast Future Without Project Traffic Conditions

The methodology used in this study to estimate the potential future traffic volumes at each of the study intersections consisted of several steps. First, as described in a preceding section of this report, the current (year 2021) traffic volumes in the study area were identified by traffic counts. These existing volumes were then used to estimate the future traffic conditions through the application of an "ambient traffic growth factor". This growth factor, compounded annually, was applied to all of the turning movement volumes at each of the study intersections to form the "baseline" traffic volume conditions for the future study year of 2027. Additionally, although the annual growth factor is expected to fully reflect all potential area traffic increases, in order to provide a conservative analysis, traffic generated by other nearby development projects was also included in the future baseline traffic estimates of the future "Without Project" conditions.

## Ambient Traffic Growth

The "ambient traffic growth factor" is used to account for expected future increases in traffic within the study area resulting from ongoing general regional population growth, as well as from potential additional traffic associated with future as-yet unidentified development, or from known projects that are approved and awaiting or are currently under construction but located outside the immediate study area ("related projects", as discussed in the following section of this study).

Based on analyses of the traffic growth trends in the study area, LADOT has determined that an annual traffic growth factor of 1.0 percent is appropriate. In fact, the current (2010) Los Angeles County Congestion Management Program ("CMP") foresees actual future traffic growth within the CMP's "West/Central Los Angeles" Regional Statistical Area ("RSA") 17 encompassing the project site to be between approximately 0.19 and 0.20 percent annually through the year 2030, inclusive of traffic resulting from both general ambient growth and cumulative area development. Therefore, the assumed 1.0 percent annual ambient traffic growth factor, compounded annually, was applied to the "existing" 2021 intersection traffic volumes described earlier to develop the estimates of the future traffic volumes for the forecast year 2027 "baseline" conditions.

## Cumulative Development ("Related Projects")

In addition to the 1.0 percent annual ambient traffic growth rate, listings of specific projects located within the study area (an approximately one-quarter mile radius from the project site) were obtained from LADOT and the City of Los Angeles Planning Department. As noted earlier,
the annual ambient traffic growth factor is expected to fully reflect all area traffic growth within the study period, and as such, the inclusion of traffic generated by specific projects within the study area in addition to the ambient traffic growth may overstate the future traffic volumes. Therefore, so as not to inordinately deteriorate future traffic conditions and to more accurately predict future traffic volumes, related projects generating fewer than 20 net new peak hour trips, or those located outside the one-quarter mile study radius, were assumed to be included within the ambient traffic growth increases, and were not identified as specific traffic generators.

Using these assumptions as guidelines, a review of the LADOT and Planning Department files identified 15 projects in the project vicinity that could potentially add traffic to some or all of the study intersections by the future study year of 2027. The locations of each of these 15 projects are shown in Figure 12, while each project is described in Table I-1 in Appendix I of this report. The estimates of the amount of traffic expected to be generated by each of the related projects were provided by LADOT, including (when available) data obtained from traffic studies prepared for individual developments. The trip generation estimates for each of the 15 related projects specifically included in this study are also identified in Table I-1.

The related projects trips shown in Table I-1 were then assigned to the study area roadways using assumptions and methodologies similar to those utilized for the proposed project's trips. The resulting related projects traffic assignments at the two study intersections are identified for both the AM and PM peak hours in Figure I-1 in Appendix I.

The forecast "Future (2027) Without Project" traffic volumes used in this study were developed by adding the combined effects of the assumed 1.0 percent annual ambient traffic growth factor and the potential trips generated by the related projects to the "Existing (2021)" traffic volumes. The resulting "Future (2027) Without Project" traffic estimates, which reflect the traffic volumes at each of the study intersections prior to the development of the proposed project, are shown in Figure 13 for both the AM and PM peak hour conditions.

# Forecast Future With Project Traffic Conditions

Finally, the total net project-related traffic volumes, shown previously in Figures 10(a) and 10(b), were added to the future (year 2027) "Without Project" AM and PM peak hour study intersection traffic volumes shown in Figure 13 in order to estimate the "Future (2027) With Project" volumes for each of the subject locations. The resulting forecast "Future With Project" traffic volumes at the study intersections are shown in for both the AM and PM peak hour conditions in Figure 14.

5411 WILSHIRE (2020 PROJECT) \ RELPROJ-MAP



**IRSCH GREEN** Hirsch/Green Transportation Consulting, Inc.

0/27/2021

688 S. COCHRAN AVENUE RELATED PROJECTS LOCATION MAP



10/27/2021

5411 WILSHIRE (2020 PROJECT) \ FUT(2024)WO (INTS 1 & 2) - AM-PM



FUTURE (2027) TRAFFIC VOLUMES WITHOUT PROJECT AM AND PM PEAK HOURS

66





4/20/2022

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FIGURE 14

## FUTURE (2027) TRAFFIC VOLUMES WITH PROJECT AM AND PM PEAK HOURS

67

The analyses of both the existing (year 2021) and forecast future (year 2027) operations at each of the study intersections are discussed in detail in the following section. These analyses include an evaluation of the existing (year 2021) traffic conditions shown previously in Figure 11, in order to establish a "baseline" for assessing the effects of future traffic growth (unrelated to the proposed project), including both ambient growth and traffic from related projects) on each of the site-adjacent intersections. Additionally, the forecast future (year 2027) "Without Project" and "With Project" traffic conditions shown in Figures 13 and 14, respectively, were evaluated. The comparison of the forecast future "Without Project" and "With Project" traffic conditions allows for the identification of the proposed project's potential incremental traffic-related effects.

# Analysis of Study Area Traffic Conditions and Project-Related Effects

## Analysis Methodology and Assumptions

The current TAG identifies that the intersection delay and vehicle queuing evaluations utilize the analysis methodologies described in the Highway Capacity Manual ("HCM")<sup>2</sup>. This document, published by the Transportation Research Board ("TRB"), describes the operating characteristics of an intersection based on a number of variables, including traffic volumes, lane geometries and configurations, and the number and type of signal phases (or other intersections controls). The HCM analysis methodology is used to determine both the quantity of traffic that can move through an intersection ("capacity"), and the quality of that traffic flow ("level of service"), which itself is based on vehicle approach delays. Under the HCM analysis methodology, "capacity" is expressed in terms of calculated "flow rate", which represents the maximum number of vehicles in the critical lanes that has a reasonable expectation of passing through an intersection under the prevailing roadway conditions. Critical lanes are defined as those intersection movements or groups of movements exhibiting the highest "per lane" volumes during a given period of time. Intersection capacity is also dependent on the number of traffic signal phases; more phases result in additional "lost" or "startup" time due to driver reaction delays when the signal changes from "red" to "green", thus reducing the efficiency (and associated capacity) of an intersection. The HCM analysis methodologies are applicable to the evaluation of signalized intersections (such as the two study intersections) and unsignalized locations (such as the project driveways).

"Level of Service" ("LOS") describes the quality of traffic flow through the intersection. LOS A through LOS C exhibit good traffic flow characteristics, with little congestion or vehicle delay. LOS D exhibits some intermittent congestion, and reflects the highest traffic volume condition

<sup>&</sup>lt;sup>2</sup> Highway Capacity Manual, 6<sup>th</sup> Edition, Transportation Research Board, Washington, D.C., 2016.

without experiencing a breakdown in intersection operations; this is the level of service for which most metropolitan area street systems are designed, and is considered by most jurisdictions in the Southern California region, including the City of Los Angeles, as the maximum "acceptable" level of operation for urban area intersections. LOS E defines conditions at or near the capacity of an intersection, and is characterized by short-duration stoppages and unstable traffic flows at its upper ranges. LOS F occurs when an intersection experiences traffic demands in excess of its operating capacity, and reflects stop-and-go traffic flows and long-duration vehicle delays.

The LOS definitions are summarized in Table 4, along with the associated vehicle delays for both signalized intersections and unsignalized (STOP sign or uncontrolled) locations. As shown in this table, LOS does not represent a single intersection operating condition, but corresponds to a range of vehicular delay values, which themselves are dependent on the intersection control.

Level of	Average Vehic	cle Delay (sec.)	
Service	Signalized	Unsignalized	Intersection Operation/Traffic Flow Characteristics
Α	<u>&lt;</u> 10.0	<u>&lt;</u> 10.0	No congestion; all vehicles clear in a single cycle.
В	> 10.0 <u>&lt;</u> 20.0	> 10.0 <u>&lt;</u> 15.0	Minimal congestion; all vehicles still clear in a single cycle.
С	> 20.0 <u>&lt;</u> 35.0	> 15.0 <u>&lt;</u> 25.0	No major congestion; most vehicles clear in a single cycle
D	> 35.0 <u>&lt;</u> 55.0	> 25.0 <u>&lt;</u> 35.0	Generally uncongested, but vehicles may wait through more than one cycle; short duration queues may form on critical approaches.
E	> 55.0 <u>&lt;</u> 80.0	> 35.0 <u>&lt;</u> 50.0	Increased congestion on critical approaches; long duration queues form at higher end of range.
F	> 80.0	> 50.0	Over capacity; forced flow with long periods of congestion; substantial queues form.

 Table 4

 Level of Service ("LOS") as a Function of HCM Average Vehicle Delay

Several additional assumptions were also included in the evaluations of the existing (2021) and future (year 2027) traffic conditions at the two signalized intersections. First, a review of the existing study area roadway network shows that it already includes several measures designed to enhance traffic flow and reduce overall travel delays, such as left-turn and/or right-turn lanes at key intersections, and on-street parking prohibitions along primary thoroughfares to provide for additional travel lanes during peak traffic periods. Further, all signalized intersections within the City of Los Angeles, including each of the study intersections, are currently equipped with LADOT's Automated Traffic Surveillance and Control ("ATSAC") traffic signal coordination and

next-generation Adaptive Traffic Control System ("ATCS") protocols. These systems monitor traffic demands throughout a network of interconnected ATSAC/ATCS-equipped intersections, and adjust the operations of individual signals in real time to maximize vehicular throughput and minimize delay along key transportation corridors within the study area and throughout the City. Under the previous LOS-based intersection operations analysis requirements, LADOT identified "post-analysis" adjustments to the "baseline" LOS calculations in order to account for the effects of these traffic signal enhancements. These prior adjustment methodologies are not applicable to the HCM "delay-based" evaluations, although for the purposes of this analysis, the operations of study intersections were "optimized" to reflect the ATSAC/ATCS signal improvements.

Additionally, the City of Los Angeles' Five-Year Capital Improvement Programs ("CIP") list was reviewed to identify any new roadway or intersection improvements that may be proposed for implementation within the project vicinity. That review indicated that no significant roadway or intersection capacity improvements are expected by the assumed year 2027 completion date of the proposed project. Further, while some or all of the related projects identified earlier may be required to implement localized roadway or intersection improvements in order to mitigate their specific traffic impacts, for purposes of this study in presenting a conservative evaluation of the future traffic conditions in the project vicinity, no such related projects "mitigation" improvements were assumed. Finally, as described earlier, the proposed project itself does not include any changes to the configurations or operations of either of the study intersections, and therefore, the analysis of the forecast year 2027 "Without Project" and "With Project" traffic conditions would remain unchanged from those used in the analysis of the "Existing (2021)" traffic conditions.

Using the analysis procedures and assumptions described earlier, the vehicular delay values and corresponding LOS for both the AM and PM peak hour analysis periods were calculated at the two study intersections (Wilshire Boulevard and Cochran Avenue, and Wilshire Boulevard and Cloverdale Avenue) for each of the various traffic conditions described earlier, including the "Existing (2021)", "Future (2027) Without Project", and "Future (2027) With Project" scenarios. The results of these analyses are summarized in Table 5, and discussed in the following pages.

### Existing (Year 2021) Conditions

As identified in Table 5, both of the study intersections currently exhibit "acceptable" conditions during both of the peak hours, with the intersection of Wilshire Boulevard and Cochran Avenue operating at mid to high LOS C during both the AM and PM peak hours, while the intersection of

# Table 5Highway Capacity Manual ("HCM") Delay-Based" Intersection Operations AnalysisExisting (2021) and Future (2027) Peak Hour Conditions

					Future (2027)					
Int.		Peak	Existing (2021)		Without Project		With Project			
No.	Intersection	Hour	Delay *	LOS	Delay *	LOS	Delay*	LOS	Change	
1	Wilshire Boulevard	AM	28.6	С	31.9	С	30.7	С	-1.2	
	and Cochran Avenue	PM	34.3	С	41.8	D	38.5	D	-3.3	
2	Wilshire Boulevard	AM	9.6	А	9.9	А	12.3	В	2.4	
	and Cloverdale Avenue	PM	11.8	В	12.6	В	13.0	В	0.4	

Note:

"\*" Total Intersection approach delay in seconds per vehicle.

Wilshire Boulevard and Cloverdale Avenue operates at high LOS A and low LOS B conditions during the AM and PM peak hours, respectively, primarily due to substantially lower "cross street" (Cloverdale Avenue) traffic demands. However, these results should not be construed to suggest that no delays or congestion occur at these locations or along the key travel corridors in the project vicinity during the peak commute traffic periods, and it is acknowledged that some of the roadways in the study area experience brief (15 to 20 minute) periods of heavy congestion and/or long vehicle delays during these times, resulting in "undesirable" (LOS E or F) conditions. Nonetheless, recent field observations indicated that traffic conditions generally improve prior to and after these short term high-congestion periods, and as such, the calculated levels of service shown in Table 5 accurately represent the overall operations of both of the study intersections over the course of an entire hour (the base time period utilized for these evaluations) during the critical morning and afternoon/evening peak traffic periods. Additionally, as briefly noted earlier in this report, the "peak hour" conditions shown in Table 5 reflect the highest traffic volumes and congestion levels at each study intersection throughout the day. As a result, the operations at both study intersections, as well as at other locations within the study area, typically improve during the "off-peak" periods of the day due to reductions in the overall area traffic demands.

### Forecast Future (Year 2027) Conditions

Future increases in the traffic volumes within the study area, due to both ambient traffic growth throughout the region and the potential traffic generated by the 15 related projects identified in Table I-1 in Appendix I of this report, are expected to slightly deteriorate the traffic conditions at

both of the study intersections by the year 2027, prior to development of the proposed project. As also shown in Table 5, the intersection of Wilshire Boulevard and Cochran Avenue is forecast to remain unchanged from its current LOS C conditions during the AM peak hour, but to decrease slightly to (still-acceptable) mid-range LOS D operations during the PM peak hour. However, the levels of service at the intersection of Wilshire Boulevard and Cloverdale Avenue are expected to be relatively unaffected by future (non-project) traffic increases, and will continue to operate at its current LOS A and LOS B conditions during the AM and PM peak hours, respectively.

It should also be noted that the forecast (year 2027) study intersection operations identified in Table 5 are considered to be "worst case" projections of the future conditions in the study area for a number of reasons. First, it is possible that some of the 15 related projects assumed in this study will not be constructed, or may be built to a lesser density than is currently proposed. Additionally, the trip generation estimates for the related projects do not include "trip linkages" with other existing or new development, which could reduce the traffic increases associated with those projects assumed in this study. Further, as discussed earlier, some of the related projects may be required to implement trip reduction programs and/or operational modifications to the area transportation system that could improve the operations at one or both study intersections compared to the forecast future conditions shown in Table 5, although no such measures were assumed for these analyses. Finally, the use of public transportation, including the extension of the Purple ("D") Line subway through the project vicinity is expected to reduce both the number of trips generated by individual projects and overall traffic volumes in the area, although again, no traffic demand reductions were specifically assumed for the purposes of these evaluations.

The new traffic generated by the proposed project itself could also affect the future operations of the study intersections. As again shown in Table 5, the addition of the project's net new trips is anticipated to result in only nominal incremental changes in the forecast future delay values at the study intersections, and in fact, is expected to result in slight reductions in the overall delay at the intersection of Wilshire Boulevard and Cochran Avenue during both peak hours, due to the net decreases in site-related "commercial" traffic (which, for the proposed project itself, travels primarily on Cochran Avenue). No changes to the forecast future (year 2027) "Without Project" levels of service are anticipated during either peak hour at the intersection of Wilshire Boulevard and Cloverdale Avenue are expected to be reduced slightly, from high LOS A to low LOS B conditions during the AM peak hour, but will remain unchanged from its forecast future ("Without Project") LOS B operations during the PM peak hour.

Further, a review of the left-turn vehicular queue lengths on the Wilshire Boulevard approaches of both study intersections indicates that the forecast traffic demands can be fully accommodated within the existing left-turn pocket lengths (which range from about 60 feet up to about 80 feet), and as a result, no left-turn queuing into the "through" lanes is expected in either direction along Wilshire Boulevard at the subject locations (no dedicated left-turn lanes are currently provided for the northbound or southbound approaches of Cochran Avenue or Cloverdale Avenue).

Additionally, the project will not result in "gridlock" conditions, as the "through" traffic queues on Wilshire Boulevard are not expected to extend from either of the subject intersections into any of the adjacent intersections (minimum westbound queuing capacity of about 235 feet between Cochran Avenue and Cloverdale Avenue, and between Cloverdale Avenue and Detroit Street; minimum eastbound queuing capacity of approximately 220 feet between Cloverdale Avenue and Cochran Avenue, and approximately 260 feet from Cochran Avenue to Dunsmuir Avenue), and therefore, would neither inhibit the progression of traffic on Wilshire Boulevard, nor impede the flow of north/south traffic across Wilshire Boulevard from any of the study area side streets. Finally, the results of these evaluations indicate that, in general, no long-term blockages of the proposed project's primary or porte cochere driveways due to vehicular queuing northward from Wilshire Boulevard along either Cochran Avenue or Cloverdale Avenue are expected.

Therefore, based on the evaluation of the existing and forecast future conditions and operations of the intersections located immediately adjacent to the project site and/or providing access to its driveways, the proposed project is not expected to result in detrimental or undesirable effects at any of these locations. As a result, no project-related physical or operational improvements to address any transportation-related deficiencies at any of these intersections is warranted.

### **Proposed Project Driveway Operations Evaluations**

No issues associated with either the project's driveway locations or overall site access scheme are anticipated, and as discussed in the preceding section of this report, the proposed project's net traffic will not result in undesirable effects to the site-adjacent or site-serving intersections within the immediate project vicinity. However, as required by the TAG, the operations of the driveways themselves were further examined to assure that adequate entry and exit capacities are provided to accommodate the maximum vehicular demands of the project, which typically occur during the weekday AM and PM peak hours. The peak project driveway traffic volumes, which were identified and described as part of the preceding project trip generation evaluations, are repeated for clarity in Figure 15 for both the AM and PM peak hour conditions.



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IRSCH REEN FIGURE 15



Hirsch/Green Transportation Consulting, Inc.

688 S. COCHRAN AVENUE TOTAL PROPOSED PROJECT DRIVEWAY VOLUMES As detailed earlier in this report, the proposed project in its entirety is anticipated to exhibit a total vehicular driveway demand of approximately 2,260 trips per day, including peak demands of about 145 trips (52 inbound, 93 outbound) and about 181 trips (106 inbound, 75 outbound) during the AM and PM peak hours, respectively. Specifically, the project's "residential" driveway on Cloverdale Avenue is expected to accommodate a total of approximately 1,136 trips per day, including a total of about 76 trips (15 inbound, 61 outbound) during the AM peak hour, and a total of about 83 trips (52 inbound, 31 outbound) during the PM peak hour, while the proposed "commercial" driveway along Cochran Avenue is anticipated to exhibit a total vehicular demand of approximately 949 daily trips, including a total of about 45 trips (25 inbound) during the AM peak hour, along with a total of about 70 trips (44 inbound, 34 outbound) during the PM peak hour. Finally, each of the proposed project's porte cochere driveways accessing the on-site "ride service" vehicle passenger drop-off/pick-up area and loading docks (specifically the entry-only driveway from Cochran Avenue and exit-only driveway to Cloverdale Avenue), are estimated to experience total vehicular demands of about 12 trips during the AM peak hour.

The project's ground floor plans, shown earlier in Figure 3(a), identify that access control gates will be installed for both entering and exiting traffic at both the "primary" residential driveway on Cloverdale Avenue and the "primary" commercial driveway on Cochran Avenue, to control and monitor access into and out of the project site, and to provide security for the site's residents, visitors, employees, and patrons. Therefore, for the purposes of evaluating the adequacy of the proposed project's driveways to accommodate the anticipated peak vehicular access demands identified earlier, it was assumed that the project's "primary" commercial component driveway will be equipped with a typical automated ticket dispensers/gate arm access control device, while the project's "primary" residential component driveway is expected to exhibit a gate arm or other access/security control device operated via a card key or in-vehicle transponder that will automatically open the gate arms for vehicles so equipped (such as project resident vehicles).

Typical ticket dispenser/gate arm-controlled driveways are generally assumed to accommodate between about 380 and 650 entering vehicles per hour per lane, depending on the configuration of the entry lane(s), while card key or transponder-activated gates exhibit entry capacities of about 400 vehicles per hour per lane. Both the proposed project's "primary" driveways are configured with one entry lane, and therefore, its "primary" commercial driveway is assumed to provide an entry capacity of about 500 vehicles per hour, while its "primary" residential driveway is expected to exhibit an entry capacity of up to about 400 vehicles per hour.

Exiting capacities for driveways equipped with gate arm access controls typically accommodate between about 200 and 400 vehicles per hour, depending on the payment method (variable rate versus flat rate, pay-at-gate versus pre-pay, etc.), while card key or transponder-activated gates exhibit typical exit capacities of about 400 vehicles per hour per lane. However, while the physical operations of the gate arm mechanisms have some bearing on the exit capacities of driveways so equipped, the overall amount of exiting traffic that can actually be accommodated by a driveway during any particular time period is more dependent upon the volume of traffic and/or congestion levels on the street accessed by the driveway, as these factors generally control the number of vehicles that can exit the driveway and enter the traffic flow on that facility. A review of the current conditions along Cloverdale Avenue indicates that traffic volumes and congestion levels are relatively low, and as a result, the project's "primary" residential driveway is expected to exhibit an exit capacity of about 400 vehicles per hour (one exit lane is provided). Conversely, the existing traffic volumes and congestion levels along Cochran Avenue adjacent to the project's "primary" commercial component driveway are somewhat higher (due primarily to the parking garage entry/exit driveways for the adjacent 5455 Wilshire Boulevard building), particularly during the morning and afternoon/evening peak commute traffic periods. As such, the exit capacity for this project driveway (which provides only one exit lane) is likely reduced from its potential maximum, and is estimated to be about 250 vehicles per hour.

Additionally, as noted earlier, the proposed project's residential component vehicular parking will be located in a three-level subterranean garage, equipped with an automated vehicle lift system that will both park arriving vehicles in and retrieve departing vehicles from these parking levels. As shown previously in Figure 3(c), all residential vehicle loading and unloading will occur on the P-1 (first subterranean) level of the garage, which will provide seven vehicle bays accessing three vehicle lift devices that will transport the vehicles throughout the automated parking levels. While the vehicle parking and retrieval system itself will be automated, the lifts will be operated by the vehicle drivers, although attendants may also be available to assist users of the system, and/or to manage the arrivals and departures of project's parking operations consultant, the automated parking system will exhibit a total capacity (combination of both vehicle "parking" and "retrieval" operations) of between 200 and 250 vehicles per hour. As a result, even assuming the minimum total vehicle lift capacity of about 200 vehicles per hour, a review of the project's anticipated peak residential component "primary" driveway traffic volumes identified earlier in

Figure 15 indicates that these demands (maximums of 15 entering and 61 exiting vehicles during the AM peak hour, and 52 entering and 31 exiting vehicles during the PM peak hour) can be fully accommodated by the proposed lift system without substantial vehicular queuing or delays. Therefore, although the estimated total capacity of the vehicle lift system is less than either the typical entry or exit capacities discussed earlier for the project's "primary" residential driveway, adequate vehicle lift and staging capacities will be provided to meet the expected peak demands.

The project's "primary" driveways will also provide sufficient on-site vehicular queuing space to accommodate the anticipated peak inbound vehicle demands without vehicles "overhanging" the adjacent sidewalk or queuing onto and disrupting traffic flows along either Cochran Avenue or Cloverdale Avenue. LADOT recommends that access gate-controlled entry driveways similar to those for the subject project should provide a minimum on-site vehicle "reservoir" distance of 40 feet between the back of the sidewalk and any ticket dispenser/gate arms, or sufficient length to accommodate two typical passenger vehicles. As shown earlier in Figure 3(a), the project's "primary" residential component entry driveway will provide an on-site vehicle reservoir distance of nearly 60 feet, while the "primary" commercial component driveway entry lane will provide the recommended vehicle reservoir distance of 40 feet from the back of sidewalk to the gate arm.

However, although the preceding evaluations indicate that the project's "primary" driveways are expected to provide sufficient entry and exit capacities to accommodate their peak demands, the TAG requires that each driveway be analyzed using the HCM "delay-based" methodologies, in order to assure that no on-street vehicular queuing or other undesirable project-related effects will occur along streets accessed by the driveways, or at nearby intersections. The results of these analyses confirm that both of the "primary" driveways will operate at acceptable levels, with the project's Cochran Avenue "commercial" driveway exhibiting LOS B conditions during both the AM and PM peak hours, while the proposed Cloverdale Avenue "residential" driveway will operate at LOS A during both peak hours. Note that, unlike the earlier HCS analyses of the study intersections, which base the level of service on total intersection vehicle delay, the LOS for "unsignalized" (minor approach STOP-sign controlled) locations such as the project driveways are identified using the driveway (or street) approach movement with the highest delay value. Further, no substantial access-related delays or on-site or on-street vehicular queuing at either of the project's "primary" access driveways is anticipated to occur under typical conditions. Therefore, both of the "primary" project driveways are expected to operate at acceptable levels, without resulting in any long-duration "internal" or on-street vehicular gueuing, or the disruption of pedestrian activity or vehicular traffic flows on either Cochran Avenue or Cloverdale Avenue.

Finally, although no detailed analysis was prepared for the project's porte cochere driveways, which provide access to the on-site "ride service" vehicle passenger drop-off/pick-up area and loading docks, they are also expected to operate at acceptable levels. Specifically, as identified in the project's ground floor layout shown earlier in Figure 3(a), neither of these driveways is proposed to exhibit any type of vehicle access control device, and as a result, based on the typical operating characteristics of one-way, "uncontrolled" driveways, the entry-only driveway on Cochran Avenue and corresponding exit-only driveway on Cloverdale Avenue are each assumed to accommodate up to about 500 vehicles per hour. These entry and exit capacities will easily accommodate the relatively nominal traffic demands identified previously in Figure 15, and therefore, no access-related impacts associated with either of these driveways is expected.

# Local/Residential Street Cut-Through Traffic Evaluations

The TAG also requires that the proposed project's effects on local-serving or residential streets in the project vicinity be analyzed. These analyses are intended to identify both any new traffic along such streets that may be generated by the proposed project itself, and its potential to induce "cut-through" traffic along these roadways (non-local trips that may utilize a "local" street as a result of project-related traffic additions to already congested arterial roadways in the area). Note that it is the City's policy to locate new project driveways along lower-volume side streets, and as such, as discussed in the TAG, the trips travelling to and from project driveways located along local/neighborhood streets are not themselves considered to be "cut-through" traffic.

The proposed project's effects on both Cochran Avenue and Cloverdale Avenue were evaluated in this study, since each provides access to the project driveways, and will be directly affected by its traffic. Note that Cochran Avenue in the study area is designated as a "Collector" street, and as it is not a "local" street, the "cut-through" traffic analyses do not strictly apply. However, north of the project site, Cochran Avenue is developed with single- and multi-family residences, and the addition of new project-related traffic to this street could impact access for its residents. Therefore, for the purposes of this study, the subject segment of Cochran Avenue was assumed to exhibit the characteristics of a local/residential street, and was evaluated as such.

Unlike the preceding intersection and project driveway operational analyses, both of which are based on peak hour traffic volumes, a project's potential effects on local/residential streets are identified by evaluating its incremental daily (24-hour) traffic additions to the subject roadway as a percentage of the resulting "With Project" average daily traffic ("ADT") volumes of the street. Therefore, the net daily project-related traffic volumes expected to utilize each of these streets

was calculated, based on the daily trip generation estimates shown earlier in Table 2 for both the project's proposed residential and commercial components and for the existing site uses, along with the trip assignments for each of these uses, as shown in Appendix G of this report. Note also that the evaluation of the proposed project's potential effects on these two streets is limited to the residentially-developed segments located to the north of the project site, since the southern portions of each of these streets (including the project site itself) are zoned for and developed with commercial uses, and are not subject to the LADOT analysis requirements. Additionally, only the project's "primary" residential and commercial component trips were used for this analysis, since both the residential and commercial "ride service" trips described earlier will both enter and exit the project site within the commercially-zoned segments of the streets, and will not travel through the "residential" portions of either of the subject roadways.

As detailed in Table F-1(b) in Appendix F of this report, the proposed project's residential uses are estimated to generate a total of 1,136 daily "primary" trips (not including "ride service" trips), while its commercial components are estimated to produce a total of 949 daily "primary" trips (again, not including any "ride service" trips). Additionally, as identified previously in Figure 7(a), about 15 percent of both the "inbound" and "outbound" residential component "primary" trips are expected to travel on Cloverdale Avenue north of the project (no project "residential" trips are assigned to Cochran Avenue), while Figure 7(b) shows that about 25 percent of the "inbound" and about 45 percent of the "outbound" commercial component "primary" trips will travel along Cochran Avenue north of the site (no project-related commercial trips use Cloverdale Avenue).

Similarly, the existing on-site commercial uses are estimated to generate a combined total of about 2,401 daily trips, including "ride service" trips, which although not specifically identified for the existing uses, do not exhibit any site access restrictions, such as those associated with the proposed project's residential and commercial component "ride service" trips, and therefore, are assumed to use the segments of both Cochran Avenue and Cloverdale Avenue north of the site. As identified in Figure 7(c), about 25 percent of the "inbound" trips and about 30 percent of the "outbound" trips generated by the existing on-site Staples store travel along Cochran Avenue north of the project site, while about 10 percent of both its "inbound" and "outbound" traffic uses the corresponding segment of Cloverdale Avenue. Additionally, as also indicated in Figure 7(c), about five percent of the "inbound" traffic and about 20 percent of the "outbound" traffic generated by the businesses occupying the 5401 Wilshire Boulevard building arrive and depart along Cochran Avenue north of the project site, while about 25 percent of the about 25 percent of its "inbound" traffic site.

Using these individual project-related and existing on-site component trip generation estimates along with their corresponding trip assignment percentages, the number of daily trips associated with each of the uses, as well as their combined total daily traffic, using Cochran Avenue and/or Cloverdale Avenue was calculated for both the proposed project and the existing on-site uses. Note that, although the VMT Calculator tool (used earlier to determine the proposed project's potential CEQA-related vehicle miles traveled impacts) also calculates the number of both gross and net new daily project-related trips, it does not provide the level of detail needed to conduct the local/residential street analyses. Specifically, the VMT Calculator does not identify the proposed project's individual "residential" or "commercial" component daily trips, and as such, pursuant to the TAG, the daily trips associated with both the proposed and existing site uses were estimated using the appropriate ITE 10<sup>th</sup> Edition *Trip Generation* manual trip generation.

The results of these trip assignment procedures are shown in Figure 16, which indicates that the proposed project itself is anticipated to add a total of about 332 new daily "commercial" trips to Cochran Avenue (north of the project site), and a total of about 170 new daily "residential" trips to Cloverdale Avenue (again, north of the site). However, the demolition (or vacation) of the existing on-site uses in order to construct the project will also result in the associated removal of about 597 trips per day on Cochran Avenue and about 262 trips per day on Cloverdale Avenue. As a result, as also identified in Figure 16, the proposed project would result in a reduction in overall traffic along Cochran Avenue to the north of the site) of about 92 trips per day. Further, based on the earlier evaluations of the project's effects on the site-adjacent study intersections, it is not expected to induce new non-project "cut-through" traffic on either of the subject streets. Therefore, the proposed project is not anticipated to result in any adverse or undesirable effects along either Cochran Avenue or Cloverdale Avenue, and no further analysis is warranted.

### Pedestrian, Bicycle, and Transit Access Assessment

These evaluations are used to determine the proposed project's potential effects on pedestrian, bicycle, and/or public transit facilities in the immediate vicinity of the project site, including but not limited to the removal or degradation of existing sidewalks or crosswalks, bikeways and/or supporting infrastructure (bicycle racks, bikeshare stations, etc.), bus stops, benches, shelters, or other transit-related amenities, or other existing transportation system elements that support the City's sustainable mobility goals. Projects that are anticipated to increase pedestrian traffic (including to and from nearby public transit facilities) are also subject to these assessments.



The project will not result in any negative effects to the sidewalks or crosswalks in the vicinity. The existing 10-foot sidewalk along the site's Cloverdale Avenue frontage will be maintained (although this is two feet less than required by the City's Mobility Plan 2035, Cloverdale Avenue is fully dedicated to the current Local Street design standards, and right-of-way dedications only for the purpose of widening the sidewalk are not required). Conversely, the proposed project will provide a three-foot dedication (as required) along its Cochran Avenue frontage, which will be used to provide a 13-foot sidewalk along this street (no roadway widenings are proposed).

Additionally, while the existing 10-foot sidewalk along the project's Wilshire Boulevard frontage is five feet less than the 15-foot standard width applicable to this facility, as identified previously, no sidewalk-related right-of-way dedications are required (since Wilshire Boulevard is currently dedicated to its required design width), although the project's building face will be set back from the property line to provide an approximately 20-foot pedestrian walkway along this frontage. Further, portions of Wilshire Boulevard in the study area, including adjacent to the project site, are located within a Pedestrian Enhanced District ("PED"). The purpose of this designation is to prioritize the arterial roadways within such districts for pedestrian safety enhancements, and the project's provision of wider sidewalks/pedestrian walkways along both its Wilshire Boulevard and Cochran Avenue frontages is consistent with the PED goals and objectives. Finally, as also described earlier in this report, Wilshire Boulevard is also part of the City's Vision Zero program High Injury Network ("HIN"), which identifies measures to improve pedestrian safety, including prohibitions or restrictions related to the number and location of driveways along HIN facilities. Since the proposed project will not include any driveways along its Wilshire Boulevard frontage, it also complies with the High Injury Network objectives regarding pedestrian safety.

The proposed project is not anticipated to result in undesirable effects to the existing bicycle or public transit facilities within the project vicinity, or preclude the implementation of any bicycle or transit-related City plans, programs, or policies. Specifically, Wilshire Boulevard is a part of the Bicycle Enhanced Network ("BEN") in the City's Mobility Plan 2035, and is programmed for the installation of a Priority Bicycle Lane through the project vicinity. The project will not affect the existing roadway width or other physical or operational characteristics of Wilshire Boulevard along its site frontage, and therefore, will not prevent the installation of any new bicycle lanes. Additionally, it is of note that "westbound" Wilshire Boulevard throughout the project vicinity currently exhibits a half-roadway width of 40 feet, and therefore, is "over-improved" by five feet compared to the applicable Mobility Plan 2035 design standard (35-foot wide half-roadway), which may allow for easier installation of the City's programmed new Priority Bicycle Lane.

Similarly, Cochran Avenue through the area, including adjacent to the project site, is identified as a part of both the Mobility Plan 2035's Neighborhood Enhanced Network ("NEN") and BEN. The NEN identifies a network of primarily local and collector roadways (some arterial streets are also included) that are prioritized to provide a calm and safe environment for walking, bicycling, and circulation of slower-moving transportation modes, as well as segments designated for the closure of gaps in the existing protected bicycle lane system, with Cochran Avenue included as part of the Priority Neighborhood Enhanced Network. The proposed project does not include any modifications to Cochran Avenue, and will not affect the City's ability to implement any of the physical or operational enhancements associated with either the NEN or BEN. Therefore, the project is consistent with these and other programs and policies related to providing and maintaining a sustainable transportation infrastructure for bicyclists and pedestrians.

Lastly, the proposed project will not result in any detrimental effects to the public transit system. Wilshire Boulevard is designated as a "Comprehensive Transit Enhanced Street", as a part of the Transit Enhanced Network ("TEN") of the City's Mobility Plan 2035. Throughout the vicinity of the project, including adjacent to the project site itself, Wilshire Boulevard currently provides a curbside bus-only lane during weekday peak traffic periods (7:00 to 9:00 AM, 4:00 to 7:00 PM), along with a bus stop and shelter located along the project frontage between Cochran Avenue and Cloverdale Avenue. As described earlier in this report, the proposed project will not result in any changes to the existing geometric conditions of Wilshire Boulevard that would preclude or otherwise negatively affect the implementation of any new public transit-related improvements, and further, will retain the existing bus stop/shelter, either at its current location, or at a location to be determined by the City. Neither Cochran Avenue nor Cloverdale Avenue are included in the TEN, and as such, the project will not result in any transit-related effects to those facilities.

Although the proposed project is not expected to affect any of the physical characteristics of the area public transportation system, it is anticipated to result in an increase in transit ridership on both the existing bus lines serving the project site, and the Metro Purple ("D") Line (extension), which is currently under construction and scheduled for completion in 2023, including a station at the northwest corner of Wilshire Boulevard and La Brea Avenue. As described previously in this report, it is anticipated that a total of approximately 20 percent of the proposed project's "market-rate" residential unit trips will use these public transportation facilities rather than travel in single-occupant or other private vehicles, including about 15 percent on the existing bus lines, and about five percent (5%) on the Purple ("D") Line subway system (including the existing line). Note that, as described previously in this report, the trip generation rates utilized to estimate the

vehicular traffic associated with the project's "affordable" housing component are considered to intrinsically include transit-related trip discounts, and as such, potential public transit utilization for this project component was not directly calculated. However, for the purposes of this study in evaluating the proposed project's overall effects on public transit ridership, it was assumed that the "market-rate" unit ridership rates also apply to the project's "affordable" residential units.

Additionally, as discussed earlier in this report, in order to provide a conservative analysis of the potential traffic-related effects of the proposed project, no significant use of public transportation beyond the nominal levels intrinsically included in the ITE trip generation rates shown previously in Table 1 was assumed for either the proposed project's commercial component or for any of the existing on-site uses. However, despite these previous traffic impact-related assumptions, for the purposes of evaluating the project's potential impacts on the public transportation system serving the study area, it was assumed that up to five percent (5%) of the trips generated by both the project's proposed retail and restaurant uses and the existing on-site commercial uses (including trips generated by both employees and customers) would travel to and from the project site via the existing public transportation services operating in the study area.

Based on these assumptions, and utilizing the trip generation values summarized previously in Table 2 of this report and detailed in Table F-1(b) in the appendix, the number of vehicle trips that would instead potentially be converted to public transit trips was estimated for each of the proposed project components, as well as for the existing on-site commercial uses. Note that, for the purposes of this evaluation, the total number of vehicular trips for each site-related use was assumed to include the "ride service" trips, since the users of these services may ultimately decide to instead utilize the convenient public transportation facilities serving the project site. These "vehicle" trips were then converted to "person" trips, in order to estimate the number of people initially assumed in the trip generation calculations shown in Table 2 to be travelling in private vehicles who could instead be anticipated to utilize public transportation. This procedure assumed an average vehicle occupancy ("AVO") of approximately 1.4 persons per vehicle, which is typical for the Southern California region. The results of these calculations are shown in Table 6, which includes the total number of "vehicle" trips (and occupants) expected to utilize the existing bus lines and future Purple ("D") Line, as well as the net changes in both daily and peak hour ridership assumed to occur on each of these facilities due to the proposed project.

As indicated in Table 6, accounting for both the potential new project-related public transit use as well as the removal of the assumed current (bus service only) ridership associated with the existing on-site commercial uses, the proposed project is estimated to result in a net increase in

Table 6
Proposed Project and Existing On-Site Uses Public Transportation Ridership Estimates

		AM Peak Hour			PM Peak Hour		
Size/Use	Daily	In	Out	Total	In	Out	Total
Proposed Project	·						
Residential Component							
Total "Market-Rate" Unit Vehicular Trips	1,104	18	59	77	55	35	90
Trips Using Existing Bus Service (15%) Trips Using Future Purple ("D") Line (5%)	166 55	3 1	9 3	12 4	8 3	5 2	13 5
Total "Affordable" Unit Vehicular Trips	158	7	12	19	7	6	13
Trips Using Existing Bus Service (15%) Trips Using Future Purple ("D") Line (5%)	24 8	1 0	2 1	3 1	1 1	1 0	2 1
Total Proposed Residential Vehicular Trips		25	71	96	62	41	103
Total Trips Using Existing Bus Service (15%) Total Trips Using Future Purple ("D") Line (5%)	190 63	4 1	11 4	15 5	9 4	6 2	15 6
Commercial Components							
Total "Commercial" Component Vehicular Trips	998	27	22	49	44	34	78
Total Commercial Trips Using Public Transit (5%)		1	1	2	2	2	4
Trips Using Existing Bus Service (75% of Total) Trips Using Future Purple ("D") Line (25% of Total)	38 12	1 0	1 0	2 0	2 0	1 1	3 1
Total Proposed Project Vehicular Trips		52	93	145	106	75	181
Total Project Trips Using Existing Bus Service Total Project Trips Using Future Purple ("D") Line	228 75	5 1	12 4	17 5	11 4	7 3	18 7
Existing Site Uses (Removed)							
Total (Combined) Existing Site Uses Vehicular Trips	2,401	68	52	120	105	108	213
Total Existing Uses Trips Using Public Transit (5%)	120	3	3	6	5	6	11
Trips Using Existing Bus Service (100% of Total)	120	3	3	6	5	6	11
Trips Using Future Purple ("D") Line (not applicable)	0	0	0	0	0	0	0
Net (Vehicle) Trips Using Existing Bus Service	108	2	9	11	6	1	7
Net Changes in Bus Ridership (Persons)	151	3	13	16	8	2	10
Net (Vehicle) Trips Using Future Purple ("D") Line		1	4	5	4	3	7
Net Changes in Purple ("D") Line Ridership (Persons)	105	1	6	7	6	4	10
Total Net Changes in Public Transit Ridership (Persons)		4	19	23	14	6	20

Note:

All Vehicle Trip Values Per Table 2.

total daily public transit ridership of about 256 persons, including about 151 net new daily riders on the combined (five) bus lines currently serving the project vicinity, and about 105 daily riders utilizing the Purple ("D") Line. During the AM peak hour, the project is anticipated to result in a net increase in total public transit usage of about 23 persons (four "inbound" to the project site and 19 "outbound" from the site), including a net increase in ridership on the existing bus lines serving the study area of about 16 persons (three inbound, 13 outbound), along with a total of about seven persons (one inbound, six outbound) using the Purple ("D") Line subway system. Similarly, during the PM peak hour, the proposed project is expected to result in a net increase in total public transit ridership of about 20 persons (14 inbound, six outbound), which includes a net increase of about 10 riders (eight inbound, two outbound) on the area-serving bus lines, plus about 10 riders (six inbound, four outbound) on the Purple ("D") Line.

While it is acknowledged that bus utilization within the project vicinity can be heavy, particularly during the peak weekday commute periods, the relatively nominal project-related increases in public transit rider demand identified in Table 6 would likely be divided among the five bus lines described earlier (Metro Lines 20, 212/312, and RapidBus 720, LADOT DASH Fairfax Route, and Antelope Valley Transportation Authority Route 786) that provide service in the study area. These five lines currently provide a combined total of more than 750 scheduled weekday stops adjacent to or within convenient walking distance of the project (total of all directions of travel), including about 65 scheduled project-serving stops during the weekday AM peak commute hour (between about 7:00 AM and 8:00 AM), along with about 55 scheduled site-serving stops during the weekday PM peak commute hour (between about 5:00 PM and 6:00 PM). As a result, the potential project-related increases in ridership on any individual bus would be minimal, and the proposed project is not expected to overburden the existing bus service in the study area.

Although the service schedule for the Purple ("D") Line extension has not been finalized, for the purposes of this study, it was assumed that the frequency of stops at the project-serving station at the intersection of Wilshire Boulevard and La Brea Avenue would be similar to the service along the existing Purple Line route, which provides a total of about 192 daily stops (total of both directions of travel) at its current western terminus at Wilshire Boulevard and Western Avenue, including about 12 stops each during both the AM and PM peak commute periods (headways of about 10 minutes per direction from 7:00 AM to 8:00 AM, and again from 5:00 PM to 6:00 PM). Therefore, on average, the proposed project would result in only about one or two riders on any individual Purple ("D") Line train both throughout the day and during the peak commute periods, and as such, no adverse project-related effects on this future public transit service are expected.

The project-related increases in public transit ridership described in the preceding evaluations will also result in new "pedestrian" activity, as these riders walk between the project site and the various transit stops in the project vicinity, including the new Purple ("D") Line station. Some of this new transit-related pedestrian traffic will occur within the same block as the project itself, due to the existing bus stop located adjacent to the site (Metro Line 20 and RapidBus Line 720), and as a result, project-related public transit users will not have to cross any streets in order to access their bus stop. For project residents, employees, and/or customers utilizing any of the other existing (or future) study area public transportation services, the pedestrian pathways between the project site and the various associated bus stops and the Purple ("D") Line station exhibit acceptable sidewalk widths, and signalized intersections with controlled crosswalks at all of the applicable street crossings within the project vicinity. Specifically, signalized crosswalks are provided at the project-adjacent intersections of Wilshire Boulevard and Cochran Avenue, and Wilshire Boulevard and Cloverdale Avenue, which can be used to access the bus stops located along the south side of Wilshire Boulevard (including the eastbound service stops for both Metro Line 20 and RapidBus Line 720). Further, a signalized crosswalk at the intersection of Wilshire Boulevard and Detroit Street, one block to the east of the project site, will provide for safe pedestrian access to both the Purple ("D") Line station, and to the various other bus stops located at or near the intersection of Wilshire Boulevard and La Brea Avenue.

Therefore, while the proposed project is expected to increase pedestrian activity in the vicinity, as described previously, the project is consistent with all City policies and programs related to providing and maintaining a safe and sustainable transportation infrastructure for pedestrians, and no adverse effects on pedestrian activity or associated infrastructure are anticipated.

# **Project Construction Evaluations**

In addition to the operational impacts of the proposed project, potential traffic impacts during the project's construction period were also examined. The construction activities for the project consists of four distinct phases; demolition of the existing on-site uses; excavation and shoring, which includes site preparation and/or export of earth or other materials; garage construction (construction of the project's subterranean parking levels); and building construction, which includes the remaining above-grade portions of the project along with all "finish" work such as landscaping, hardscapes, and other related activities. Pursuant to the requirements of the TAG, the following evaluations describe the potential effects of the construction-related activities of the proposed project on the various transportation facilities serving the project vicinity.

#### Haul Route

All site demolition and other excavation-related materials are anticipated to be exported to the Vulcan Materials (Reliance II) Landfill in the City of Irwindale approximately 30 miles northeast of the project site. In general, the demolition/excavation truck haul route will travel between the study area and the landfill site via the I-10 (Santa Monica) Freeway, SR-60 (Pomona) Freeway, and I-605 (San Gabriel River) Freeway, while within the project vicinity, the haul route will utilize La Brea Avenue between the I-10 Freeway and Wilshire Boulevard, with access to the site itself occurring from Cochran Avenue and/or Cloverdale Avenue (via Wilshire Boulevard), depending on the specific activity associated with the various project construction phases. As described previously in this report, both Wilshire Boulevard and La Brea Avenue along the proposed route are classified as "Avenue I (Secondary Highway)" facilities, and therefore, are appropriate for haul truck operations. The local access portion of the haul route is shown in Figure 17.

### Staging Areas and Construction Worker Parking

"Staging areas" are locations where large hauling or other construction-related vehicles await their use at the subject site. Typically, vehicles waiting at "remote" staging locations (away from the project site) are contacted by radio or phone and directed to travel to the site when needed. Staging areas for the proposed project's materials hauling and other large construction vehicles are currently anticipated to occur along Venice Boulevard (near La Brea Avenue), although the staging areas, as well as the haul route itself, are subject to review and approval by the City. The staging/storage of construction-related equipment (excavators, forklifts, loaders, etc.) will occur within the boundaries of the project site, and not on any adjacent streets. Additionally, the project's construction workers will park in designated off-site areas secured for this purpose, and either walk or otherwise be transported to and from the project site. As with the haul route and haul vehicle staging areas, the location(s) of the "remote" construction-related activities.

### Construction Activity Timelines and Traffic Generation Estimates

As described earlier, the "construction" of the proposed project involves four general phases; site demolition/preparation, excavation/shoring, garage construction, and building construction. In general, the evaluation of the project's temporary construction-related activities assumed that truck-related activity, including hauling of the demolition and excavation materials, and transport of project-related construction materials, would occur six (6) days a week (excluding Sundays),





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0/27/2021

generally between 7:00 AM to 5:00 PM on weekdays and 8:00 AM to 5:00 PM on Saturdays, although the actual building construction activities (not involving materials hauling or transport) could occur from 7:00 AM to 9:00 PM on weekdays, and 8:00 AM to 6:00 PM on Saturdays. However, additional assumptions specific to each of the various construction phases, such as its duration, the amount of haul material and number of trucks involved, number of workers, and anticipated maximum daily activity levels were also used, as described in the following pages.

### Demolition/Site Preparation Phase

The demolition/site preparation phase, which involves the removal of the existing development on the project site, including buildings, paving, and landscaping, is anticipated to occur over an approximately three-week period. An estimated 2,900 cubic yards of material will be removed using 11 typical cubic yard capacity dump trucks, resulting in a total of about 264 truckloads of exported material throughout this phase, including a maximum of about 20 haul loads per day. However, each haul load will include one empty "inbound" trip and one loaded "outbound" trip, producing a maximum of 40 (one-way) haul truck trips per day during this construction phase. Further, *Circular Number 212*<sup>3</sup>, also published by the Transportation Research Board ("TRB"), identifies that, for the purposes of evaluating the potential effects of large or heavy vehicles on the operations of streets and intersections, a passenger car equivalency ("pce") factor should be applied to the "raw" number of trips generated by such vehicles. This factor is used to account for the greater length, larger turning radii, and generally reduced acceleration characteristics of large trucks compared to typical automobiles. For this study, a pce factor of 2.0 was assumed, which equates to a maximum of about 80 pce haul truck trips (40 inbound, 40 outbound) per day, or an average of about eight pce trips per hour (four inbound, four outbound) during this phase.

The demolition/site preparation phase will also result in a number of construction-worker trips. However, a maximum of only about eight workers, including equipment operators, flag persons, and other miscellaneous workers, are expected to be on-site at any time, and as noted earlier, all workers will park at off-site locations to minimize project-related traffic at and near the site.

Finally, the on-site equipment for this phase will consist of typical demolition-process vehicles, including but not limited to excavators, loaders/backhoes, pneumatic chipper, concrete breaker, and other similar vehicles. The transportation of this equipment to and from the project site is expected to result in minimal traffic, as it will not all be delivered or removed at the same time, and is likely to be moved only once at the beginning and once at the end of this phase.

<sup>&</sup>lt;sup>3</sup> Interim Materials on Highway Capacity, Circular Number 212, Transportation Research Board, Washington, D.C., 1980.

#### Excavation and Shoring Phase

This phase of construction consists primarily of the export of earth and other material associated with the excavation of the site in order to construct the project's subterranean (parking) levels, and is expected to produce the highest level of haul truck activity. The excavation operations will use 14 cubic yard capacity trucks to remove an estimated 141,000 total cubic yards of material from the project site over the course of approximately four months, generating a total of about 10,080 haul loads throughout this phase, with a maximum of up to 210 haul loads per day. Assuming a typical weekday hauling period of 10 hours (7:00 AM to 5:00 PM) would produce about 21 haul loads per hour, or about 42 haul truck trips per hour (21 inbound, 21 outbound). Since the trucks used for this phase are larger than those utilized during the demolition phase (14 cubic yard capacity compared to 11 cubic yard capacity), for the purposes of this evaluation, a pce factor of 2.5 was assumed (versus the prior 2.0 pce factor), which equates to an average of about 106 pce haul truck trips (53 inbound, 53 outbound) per hour during a peak activity day.

Conversely, the number of construction worker trips during excavation and shoring activities is expected to be relatively low, with a maximum of only about 26 workers at the site at any time during this phase, again including equipment operators, flag persons, and others. Additionally, as described previously, these workers will park their vehicles at off-site locations and walk or be transported to and from the project site in order to minimize the amount of traffic occurring in the project vicinity, and as a result, the number of worker trips during this phase will be nominal.

The equipment used for this phase is expected to consist of typical excavation-related vehicles, including various excavators, loaders, backhoes, forklifts, tractors, and other similar vehicles, many of which would be retained on-site from the previous demolition/site preparation phase, although additional temporary-use equipment such as a drill rig, scraper, or bulldozers may also be needed during excavation. The delivery of this equipment to and/or its removal from the site is not anticipated to result in any significant or ongoing site-related traffic, as these operations will occur infrequently and intermittently throughout this phase of the project's construction.

### Garage Construction Phase

This phase is associated primarily with the construction of the proposed project's foundations and other subterranean components, including the below-grade levels of the parking garage, and is anticipated to require about four months to complete. Unlike the project's demolition or excavation/shoring activities discussed earlier, the garage construction phase does not produce a substantial number of haul trips; trucking activities during this phase generally involve only a few trucks delivering construction-related materials to the site at any given time, depending on the construction schedule. The most intense activity will occur during concrete pouring for the project's foundation, parking structure, and related components, which is estimated to require a total of approximately 27,685 cubic yards of concrete. The concrete will be delivered to the site using typical 11 cubic yard mixer trucks, resulting in about 2,517 total truckloads over the course of the garage construction phase concrete pouring operations. Although the daily activity levels at the project site will likely vary considerably throughout this phase, it is anticipated that the typical "peak" pouring operations could generate up to about 40 truckloads of concrete per day, or up to a total of approximately 80 concrete mixer truck trips (40 inbound, 40 outbound) per day. Note that several concrete pours exceeding this otherwise "typical" peak daily pouring activity will also be necessary during this phase. However, these large pours will occur infrequently, and will obtain special permitting to allow for extended work hours, weekend operations, or both.

The construction of large concrete structures such as footings, foundations, floors, and walls typically involves the placement of the concrete in continuous, uninterrupted pours to ensure its structural properties. Additionally, the concrete mixer trucks must off-load the concrete within a limited period of time (from when it is initially mixed) so that it does not begin to "set up" or otherwise become unusable, and as such, on days when concrete pouring occurs, it is expected that the concrete mixer trucks will arrive at the site approximately equally spaced throughout the pouring operations. Therefore, the typical "peak" pours (up to 40 daily concrete loads) could generate an average of about four truckloads per hour during the 10-hour (weekday) work period, or up to a total of about eight concrete mixer truck trips (four inbound, four outbound) per hour. For this study, it was assumed that each concrete mixer truck exhibits a pce of 2.0, resulting in an average of about 16 pce truck trips (eight inbound, eight outbound) per hour during peak days.

The garage construction phase of the project will exhibit a maximum of about 66 on-site workers at any time. As with each of the preceding construction phases, all site-related workers will park their vehicles at designated off-site locations, and as such, the number of worker-related trips occurring during this phase of the proposed project's construction are expected to be nominal.

The on-site equipment utilized during the project's garage construction phase is expected to include pumps, cranes, material/personnel hoists, backhoes/loaders, compactors, forklifts, and other similar equipment and vehicles. The delivery of this equipment to or its removal from the project site will typically occur sporadically, and is not expected to produce any substantial traffic.

#### **Building Construction Phase**

The building construction phase includes the completion of all remaining (above-grade) portions of the proposed project, including the ground-floor retail/commercial levels, the parking podium, and residential tower, along with any roadway, sidewalk, or other infrastructure improvements adjacent to the project site, and is anticipated to require approximately 29 months to complete. Similar to the garage construction activities described earlier, the building construction phase does not generate a substantial number of haul trips, with truck-related activities dependent on the construction schedule, weather, and other factors, and generally involving only a few trucks at a time delivering construction materials to the project site. The most intense activity will occur during concrete pouring for the building structure or other related components, which will involve a total of approximately 25,372 cubic yards of concrete throughout the duration of this phase. As with the garage construction phase, the concrete delivery will use 11 cubic yard mixer trucks, producing about 2,306 total truckloads during this phase, including expected peak daily deliveries of up to about 42 loads per day, or four to five truckloads per hour on a typical 10-hour workday. Once again assuming a concrete mixer truck pce factor of 2.0, the concrete pouring operations could result in an average of up to about 20 pce truck trips (10 inbound, 10 outbound) per hour.

Much of the equipment used during the building construction phase will be retained on-site from the preceding garage construction phase, and as such, only limited and occasional deliveries of additional equipment are expected. The transporting of construction-related materials to the site will also occur at various times throughout this phase, although the specific number of deliveries cannot be quantified at this time. However, it is anticipated that the material deliveries will not require more than about 20 truckloads per day, or an average of about two truckloads per hour during a typical workday. Since the delivery of some of the construction materials will require the use of semi-trailer trucks, a pce factor of 3.0 was assumed for these vehicles, resulting in an average of about 12 pce truck trips (six inbound, six outbound) per hour on a peak delivery day.

The building construction phase is expected to exhibit a maximum of up to about 450 workers at the project site at any time. As described for each of the preceding phases, these workers will be required to park their vehicles at the approved off-site parking locations in order to reduce the amount of project-related traffic at and near the project site. Although not specifically noted in the previous discussions of the off-site worker parking areas, due to the substantial number of workers associated with this construction phase compared to earlier phases, it is recommended that a shuttle bus or van be provided to transport the workers to and from the project site.

## Project Construction-Related Effects on Access, Transit, and Parking

Based on the various project construction-related operations described in the preceding section, the potential effects of these activities on the study area transportation facilities were evaluated. The anticipated effects of the project's construction activity on vehicular access and circulation, pedestrian and bicycle facilities, public transit facilities and operations, and on-street parking within the immediate project vicinity are described in the following pages.

## Local and Site Vehicular Access and Circulation

In general, the amount of traffic generated by each of the project's various construction phases, including that related to haul trucks, concrete trucks, and equipment/materials delivery vehicles, is not expected to result in any extended detrimental or undesirable effects on the operations of the streets or intersections in the study area. However, occasional short term traffic congestion could occur at locations immediately adjacent to the project during some construction activities, such as when large trucks arrive at or depart from the site, or during large-scale concrete pours.

Although the proposed project's construction-related traffic itself is not expected to result in any long-duration adverse traffic circulation effects on the intersections or streets in the study area, its construction operations will affect each of the streets fronting the project site. Specifically, the project's construction activities propose the closure of the curb lane on Wilshire Boulevard adjacent to the site, and the removal of the existing on-street parking along the site frontages of both Cochran Avenue and Cloverdale Avenue for the duration of the construction operations, which as described previously, is anticipated to occur over a period of approximately 38 months.

The curb lane on Wilshire Boulevard throughout the study area, including along the frontage of the project site, is currently designated as a "Bus Only" transit priority lane during the weekday morning and afternoon/evening peak commute traffic periods (7:00 to 9:00 AM, 4:00 to 7:00 PM), although three time-restricted (two hours, weekdays only) metered parking spaces located adjacent to the project site (near Cochran Avenue) are available during the "off-peak" hours. During the construction of the proposed project, the Wilshire Boulevard (westbound) curb lane would be closed to all traffic, and utilized for project-related equipment and materials deliveries. However, although this proposed lane closure will affect both existing public transit operations and on-street parking in the immediate project vicinity (as discussed later in this report), this lane is used either as a designated bus lane or for on-street parking throughout the majority of the typical weekday "daytime" traffic periods (7:00 AM to 7:00 PM), and as such, is unavailable as a

general-use "through" traffic lane. Therefore, the proposed construction-related closure of the westbound curb lane along the site frontage is not anticipated to result in a substantial reduction in the overall traffic-carrying capacity of Wilshire Boulevard within the study area. Additionally, the construction-related use of the existing on-street parking areas along both Cochran Avenue and Cloverdale Avenue adjacent to the project site will not affect the travel lanes on either street, and no detrimental effects to the traffic circulation or capacity of these facilities is expected.

### Pedestrian and Bicycle Facilities

The project's construction operations also include the proposed closure of the existing sidewalks along the site frontages of Wilshire Boulevard, Cochran Avenue, and Cloverdale Avenue for use as equipment staging areas and/or other related uses for the duration of the construction period. To avoid moving pedestrian traffic along Wilshire Boulevard into the street (which could require closing one of the westbound "through" lanes in addition to the curb lane), pedestrians will be directed to use the sidewalk on the south side of Wilshire Boulevard between Cochran Avenue and Cloverdale Avenue, using the signalized crosswalks at one or both of these intersections (both of which exhibit ADA-required wheelchair curb ramps and crosswalk "activation" buttons on all four corners) to cross Wilshire Boulevard. Although the overall pedestrian path distance between Cochran Avenue and Cloverdale Avenue using this pedestrian "detour" would increase by about 150 feet compared to the "direct" distance between these streets, the effects of the project's construction operations on Wilshire Boulevard pedestrians is expected to be nominal.

Similarly, the closure of the existing sidewalks along the site frontages of both Cochran Avenue and Cloverdale Avenue would require that pedestrians use the sidewalks on the opposite side of the street from the project site on each facility. Because there are no mid-block crosswalks or other "protected" means of crossing the street on either Cochran Avenue of Cloverdale Avenue between Wilshire Boulevard and 6<sup>th</sup> Street (the first street north of the project site), signage will be provided at the 6<sup>th</sup> Street intersections with both of these streets to direct pedestrians to use the appropriate sidewalks. Since both of these intersections exhibit wheelchair curb ramps on each corner, and signalized crosswalks (with pedestrian activation button) are also provided at 6<sup>th</sup> Street and Cochran Avenue, the construction-related operations of the proposed project will have minimal effects on the pedestrian activity along Cochran Avenue and Cloverdale Avenue.

Further, none of the three site-fronting streets currently exhibit any dedicated bicycle facilities, although Wilshire Boulevard throughout the study area is programmed for the future installation of a Priority Bicycle Lane, and Cochran Avenue is included as a part of the Mobility Plan 2035

95

Bicycle Enhanced Network ("BEN"); no bicycle facilities or future bicycle-related improvements are identified for Cloverdale Avenue within the project vicinity. However, the proposed project's construction operations will not affect or otherwise preclude the City's long term implementation of any future bicycle-related infrastructure, plans, or programs along any of the subject streets, and therefore, no detrimental or undesirable effects on the area bicycle network are expected.

## Public Transit Facilities and Operations

As described earlier, the project's construction operations include the proposed closure of both the westbound curb lane on Wilshire Boulevard adjacent to the site, and the sidewalks along the project frontages of Wilshire Boulevard, Cochran Avenue, and Cloverdale Avenue. The closure of the Wilshire Boulevard curb lane, which provides a dedicated "Bus Only" transit priority lane through the study area during the morning and afternoon/evening peak commute traffic periods, will require buses using this lane to merge into the adjacent westbound mixed-flow through lane at Cloverdale Avenue, although they will be able to re-enter the "Bus Only" lane to the west of the project site, beginning at Cochran Avenue. While this maneuver could result in increases in headway times as the buses negotiate through the peak period traffic flows, any such increases are expected to be nominal, since it will only be necessary for one block (less than 300 feet). During "off-peak" hours when this lane provides on-street parking, buses already travel in the mixed-flow lanes, and therefore would not be affected by the project's construction operations.

However, a bus stop/shelter currently exists on Wilshire Boulevard adjacent to the project site, and the project's proposed closure of the sidewalks along this frontage of the project will require that the bus stop/shelter be relocated. It is anticipated that the bus stop/shelter will be moved to the block immediately west of the project site, between Cochran Avenue and Dunsmuir Avenue, although the specific location will be subject to review and approval by Metro prior to the start of the project's construction activities. Nonetheless, the relocation of the existing bus stop/shelter is not expected to result in any substantial detrimental effects on access to this facility or to the operations of the various bus lines serving the project site or the surrounding vicinity.

# **On-Street Parking**

Finally, the proposed construction operation-related closure of the Wilshire Boulevard curb lane and use of the "parking" areas on both Cochran Avenue and Cloverdale Avenue adjacent to the project site will result in the temporary removal of about 10 metered on-street parking spaces, including three two-hour spaces (9:00 AM to 4:00 PM, except Sunday) on Wilshire Boulevard, four two-hour spaces (8:00 AM to 8:00 PM, except Sunday, although two of these spaces are also designated for 30-minute loading-only activities between 4:00 and 6:00 PM on weekdays) along Cloverdale Avenue, and three one-hour spaces (8:00 AM to 4:00 PM, except Sunday) on Cochran Avenue. Since it is reasonable to assume that these on-street parking spaces are currently utilized primarily by patrons of the existing on-site retail and commercial businesses, all of which will be removed in order to construct the proposed project, the potential effects of the short term removal of these spaces on the overall public parking supply within the study area during the project's construction operations are expected to be minimal. However, the removal of these metered spaces, which are expected to be made available to the public again following the completion of the proposed project, will result in a loss of parking meter revenue during the construction period, and the project will be required to reimburse the City accordingly.

#### Project Construction Management Plan

Although the proposed project's construction-related traffic and operations are not anticipated to result in any substantial detrimental or undesirable effects on vehicular circulation or access, pedestrian or bicycle activity, public transit facilities or operations, or on-street public parking in the immediate project vicinity, a detailed Construction Traffic Management Plan ("CTMP") and associated Worksite Traffic Control Plan ("WTCP") will be prepared and submitted to the City for review and approval prior to the start of any construction-related activity. The CTMP will discuss the specifics of the project's construction operations, including the overall construction schedule and individual construction phases, proposed work days and hours of construction, haul route, vehicle staging areas, street and sidewalk closures, location(s) of off-site worker parking lots, and other construction-related issues, and will formalize how the project construction operations will occur, as well as identify any actions or plans/programs that may be required to minimize the effects of the construction activities on the surrounding community. The WTCP will identify the details related to the implementation of the proposed lane and sidewalk closures, including the location and content of signage, the placement of traffic cones and/or traffic control devices, and other information regarding the management of vehicular, pedestrian, and bicycle activity in the immediate project vicinity throughout the duration of the proposed project's construction.

#### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The results of the analyses summarized in this report indicate that the proposed development of a new mixed-use (residential and commercial) project at 688 S. Cochran Avenue, containing a total of 348 residential apartments (including 38 "affordable" units) and about 12,821 square feet of retail and restaurant/café floor area, would not result in any significant CEQA-related impacts. Further, no undesirable project-related traffic impacts or other significant negative effects to any of the vehicular, bicycle, or pedestrian transportation facilities within the study area are anticipated.

The transportation assessment for the proposed project was prepared pursuant to LADOT's current Transportation Assessment Guidelines ("TAG"). The CEQA-related analyses detailed in this report indicate that the project will result in less-than-significant impacts related to the City's recently-adopted vehicle miles traveled ("VMT") standards. While the VMT analyses assumed the project's incorporation of several VMT-reducing measures, such as reduced vehicular parking (versus typical LAMC requirements) and the inclusion of Code-compliant on-site bicycle parking, it is of note that the proposed project would not result in any significant VMT-related impacts without either of these factors. Nonetheless, the proposed project will incorporate both of these elements into its design, and will also include several additional measures to educate and inform its residents and employees about the various public transit and/or other transportation options available at the project site itself or within the surrounding vicinity, such as the provision of information kiosks, posters, and/or a website containing public transit route maps and schedules.

While no other specific trip-reduction measures were assumed for the purposes of this study, the proposed project will be required by ordinance to comply with all applicable requirements of the City's current Transportation Demand Management ("TDM") Ordinance (in effect at the time of the project's approval), which may include additional measures such as on-site assistance to project residents and employees in identifying convenient public transit travel options and/or the formation of carpools or other ride-share programs, "unbundling" of parking for project residents, parking cash-out for site employees, and/or transit pass subsidies for residents and employees.

At a minimum, the project's TDM program will include the trip-reduction measures and programs identified in the City's TDM Ordinance (LAMC Section 12.26.J), as may be appropriate for the project's individual residential and commercial components. As described earlier in this report, the project transportation impact evaluations assumed the use of both the existing bus service and future Purple ("D") Line subway, and the project's TDM program will include measures to

expand the use of these transit facilities, as well as to encourage other trip-reducing strategies such as carpooling and ridesharing, bicycle ridership, and telecommuting. An overview of the project's potential TDM program elements is discussed below.

<u>Project Transportation Demand Management ("TDM") Program</u> – The project will implement a Transportation Demand Management program to reduce both daily and peak hour trips to and from the project site. This program shall be available to residents, visitors, employees, and patrons of the project. The program will be overseen by a TDM coordinator, who will assist with the development, operation, and implementation of the various programs, including but not limited to carpool incentives, rideshare matching, bicycle lockers, and variable work shifts. A menu of items that may be included in the TDM program, developed specifically for the project or taken from the City's TDM Ordinance, are described below; note that not all of these elements would apply to all of the project's component uses.

- On-site Transportation Coordinator, in charge of:
  - Carpool/Vanpool and Rideshare Matching
  - Preferential Vanpool/Carpool Parking
  - Transit Passes or Subsidies
  - Parking Cash-Out or Unbundled Parking (for project residents)
  - Loaner Bicycles and/or Flex-Use Vehicles
  - Guaranteed Ride Home
- Bicycle Racks and Showers/Lockers
- Flexible Work Hours/Telecommute Opportunities
- Improved or New Bus/Transit Stop Shelters and/or Amenities
- Wayfinding Information and Signage

While the specifics of the TDM program cannot be fully identified at this time, due primarily to uncertainty regarding the project's potential commercial tenants, the City typically requires that a draft TDM Plan be submitted to LADOT for review and comment prior to the issuance of any project-related construction permits, with a final TDM Plan to be approved prior to the issuance of certificates of occupancy for any of the proposed project's residential or commercial uses.

With the implementation of the project's design features (including reduced vehicular parking, on-site bicycle parking, and the City-required TDM program), no significant VMT-related impacts are anticipated. Additionally, the proposed project is consistent with all applicable City plans,
programs, and policies related to providing and maintaining a sustainable transportation network, including but not limited to the Mobility Plan 2035, and Vision Zero Action and Corridor Plans. Further, the project will not result in significant impacts to any pedestrian or bicycle facilities, or to public transit access or service in the study area. Therefore, the proposed project does not exhibit any significant CEQA-related impacts, and no CEQA mitigation measures are warranted.

Once it is completed, the project is not expected to result in detrimental or undesirable effects on the site-adjacent intersections, and no physical or operational improvements associated with any project-related operational deficiencies are necessary, although the project will be required to provide a three-foot right-of-way dedication along its frontage of Cochran Avenue to comply with the Mobility Plan 2035 design standards for this street. The project is not expected to induce any new non-project "cut-through" traffic on either Cochran Avenue or Cloverdale Avenue in the immediate project vicinity (along the subject segments between Wilshire Boulevard and 6<sup>th</sup> Street), and is not anticipated to result in any adverse effects on these local-serving streets. All of the project's driveways will exhibit acceptable operational capacities, and are not expected to create any long-duration "internal" or on-street vehicular queues, or disrupt pedestrian activity or traffic flows along either Cochran Avenue or Cloverdale Avenue. Further, the project will not adversely affect any of the pedestrian or bicycle activity or public transit facilities in the area.

However, during its approximately 36-month construction period, both the westbound curb lane on Wilshire Boulevard adjacent to the project site, and the sidewalks along the project frontages of Wilshire Boulevard, Cochran Avenue, and Cloverdale Avenue are proposed to be closed, while the existing on-street parking areas along both Cochran Avenue and Cloverdale Avenue adjacent to the project site are proposed to be used for construction-related equipment staging.

The Wilshire Boulevard curb lane serves as a dedicated "Bus Only" lane through the study area during the morning and afternoon/evening peak commute traffic periods, and will require buses using this lane to merge into the adjacent mixed-flow through lane between Cloverdale Avenue and Cochran Avenue, which could increase bus headway times during the peak traffic periods, although any such increases are expected to be nominal. The construction-related closure of the Wilshire Boulevard curb lane, and the removal of the "parking" areas on Cochran Avenue and Cloverdale Avenue will temporarily remove a total of 10 metered on-street parking spaces, and although the effects of removal of these spaces on the overall public parking supply in the study area is expected to be minimal, it will result in a loss of parking meter revenue during the construction period, and the project will be required to reimburse the City accordingly.

Additionally, the closure of the sidewalks along each of the project frontages will necessitate the relocation of the existing bus stop/shelter along Wilshire Boulevard adjacent to the project site. It is anticipated that the bus stop/shelter will be moved one block to the west of the project site, between Cochran Avenue and Dunsmuir Avenue, although the final location will be determined by Metro prior to the initiation of the project's construction operations. As a result, the relocation of the existing bus stop/shelter is not anticipated to result in any substantial detrimental effects on access to this facility or to the operations of the various bus lines currently utilizing this stop. The construction-related sidewalk closures will also require the rerouting of the pedestrian traffic along each of the site-adjacent streets. Pedestrians on the Wilshire Boulevard frontage will be directed to the sidewalk on the south side of the street, using the signalized crosswalks provided at Cochran Avenue and Cloverdale Avenue to cross Wilshire Boulevard. Similarly, pedestrians using the site-adjacent portions of the sidewalks on Cochran Avenue and Cloverdale Avenue will need to use the sidewalks provided on the opposite side of the street from the project site. However, the overall effects of the rerouting of the pedestrian paths are expected to be nominal.

Further, none of the site-fronting streets currently exhibit any dedicated bicycle-related facilities, and as a result, the proposed project's construction operations will neither affect nor preclude the City's implementation of future bicycle-related infrastructure, plans, or programs along any of the subject streets, and no detrimental effects on the area bicycle network are expected.

The project will be required to prepare both a Construction Traffic Management Plan ("CTMP") and Worksite Traffic Control Plan ("WTCP") for submittal to and approval by the City prior to the start of project construction. The CTMP will detail the project's construction-related operations, and identify measures that may be required to minimize effects on the surrounding community, while the WTCP will identify the details related to the management of vehicular, pedestrian, and bicycle activity in the project vicinity throughout the proposed project's construction activities.

# **TRANSPORTATION ASSESSMENT REPORT - APPENDIX**

## Proposed Mixed-Use (Residential and Commercial) Development (348 Apartment Units and 12,821 Sq. Ft. Commercial) 688 S. Cochran Avenue Los Angeles, California



**Prepared for:** 

Walter N. Marks, Inc. 8758 Venice Boulevard, Suite 100 Los Angeles, California 90034

Prepared by:



Hirsch/Green Transportation Consulting, Inc. 13333 Ventura Boulevard, #204 Sherman Oaks, California 91423 (818) 325-0530



**MAY 2022** 

APPENDICES

APPENDIX A

SINGLE-UNIT TRUCK (SU-30) TURNING MOVEMENT ANALYSIS PROPOSED PROJECT PORTE COCHERE ENTRY AND EXIT DRIVEWAYS



4/20/2022

Hirsch/Green Transportation Consulting, Inc.



4/20/2022



APPENDIX B

PROJECT-SERVING BUS ROUTE MAPS AND SCHEDULES

Metro Line 20





**ROUTE MAP** 

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### Monday through Friday Effective Dec 14 2014

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Effective Dec 14 2014

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_	_	3:15	3:23	3:41	3:58	4:05	4:11	4:26	1:57	2:16	2:22	2:30	2:46	3:01	3:12	_	_
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									9:18	9:31	9:36	9:42	9:54	10:05	10:13	10:25	10:34
									9:44	9:56	10:01	10:07	10:19	10:30	10:37	10:49	10:57

# Sunday and Holiday Schedule

# 20

Eastk	ound	<b>d</b> (Appro	ximate T	imes)					West	boun	<b>d</b> (Appro	oximate	Times)				
SANTA Monica		WESTWOOD	BEVERLY HILLS	LOS Angeles					LOS Angeles					BEVERLY HILLS	WESTWOOD	SANTA Monica	
Main & Pico	Wilshire & 14th	Wilshire & Westwood	Wilshire & Santa Monica	Wilshire & Fairfax	Wilshire/Western Station	Wilshire/Vermont Station	Wilshire & Alvarado	7th & Main	7th & Maple	Wilshire & Alvarado	Wilshire/Vermont Station	Wilshire/Western Station	Wilshire & Fairfax	Wilshire & Santa Monica	Wilshire & Westwood	Wilshire & 14th	Main & Pico
5:01A	5:09A	5:20A	5:26A	5:36A	5:47A	5:52A	5:56A	6:07A	4:15A	4:25A	4:29A	4:34A	4:44A	4:54A	5:00A	5:12A	5:20A
5.53	6.01	6.12	6.18	6:03	6:14	6:17	6:23	7.02	4:40	4:55	4:37	5.3/	5.44	5.5/	6.00	6.12	6.21
6.15	6.23	6.34	6.41	6.53	7.05	7.11	7.17	7:30	5.45	5.55	5.59	6.04	6.14	6.24	6:31	6.45	6.54
6:39	6:47	6:59	7:06	7:18	7:31	7:37	7:43	7:56	6:07	6:17	6:22	6:27	6:38	6:48	6:55	7:09	7:18
7:04	7:12	7:24	7:31	7:43	7:56	8:02	8:08	8:21	6:32	6:42	6:47	6:52	7:03	7:15	7:24	_	_
_	_	7:49	7:56	8:08	8:21	8:27	8:33	8:47	6:54	7:04	7:09	7:15	7:26	7:38	7:47	_	_
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-	-	9:47	9:54	10:08	10:23	10:30	10:36	10:51	8:49	9:02	9:08	9:15	9:29	9:42	9:52	—	-
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-	-	10:27	10:34	10:48	11:03	11:10	11:16	11:32	9:28	9:42	9:48	9:55	10:09	10:22	10:33	_	-
_	-	10:46	10:53	11:08	11:23	11:30	11:36	11:52	9:48	10:02	10:08	10:15	10:30	10:43	10:54	—	-
_	-	11.24	11:13	11:20	12.020	12,100	12.140	12:12P	10:07	10:22	10:20	10:35	11.10	11.03	11:14	_	_
_	_	11.20	11.53	12-08P	12:03	12:10	12:10	12:52	10:27	11.02	11.08	11.15	11.30	11.23	11.54	_	_
_	_	12.06P	12-13P	12.001	12.20	12.50	12.56	1.12	11.07	11.02	11.00	11.35	11.50	12.03P	12.14P	_	_
_	_	12:26	12:33	12:48	1:03	1:10	1:16	1:32	11:27	11:42	11:48	11:55	12:10P	12:23	12:34	_	_
_	_	12:46	12:53	1:08	1:23	1:30	1:36	1:52	11:47	12:02P	12:08P	12:15P	12:30	12:43	12:54	_	—
_	_	1:05	1:12	1:27	1:43	1:50	1:56	2:12	12:07P	12:22	12:28	12:35	12:50	1:03	1:14	_	_
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-	-	3:23	3:31	3:47	4:03	4:10	4:16	4:32	2:27	2:42	2:48	2:55	3:10	3:23	3:34	—	—
_	-	3:43	3:51	4:07	4:23	4:30	4:30	4:52	2:47	3:02	2.20	2.25	2.50	6.02	3:54	_	_
_	_	4:03	4.11	4:27	5.02	5.10	5.14	5.22	3.07	3./.2	3.20	3.55	6.10	4:03	4:14		_
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_	_	5:03	5:11	5:27	5:43	5:50	5:56	6:11	4:07	4:22	4:28	4:35	4:50	5:03	5:14	_	_
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		10.17	10.20	10.00	10.47	10.00	10.07		9:45	9:56	10:01	10:07	10:19	10:30	10:37	10:49	10:57

See Late Night/Owl Schedule below for Additional Service

See Late Night/Owl Schedule below for Additional Service

# Saturday/Sunday Late/Owl Schedule

20

#### Eastbound (Approximate Times)

### Westbound (Approximate Times)

SANTA Monica		WESTWOOD	BEVERLY HILLS	LOS ANGELES					LOS ANGELES					BEVERLY HILLS	WESTWOOD	SANTA Monica	
Main & Pico	Wilshire & 14th	Wilshire & Westwood	Wilshire & Santa Monica	Wilshire & Fairfax	Wilshire / Western Station	Wilshire / Vermont Station	Wilshire & Alvarado	7th & Main	7th & Maple	Wilshire & Alvarado	Wilshire / Vermont Station	Wilshire / Western Station	Wilshire & Fairfax	Wilshire & Santa Monica	Wilshire & Westwood	Wilshire & 14th	Main & Pico
			10 E/D	11 0/D	11 170	44.000	11 0/D	11 2/D		40.0/0	10.010	10.0/0	10:48P	10:58P	11.05P	11:16P	11:24P
10:23P	10:35P	10:49P	10:54P	11:00P	11:17P	11:22P	11:26P	11:30P	10:13P	10:26P	10:31P	10:36P	44 477 1		11.001		
10:23P 10:55	10:35P 11:07	10:49P 11:20	10:54P 11:25	11:37	11:48	11:22P 11:53	11:26P	12:06A	10:13P 10:45	10:26P 10:58	10:31P 11:02	11:07	11:17	11:26	11:33	11:43	11:51
10:23P 10:55 11:26	10:35P 11:07 11:38	10:49P 11:20 11:51	10:54P 11:25 11:56	11:08P 11:37 12:08A	11:17P 11:48 12:19A	11:22P 11:53 12:24A	11:26P 11:57 12:28A	12:06A 12:36	10:13P 10:45 11:16	10:26P 10:58 11:28	10:31P 11:02 11:32	11:07 11:37	11:17	11:26 11:56	11:33 12:02A	11:43 12:12A	11:51 12:20A
10:23P 10:55 11:26 12:00A	10:35P 11:07 11:38 12:11A	10:49P 11:20 11:51 12:23A	10:54P 11:25 11:56 12:28A	11:06P 11:37 12:08A 12:40	11:17P 11:48 12:19A 12:49	11:22P 11:53 12:24A 12:54	11:26P 11:57 12:28A 12:58	12:06A 12:36 1:06	10:13P 10:45 11:16 11:46	10:26P 10:58 11:28 11:58	10:31P 11:02 11:32 12:02A	10:36P 11:07 11:37 12:07A	11:17 11:47 12:17A	11:26 11:56 12:26A	11:33 12:02A 12:32	11:43 12:12A 12:42	11:51 12:20A 12:50
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## Sunday and Holiday Schedules

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

### **Special Notes**

- Trip starts at Wilshire & Highland 7 minutes before time shown at Wilshire & Western. Operates school days only, except early dismissal school days.
   Phone Metro Information for exact days of operation.
- Operation on early dismissal school days. Trip starts at Wilshire & Highland 7 minutes before time shown at Wilshire & Western.

Phone Metro Information for exact days of operation.

## 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.

### Avisos especiales

- Viaje comienza en Wilshire y Highland 7 minutos antes de la hora mostrada en Wilshire y Western. Opera dias de escuela solamente, menos los dias de despido temprano de escuela. Favor de llamar para mas informacion los dias exactos de operacion.
- Opera dias de escuela solamente menos los dias de despido temprano de escuela. Viaje comienza en Wilshire y Highland 7 minutos antes de la hora mostrada en Wilshire y Western. Favor de llamar para mas informacion los dias exactos de operacion.

Metro Lines 212/312



### Effective Jun 24 2018

# 212/312

#### Northbound (Approximate Times)



### Monday through Friday

# 212/312

Southbou	nd (Approxim	nate Times)						
	ноггумоор		MIRACLE MILE	BALDWIN HILLS		INGLEWOOD		HAWTHORNE
	0		6	<b>5</b>		3	2	1
Route	Hollywood & Vine	Hawthorn & Orange	La Brea & 8th	Expo/La Brea Station	Slauson & Overhill	Manchester & Market	Hillcrest & Manchester	Hawthor ne/Lennox ( Station
212 212	4:42A 5:13	Ξ	4:59A 5:30	5:11A 5:42	5:18A 5:49	5:30A 6:00	6:02A	5:42A
212 212	5:38 6:00	_	5:55 6:18	6:08 6:31	6:16 6:39	6:29 6:52	_	6:41 7:05
212 212	6:27	6:17A	6:34 6:47	6:48 7:01	6:56 7:10	7:08 7:24	7:11	7:37
212 212	6:48	6:41	6:59 7:10	7:14	7:23	7:35 7:48	7:38	8:01
212	7:10	7:02	7:21	7:36	7:45	7:57	8:00	8.25
212	7:20	-	7:45	8:01	8:10	8:22	8:25	8.49
212	7:31	7:46	8:08	8:24	8:33	8:45	8:48	8:47
212 212	7:54	8:10	8:20 8:32	8:36 8:48	8:45 8:57	8:59 9:09	9:12	9:13
212 212	8:18 8:32	=	8:44 8:58	9:00 9:14	9:09 9:23	9:23 9:36	9:39	9:37
212 212	8:46 9:00	_	9:12 9:26	9:28 9:42	9:37 9:51	9:51 10:04	10:07	10:05
212 212	9:14 9:28	_	9:40 9:54	9:56 10:10	10:05 10:19	10:19 10:32	10:35	10:33
212	9:42	_	10:08	10:24	10:33	10:47	11.03	11:02
212	10:10	_	10:36	10:52	11:01	11:15	11.03	11:30
212	10:24	_	11:04	11:21	11:31	11:45	11:32	11:59
212	11:04	=	11:18	11:35	11:45	12:15P	12:01P	12:30P
212 212	11:17 11:31	_	11:46 11:59	12:03P 12:18	12:13P 12:28	12:26	12:29	1:00
212	11:44	_	12:14P 12:28	12:32	12:42	12:55 1:12	12:58	1:28
212	12:11P	-	12:42	1:00	1:10	1:23	1:26	1.54
212	12:39	-	1:10	1:28	1:38	1:51	1:54	2.24
212	1:07	=	1:24	1:43	2:07	2:20	2:23	2:28
212	1:21	=	2:06	2:12 2:26	2:22	2:39 2:49	2:52	2:55
212 212	2:02	_	2:20	2:40 2:53	2:50 3:03	3:07 3:16	3:19	3:23
212 212	2:22	2:18P	2:43 2:53	3:03 3:14	3:13 3:24	3:30 3:37	3:40	3:46
212 212	2:42	2:38	3:03 3:13	3:24 3:34	3:34 3:44	3:51 3:57	4:00	4:07
312 212	2:59	3:00	3:23	3:40 3:51	3:50	4:07 4:14	4.17	4:22
312	3:16	3:17	3:40	3:57	4:07	4:24	4.36	4:39
312	2.20	3:31	3:54	4:11	4:21	4:38	4.54	4:53
312	3:30	3:45	4:01	4:22	4:32	4:45	4:48	5:06
312	3:44	3:59	4:15	4:37	4:47	5:00	5:03	5:19
312	3:58	4:14	4:29	4:53	5:03	5:16 5:19	5:19	5:33
212 312	4:14	4:29	4:43 4:50	5:07 5:07	5:17 5:17	5:30 5:33	5:33	5:47
212 312	4:27	4:43	4:57 5:04	5:21 5:22	5:31 5:32	5:44 5:48	5:47	6:02
212	4:41	4.57	5:11 5:18	5:35	5:45	5:58	6:01	6:16
212	4:55	5.10	5:25	5:49	5:59	6:12	6:15	6.37
212	5:11	5.10 E.29	5:41	6:05	6:15	6:28	6:31	6.57
212	5:33	5.20	6:03	6:27	6:37	6:50	6:53	0:55 
212	5:59	5:54	6:29	6:50	7:00	7:13	7:16	7:17
212 212	6:23	6:18	6:41 6:53	7:02 7:12	7:11 7:21	7:25 7:34	7:37	7:38
212 212	6:47	6:42	7:05 7:17	7:23 7:34	7:32 7:42	7:44 7:55	7:58	7:56
212 212	7:00 7:13	_	7:29 7:41	7:45 7:57	7:53	8:05 8:17	_	8:17 8:29
212	7:25	B7.44	7:53	8:09 8:22	8:17	8:29	8:32	8.5/
212	_	<b>B</b> 8:03	8:25	8:40	8:48	9:00	_	9:12
212	=	E8:54	8:45 9:14	9:27	9:35	9:47	=	9:57
212	_		9:54 10:12	10:07	10:15	10:27	10:47	10:37
212 212	=	■10:36 ■11:00	10:54 11:18	11:07 11:31	11:15 11:39	11:27 11:50	11:53	11:37
212 212	_	11:30 12:01A	11:48 12:18A	12:01A 12:30	12:08A 12:37	12:19A 12:48	12:22A 12:51	_
212	_	1:01 2:01	1:18	1:30	1:37	1:48	1:51	_

#### **Special Notes**

#### Avisos especiales

- Board lines 217 or 222 to travel east of Highland Av after 7:00 pm on northbound trips terminating at Hawthorn & Orange Dr.
- Board on Hollywood Bl. & Sycamore Av after 7:00 pm on southbound trips originating at Hawthorn & Orange Dr.

#### **Holiday Schedule**

Sunday & holiday schedule will operate on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.

- Abordar las lineas 217 ó 222 para viajes que terminan en Hawthorn & Orange Dr. despues de 7:00 pm.
- Abordar sobre Hollywood Blvd y Sycamore Ave para viajes que inician en Hawthorn & Orange Dr. despues de 7:00 pm.

#### Horarios en los días feriados

El horario del domingo y dias festivos sera operado en New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day y Christmas Day

NextripNextripText "metro" and your intersection or stop number to 41411<br/>(example: metro Vignes & Cesar E Chavez or metro 1563).<br/>You can also visit metro.net or call 511 and say "Nextrip"Envíe un mensaje de texto con "Metro" y el número de su parada al<br/>41411. Nextrip le enviará un mensaje de texto con la próxima llegada<br/>de cada autobús en esa parada. También puede visitar metro.net o<br/>llamar al 511 y decir "Nextrip."

Saturday Effective Jun 24 2018

212 Southbound (Approximate Times)

North	nbound	d (Appr	roximate	e Times	5)			South	nboun	d (Appr	oximate	e Times	5)		
HAWTHORNE	INGLEWOOD		BALDWIN HILLS		MIRACLE MILE	Ноггумоор		Ноггумоор		MIRACLE MILE	BALDWIN HILLS		INGLEWOOD		HAWTHORNE
1	2	3		5	-7-	8	9	<b>9</b>	<b>-8</b>	6	5		3	2	1
Hawthorne/Lennox ( Station	Hillcrest & Manchester	Manchester & Market	Overhill & Slauson	Expo/La Brea Station	La Brea & Wilshire	Hawthorn & Orange	Hollywood/Vine Station	Hollywood & Vine	Hawthorn & Orange	La Brea & 8th	Expo/La Brea Station	Slauson & Overhill	Manchester & Market	Hillcrest & Manchester	Hawthorne/Lennox Station
_	5:31A 6:01	5:32A 6:02	5:44A 6:14	5:52A 6:23	6:04A 6:36	=	6:22A 6:55	5:31A 6:08	-	5:49A 6:27	6:02A 6:41	6:11A 6:50	6:23A 7:02	_	6:35A 7:15
6:38A	6:30	6:31 6:51	6:43 7:03	6:52 7:12	7:05 7:25		7:25 7:46	6:42 7:13	_	7:02 7:35	7:17 7:50	7:26 7:59	7:39 8:12	_	7:52 8:25
6:54 7:11	_	7:07 7:24	7:20	7:29 7:46	7:43 8:00	_	8:04 8:21	7:43 8:08	_	8:05 8:30	8:20 8:46	8:29 8:55	8:42 9:08	_	8:55 9:21
7:28 7:43	_	7:41 7:56	7:54 8:10	8:03 8:20	8:17 8:34	_	8:38 8:55	8:32 8:57	_	8:55 9:20	9:11 9:36	9:20 9:46	9:33 10:00	_	9:46 10:13
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8:33	Ξ.	8:46	9:00	9:10	9:25	Ξ.	9:49	10:03	=	10:29	10:25	10:56	11:10	=	11:23
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9:18 9:33	_	9:31 9:46	9:45 10:00	9:55 10:10	10:10 10:25	—	10:34 10:51	11:01 11:21	_	11:31 11:51	11:48 12:08P	11:58 12:18P	12:12P 12:32	_	12:25 12:45
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11:29 11:43	_	11:42 11:56	11:58 12:12P	12:09P 12:23	12:25 12:40	_	12:55 1:10	1:29 1:43	_	2:03 2:17	2:22 2:36	2:32 2:46	2:46 3:00	_	2:59 3:13
11:58 12:13P	_	12:11P	12:27	12:38	12:55	_	1:25	1:59	_	2:33	2:52	3:02	3:16	_	3:29
12:27	_	12:41	12:57	1:08	1:25	_	1:55	2:30	_	3:05	3:24	3:34	3:48	_	4:01
12:42	_	12:56	1:12	1:23	1:40	=	2:10	2:46	=	3:21	3:40	3:50 4:04	4:04	_	4:17
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1:42	_	1:56	2:12	2:23	2:40	_	3:10	3:38	_	4:14	4:33	4:42	4:55	_	5:08
2:13	_	2:27	2:43	2:54	3:10	_	3:40	3:58	_	4:24	4:43	5:03	5:16	_	5:29
2:28	_	2:42	2:58	3:09	3:25	_	3:55	4:09	_	4:46	5:05 5:15	5:14 5:24	5:27	_	5:40 5:50
2:58 3:13	_	3:12 3:27	3:28	3:39	3:55 4:10	_	4:25 4:40	4:31 4:43	_	5:08 5:19	5:26 5:37	5:35 5:46	5:48 5:59	_	6:01 6:12
3:28	_	3:42	3:58	4:09	4:25	—	4:55	4:55	-	5:30	5:47	5:56	6:09	_	6:22
3:43	_	4:13	4:13	4:24	4:56	_	5:26	5:08	_	5:52	6:08	6:17	6:30	_	6:43
4:16 4:34	_	4:30 4:48	4:46	4:57 5:15	5:13 5:31	—	5:43 6:01	5:30 5:44	_	6:04 6:17	6:20 6:33	6:29 6:42	6:41 6:54	_	6:54 7:07
4:54	_	5:08 5:30	5:24	5:35	5:51 6:13	_	6:21	6:03 6:21	_	6:36	6:52 7:09	7:01 7:18	7:13	_	7:26
5:40	_	5:54	6:09	6:19	6:35		7:05	6:39	_	7:12	7:27	7:36	7:48	_	8:00
6:06 6:32	_	6:20 6:46	6:35 7:01	6:45 7:11	7:01	A7:24P A7:48	_	6:59	_	7:32	8:07	7:56 8:16	8:08	_	8:20
7:00	_	7:13 7:42	7:27	7:36	7:51 8:19	A8:12 A8:40	_	_	■7:52P	8:12 8:30	8:27	8:36 8:53	8:48 9:05	_	9:00 9:17
8:00	_	8:12	8:25	8:34	8:48	A9:09	_	_	<b>B</b> 8:28	8:48	9:02	9:11	9:23	_	9:35
9:13	_	9:24	9:36	9:44	9:57	A10:17	_	_	<b>⊡</b> 9:35	9:53	10:07	10:15	10:27		10:39
9:47 10:12	_	9:58 10:23	10:10 10:35	10:18 10:43	10:31 10:54	▲10:49 ▲11:12	_	_	<b>B</b> 9:54 <b>B</b> 10:36	10:12 10:54	10:25 11:07	10:33 11:15	10:44 11:27	10:47P	11:39
	11:01P	11:02 12:04 A	11:13 12:14A	11:21	11:32	A11:49	-	_	<b>E</b> 11:00	11:18 11-48	11:31 12:01 A	11:39 12:08A	11:50 12:19A	11:53 12:22A	
_	1:01	1:02	1:12	1:19	1:30	A1:47	_	_	<b>1</b> 12:01A	12:18A	12:30	12:37	12:48	12:51	_
									B2:01	2:18	2:30	2:37	2:48	2:51	_

# Sunday and Holidays

Nortl	hbound	l (Appr	roximate	e Time	s)			Sout	hboun	d (Appr	oximate	Times	5)		
HAWTHORNE	INGLEWOOD		BALDWIN HILLS		MIRACLE MILE	НОГГАМООD		ноггумоор		MIRACLE MILE	BALDWIN HILLS		INGLEWOOD		HAWTHORNE
1	2	3	-6	5	-7-	8	•	<b>9</b>	-8-	-6-	5	6	3	2	-0
Hawthorne/Lennox Station	Hillcrest & Manchester	Manchester & Market	Overhill & Slauson	Expo/La Brea Station	La Brea & Wilshire	Hawthorn & Orange	Hollywood/Vine Station	Hollywood & Vine	Hawthorn & Orange	La Brea & 8th	Expo/La Brea Station	Slauson & Overhill	Manchester & Market	Hillcrest & Manchester	Hawthorne/Lennox Station
	5:30A 6:09 6:43 	5:31A 6:10 6:44 7:14 7:38 8:01 8:22 8:40 8:58 9:15 9:32 9:54 10:14 10:34 10:54 11:14 11:54 12:54 1:14 12:54 1:14 12:54 1:14 12:54 1:14 12:55 2:57 3:20 3:47 4:16 2:35 2:57 3:20 3:47 4:16 4:44 5:12 5:43 6:13 6:13 6:13 7:43 8:13 8:13 8:13 8:22 9:58 10:23 11:20 4:16 10:24 11:10 12:24 12:2	5:43A 6:22 6:56 7:27 7:51 8:14 8:35 8:53 9:11 9:28 9:45 10:07 10:27 10:48 11:08 11:28 12:08P 12:28 12:09 1:29 1:49 2:31 2:50 3:12 3:35 4:02 4:31 4:59 5:27 5:58 6:27 5:58 6:57 7:27 7:56 8:26 8:59 9:33 10:10 10:35 11:13 12:14A	5:51A 6:30 7:05 7:36 8:00 8:23 8:44 9:02 9:21 9:38 9:55 10:17 10:58 11:18 11:38 12:18P 12:38 12:18P 12:38 12:58 1:19 1:40 2:00 2:42 3:01 3:23 3:46 4:13 4:42 5:10 5:38 6:08 6:36 7:36 8:05 8:35 9:941 10:18 10:43 11:21 12:21A	6:03A 6:42 7:17 7:48 8:12 8:35 9:15 9:15 9:53 10:10 10:32 10:53 11:14 11:54 12:54 12:54 12:54 12:56 2:16 2:16 2:16 2:16 2:38 3:17 3:39 4:02 4:29 4:58 5:54 6:23 6:51 7:20 7:50 8:19 8:49 9:22 9:54 10:54 10:54 10:54 11:32		6:20A 7:00 7:37 8:08 8:32 8:55 9:18 9:37 9:59 10:17 10:35 10:58 11:19 11:40 11:59 12:20P 12:40 1:00 1:21 1:41 2:02 2:23 2:43 3:03 3:25 3:44 4:06 4:29 4:56 5:25 5:53 6:21 6:50 — — — — — — — — — —	5:43A 6:40 7:27 8:05 8:35 9:04 9:58 10:26 10:53 11:41 12:05P 12:52 1:15 1:39 2:03 2:27 2:48 3:11 3:34 3:55 4:15 4:33 4:51 5:34 5:54 5:34 5:56 6:17 7:04 — — — — —		6:00A 7:00 7:49 8:27 8:57 9:26 9:55 10:23 10:51 11:19 11:44 12:10P 12:35 12:59 1:24 1:48 2:12 2:36 3:00 3:21 3:44 4:07 4:29 4:49 5:07 5:25 5:46 6:27 6:27 6:27 6:27 6:27 6:27 6:27 6:2	6:13A 7:15 8:04 8:42 9:12 9:41 10:10 10:38 11:06 11:34 11:59 12:26P 12:51 1:15 1:40 2:04 2:28 2:52 3:16 3:37 4:00 4:23 4:45 5:05 5:23 5:41 6:22 6:42 7:02 7:48 8:18 8:48 9:28 10:07 10:25 11:07 10:25 11:07 10:25 11:07 10:25 11:07 11:31 12:01A 12:30 2:30	6:21A 7:24 8:14 8:52 9:22 9:51 10:20 10:48 11:16 11:44 12:09P 12:09P 12:09 1:50 2:14 2:38 3:02 3:26 3:47 4:10 4:33 4:55 5:15 5:33 5:50 6:11 6:31 6:51 7:11 7:56 8:26 8:56 9:36 10:33 11:15 12:08A 12:37 1:37 2:37	6:33A 7:38 8:28 9:06 9:36 10:04 10:33 11:01 11:30 11:58 12:23P 12:50 1:15 1:39 2:04 2:52 3:16 3:40 4:01 4:23 4:46 5:08 5:28 5:45 6:02 6:23 6:43 7:03 7:23 7:43 8:08 8:38 9:08 9:48 10:27 10:44 11:27 10:44 11:27 11:50 12:19A		6:45A 7:51 8:41 9:49 10:17 10:46 11:14 11:43 12:11P 12:36 1.52 2:17 2:41 3:05 3:29 3:53 4:14 4:36 4:59 5:21 5:58 6:15 6:36 6:56 7:16 7:35 7:55 8:20 8:50 9:20 10:00 10:39 11:39 - - -

Metro RapidBus Line 720



Image: Commerce Center         Image: Commercenter	MAP	NOTES	5					
<ul> <li>Good Samaritan Hospital</li> <li>Wiltern Theatre</li> <li>LA County Museum of Art</li> <li>Armand Hammer Museum</li> <li>Westwood Bl &amp; Wilshire Bl Metro 234, 734, Valley Exp, AV786; BBB1, 2, 3M, 8, 12; C6; Rapid 6; CE534, CE573; SC792, SC797; Note: Valley Exp stops at Westwood/ Lindbrook</li> <li>UCLA</li> <li>Veteran's Hospital</li> <li>4th St &amp; Wilshire Bl BBB2, 3M, 4, 5, 9; Rapid 3</li> <li>Third Street Promenade Metro 4, 534, 704, 720; BBB1, 7, 8; Rapid 7, Rapid 10</li> <li>Metro Customer Center</li> </ul> LEGEND Route of Line 720 Metro Rapid Stop Timepoint & Metro Rapid Stops Timepoint & Metro Rapid Stops Nummun Metro Rail Gonnecting Lines Rapid Connecting Lines Rapid Connecting Lines AV Antelope Valley Transit Authority BBB Santa Monica's Big Blue Bus C Culver CityBus CE LADOT Commuter Express M Montebello Bus Lines SC Santa Clarita Transit INSET 1 - DOWNTOWN LOS ANGELES Notero Rail Station Metro Rail Station Metro Rail Station Montebello Bus Lines SC Santa Clarita Transit INSET 1 - DOWNTOWN LOS ANGELES A Atameda St Central Av Alameda St Central Av Central A	1	Com	mer	ce Ce	nter			
<ul> <li>Wiltern Theatre</li> <li>LA County Museum of Art</li> <li>Armand Hammer Museum</li> <li>Westwood Bl &amp; Wilshire Bl Metro 234, 734, Valley Exp, AV786; BBB1, 2, 3M, 8, 12; C6; Rapid 6; CE534, CE573; SC792, SC797; Note: Valley Exp stops at Westwood/ Lindbrook</li> <li>UCLA</li> <li>UCLA</li> <li>Veteran's Hospital</li> <li>4th St &amp; Wilshire Bl BBB2, 3M, 4, 5, 9; Rapid 3</li> <li>Third Street Promenade Metro 4, 534, 704, 720; BBB1, 7, 8; Rapid 7, Rapid 10</li> <li>Metro Customer Center</li> <li>Metro Customer Center</li> <li>Metro Rapid Stop</li> <li>Timepoint &amp; Metro Rapid Stops</li> <li>Metro Rapid Stop Eastbound</li> <li>Metro Rapid Stop Eastbound<th>2</th><th>Good</th><th>d Sa</th><th>marit</th><th>an Hosp</th><th>oital</th><th></th><th></th></li></ul>	2	Good	d Sa	marit	an Hosp	oital		
<ul> <li>Internet Nucleic</li> <li>LA County Museum of Art</li> <li>Armand Hammer Museum</li> <li>Westwood Bl &amp; Wilshire Bl Metro 234, 734, Valley Exp, AV786; BBB1, 2, 3M, 8, 12; C6; Rapid 6; CE534, CE573; SC792, SC797; Note: Valley Exp stops at Westwood/ Lindbrook</li> <li>UCLA</li> <li>Veteran's Hospital</li> <li>4th St &amp; Wilshire Bl BBB2, 3M, 4, 5, 9; Rapid 3</li> <li>Third Street Promenade Metro 4, 534, 704, 720; BBB1, 7, 8; Rapid 7, Rapid 10</li> <li>Metro Customer Center</li> <li>Metro Customer Center</li> <li>Metro Rapid Stop</li> <li>Timepoint &amp; Metro Rapid Stops</li> <li>Metro Rapid Stop Eastbound</li> <li>Metro</li></ul>	3	Wilt	ern <sup>.</sup>	Theat	re .			
<ul> <li>Armand Hammer Museum</li> <li>Armand Hammer Museum</li> <li>Westwood Bl &amp; Wilshire Bl Metro 234, 734, Valley Exp, AV786; BBB1, 2, 3M, 8, 12; C6; Rapid 6; CE534, CE573; SC792, SC797; Note: Valley Exp stops at Westwood/ Lindbrook</li> <li>UCLA</li> <li>Veteran's Hospital</li> <li>4th St &amp; Wilshire Bl BBB2, 3M, 4, 5, 9; Rapid 3</li> <li>Third Street Promenade Metro 4, 534, 704, 720; BBB1, 7, 8; Rapid 7, Rapid 10</li> <li>Metro Customer Center</li> <li>Metro Customer Center</li> <li>Metro Rapid Stop</li> <li>Timepoint &amp; Metro Rapid Stops</li> <li>Metro Rapid Stop Westbound</li> <li>Metro Rapid Stop Eastbound</li> <li>Metro Culver CityBus</li> <li>C Santa Clarita Transit</li> <li>INSET 1 - DOWNTOWN LOS ANGELES</li> <li>Route of Line 720</li> <li>Stop</li> <li>Stop and Timepoint</li> <li>Metro Rail</li> </ul>	4	1	20111 20111	ALC MI		£ A		
<ul> <li>Armand Hammer Museum</li> <li>Westwood Bl &amp; Wilshire Bl Metro 234, 734, Valley Exp, AV786; BBB1, 2, 3M, 8, 12; C6; Rapid 6; CE534, CE573; SC792, SC797; Note: Valley Exp stops at Westwood/ Lindbrook</li> <li>UCLA</li> <li>Veteran's Hospital</li> <li>4th St &amp; Wilshire Bl BBB2, 3M, 4, 5, 9; Rapid 3</li> <li>Third Street Promenade Metro 4, 534, 704, 720; BBB1, 7, 8; Rapid 7, Rapid 10</li> <li>Metro Customer Center</li> </ul> LEGEND LEGEND Concerting Stop Timepoint & Metro Rapid Stops Timepoint & Metro Rapid Stop Stop Westbound Metro Rapid Stop Westbound Metro Rapid Stop Westbound Metro Rapid Stop Eastbound Metro Rapid Stop Eastbound Metro Rapid Stop Eastbound Metro Rapid Stop Santa Monica's Big Blue Bus C Culver CityBus CE LADOT Commuter Express M Montebello Bus Lines SC Santa Clarita Transit INSET 1 - DOWNTOWN LOS ANGELES Route of Line 720 Stop Stop and Timepoint Metro Rail Metro Rail Stop and Timepoint Metro Rail Metro Rail Note: Cilver CityBus CE LADOT Commuter Express M Montebello Bus Lines SC Santa Clarita Transit INSET 1 - DOWNTOWN LOS ANGELES Note: Stop Stop and Timepoint Metro Rail Station </th <th></th> <th></th> <th>Jour</th> <th></th> <th>Iseum C</th> <th>n Art</th> <th></th> <th></th>			Jour		Iseum C	n Art		
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SC 792, SC 797; Note: Valley Exp stops at Westwood/ Lindbrook UCLA UCLA Lindbrook Lindbrook Lindbrook Lindbrook Lindbrook Lindbrook UCLA UCLA Lindbrook Lindbrook UCLA Lindbrook Lindbrook Lindbrook Lindbrook Lindbrook Lindbrook Lindbrook Lindbrook Lindbrook Lindbrook Metro 4, 534, 704, 720; BBB1, 7, 8; Rapid 7, Rapid 10 Metro Rapid Stop Netro Rapid Stop Metro Rapid Stop Metro Rapid Stop Metro Rapid Stop Westbound Metro Rapid Stop Westbound Metro Rapid Stop Westbound Metro Rapid Stop Westbound Metro Rapid Stop Eastbound Metro Rapid Stop Eastbound Netro Rapid Stop Eastbound Metro Rail Station Montebello Bus Lines SC Santa Clarita Transit NSET 1 - DOWNTOWN LOS ANGELES Route of Line 720 Stop Stop Stop Stop and Timepoint Metro Rail NSET MAP 1 - DOWNTOWN LOS ANGELES Natameda St Central Av Kohler St Gladys Av		3M 8	0 23 } 12·	C6· R	anid 6.	CE534 (	CE573	UD1, 2,
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Image: State intervent of the state		BBB	2, 31	И, 4, 5	5, 9; Rap	oid 3		
Metro 4, 534, 704, 720; BBB1, 7, 8; Rapid 7, Rapid 10         Image: Constant State St	10	Thir	d Str	reet F	Promen	ade		
Hapid 10         Metro Customer Center         LEGEND         O       Metro Rapid Stop         Immunum       Metro Rapid Stop         Immunum       Metro Rail         O       Metro Rail Station         Immunum       Metro Rapid Stop Westbound         D       Metro Rapid Stop Eastbound         Immunum       Metro Rapid Stop Eastbound         Immunum       Metro Rapid Stop Eastbound         Immunum       Connecting Lines         Immunum       Rapid Connecting Lines         AV       Antelope Valley Transit Authority         BBB       Santa Monica's Big Blue Bus         C       Culver CityBus         CE       LADOT Commuter Express         M       Montebello Bus Lines         SC       Santa Clarita Transit         INSET 1 - DOWNTOWN LOS ANGELES       Route of Line 720         Stop       Stop and Timepoint         O       Metro Rail Station         Immunum       Metro Rail         INSET MAP 1 - DOWNTOWN LOS ANGELES       Immunum         Atameda St       Gladys Av		Metr	o 4,	534, 7	704, 720	; BBB1,	7, 8; R	apid 7,
	11	Rapi	d 10					
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Metro Rail         Metro Rapid Station         Metro Rapid Stop Westbound         Metro Rapid Stop Eastbound         Metro Rapid Connecting Lines         AV       Antelope Valley Transit Authority         BBB       Santa Monica's Big Blue Bus         C       Culver CityBus         CE       LADOT Commuter Express         M       Montebello Bus Lines         SC       Santa Clarita Transit         INSET 1 - DOWNTOWN LOS ANGELES       Route of Line 720         Stop       Stop         Stop       Stop and Timepoint         Metro Rail       Metro Rail         INSET MAP 1 - DOWNTOWN LOS ANGELES       IN         Alameda St       Gladys Av	Ģ	$\diamond$	lir	nepo	unt & №	letro R	apid S	tops
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Rapid Connecting Lines         AV       Antelope Valley Transit Authority         BBB       Santa Monica's Big Blue Bus         C       Culver CityBus         CE       LADOT Commuter Express         M       Montebello Bus Lines         SC       Santa Clarita Transit         INSET 1 - DOWNTOWN LOS ANGELES       Route of Line 720         Stop       Stop         Stop       Stop and Timepoint         O       Metro Rail Station         INSET MAP 1 - DOWNTOWN LOS ANGELES          Kohler St       Gladys Av	#	##			ting Li	top Eas	stbour	IU
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SANTA Monica	WESTWOOD	LOS ANGELES				COMMERCE	COMMERCE	LOS ANGELES				WESTWOOD	SANTA Monica
Broadway & 3rd St Promenade	Wilshire & Westwood	Wilshire & La Brea	Wilshire / Vermont Station	óth & Main	Whittier & Soto	Commerce Center	Commerce Center	Whittier & Soto	5th & Main	Wilshire / Vermont Station	Wilshire & La Brea	Wilshire & Westwood	Santa Monica & 3rd St Promenade
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### Sunday and Holiday Shedule

# 720

Eastb	ound (A	oproximate	e Times)				Westb	ound (/	Approximat	e Times)			
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8:43 8:55	9:08 9:20	9:29 9:41	9:41 9:53	9:54 10:06	10:01	10:16	3:38	3:56	4:05 <b>1</b> 4:15	4:21 4:31	4:34 4:44	4:58 5:08	5:20 5:30
9:07 9:20	9:32 9:44	9:53 10:05	10:05	10:18 10:29	10:25	10:40	3:59	4:17	4:26 14:36	4:41 4:51	4:54 5:04	5:17 5:27	5:39 5:49
9:44	10:08	10:17	10:28	10:51	11:10	11:02	4:17	4:57	€4:48 €4:56 5:07	5:11	5:24	5:37	6:09 6:20
10:09 10:22	10:33 10:45	10:53 11:05	11:03 11:15	11:15 11:27	11:34	11:48	5:04	5:22	■5:18 5:30	5:33 5:45	5:46 5:58	6:09 6:21	6:31 6:43
10:36 10:50	10:58 11:11	11:18 11:31	11:28 11:41	11:40 11:53		■12:10A	5:32	5:50	■5:44 5:58	5:59 6:13	6:11 6:25	6:34 6:46	6:55 7:06
11:03	11:24 11:40 11:56	11:44 11:59 12:144	12:09A 12:24	12:06A 12:21 12:36	12:28	12:42	5:47 6:04 6:20	6:05 6:21 6:37	6:13 6:29	6:28 6:43 6:58	6:40 6:55 7-10	7:01 7:16 7:31	7:21 7:36 7:51
11:52 12:13A	12:11A 12:31	12:29 12:49	12:39	12:51	12:58	<b>1</b> :08	6:36 6:51	6:52 7:07	6:59 7:14	7:13 7:28	7:25	7:46 8:01	8:06 8:21
12:33 12:53	12:51 1:11	1:09 1:29	1:19	1:31 1:49	1:38	1:51	7:06 7:21	7:22 7:37	7:29	7:43 7:58	7:55 8:10	8:15 8:30	8:35 8:49
1:13	1:31 1:51	1:49 2:09	1:58 2:18	2:09 2:29	_	_	7:36	7:52 8:07 9:22	7:59 8:14 9:29	8:13 8:28 8:43	8:25 8:40 8:55	8:45 9:00	9:03 9:18 9:22
							8:21 8:36	8:37 8:52	8:44 8:59	8:58 9:13	9:00 9:25	9:30 9:45	9:48 10:03
							8:52 9:08	9:07 9:23	9:14 9:30	9:28 9:43	9:40 9:55	10:00 10:15	10:17 10:31
							9:24	9:39 9:54	9:46 10:01	9:59 10:14	10:10 10:25	10:30	10:46 11:00
							7:55 10:15 10:35	10:09	10:16	10:29	10:40	10:59	11:14 11:32 11:51
							10:55 11:16	11:09 11:30	11:16 11:37	11:28 11:48	11:39 11:59	11:56 12:15A	12:10A 12:29
							11:38 11:58	11:51 12:11A	11:58 12:18A	12:09A 12:29	12:19A 12:39	12:35 12:55	12:49 1:09

#### Sunday & Holiday Schedules

Sunday & 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

Avisos especiales

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 Trip begins at Wilshire & Barrington approximately 7 minutes earlier.

- Trip ends at 6<sup>th</sup> & Kohler (Central) approximately 3 4 minutes
- Irip ends at 6<sup>th</sup> & Kohler (Central) approximately 3 4 minutes later.
- Trip begins at Central & 6<sup>th</sup> approximately 5 10 minutes earlier.
- Trip ends at Whittier & Goodrich and does not serve the Whittier & Hoefner stop.
- Viaje comienza en Wilshire y Barrington aproximadamente 7 minutos antes.
   Viaje termina en 4<sup>th</sup> y Kehler (Central) aproximadamente 2 4 minutes mas
- Viaje termina en 6<sup>th</sup> y Kohler (Central) aproximadamente 3 4 minutos mas tarde
- Viaje comienza en Central y 6<sup>th</sup> aproximadamente 5 10 minutos mas
- In the contents of contents y or approximate and the content of the
- oximately 3 4 minutes tarde. ely 5 - 10 minutes earlier Viaje comin

LADOT DASH – Fairfax Route



#### TRANSFERS/TRANSBORDOS

You can transfer free from a northbound DASH Fairfax bus to an eastbound DASH Fairfax bus at the stop marked **I**. Ask your operator for a free DASH to DASH transfer when you board at a stop on the 3rd St., Hauser Blvd, 6th St., La Brea Ave, Wilshire Blvd, Fairfax Ave. loop./Se puede transbordar gratis de un autobús DASH Fairfax viajando del norte a otro DASH Fairfax que viaje hacia oeste el la parada identificada con el **T**. Para hacer la vuelta, pregunte al conductor por un transborde gratis de DASH a DASH cuando va abordar el autobús en las paradas localizadas en la calle 3rd, Hauser Blvd, la calle 6th, la avenida La Brea, Wilshire Blvd y la Avenida Fairfax.



(213, 310, 323 or/o 818) 808-2273 www.ladottransit.com



(Punto Clave de Horario)

■ Free Transfer Point to eastbound DASH Fairfax (El punto de Transbordo gratis al este DASH Fairfax)

**AUTOBÚS** 

Note: Schedules are subject

WESTBOUND TO CEDARS-SINAI HACIA EL OESTE A CEDARS-SINAI						EASTBOUND TO WILSHIRE BOULEVARD HACIA EL OESTE A WILSHIRE BOULEVARD					
	La Brea & Wilshire	Fairfax & 3rd	Melrose & Fairfax	La Cienega & Melrose	Arrives/Llega 3rd & Sherbourne		Leaves/Sale Gracie Allen & Sherbourne	La Cienega & Melrose	Fairfax & Melrose	3rd & Fairfax	La Brea & Wilshire
	•	D	С	B	Α		A	B	С	D	B
MONDAY-FRIDAY/LUNES-VIERNES						MONDAY-FRIDAY/LUNES-VIERNES					
FIRST BUS/ EL PRIMERO AUTOBÚS	7:00am	7:08	7:12	7:15	7:20	FIRST BUS/ EL PRIMERO AUTOBÚS	7:00am	7:07	7:13	7:20	7:30
then every/ entonces cada	:30	:38	:42	:45	:50	then every/ entonces cada	:30	:37	:43	:50	:00
minutes until/ minutos hasta	:00	:08	:12	:15	:20	minutes until/ minutos hasta	:00	:07	:13	:20	:30
LAST BUS/ EL ÚLTIMO AUTOBÚS	6:30pm	6:38	6:42	6:45	6:50	LAST BUS/ EL ÚLTIMO AUTOBÚS	6:30pm	6:37	6:43	6:50	7:00
SATURDAY/SÁBADO					SATURDAY/SÁBADO						
FIRST BUS/ EL PRIMERO AUTOBÚS	9:00am	9:08	9:12	9:15	9:20	FIRST BUS/ EL PRIMERO AUTOBÚS	9:00am	9:07	9:13	9:20	9:30
then every/ entonces cada	:30	:38	:42	:45	:50	then every/ entonces cada	:30	:37	:43	:50	:00
minutes until/ minutos hasta	:00	:08	:12	:15	:20	minutes until/ minutos hasta	:00	:07	:13	:20	:30
LAST BUS/ EL ÚLTIMO	6:30pm	6:38	6:42	6:45	6:50	LAST BUS/ EL ÚLTIMO	6:30pm	6:37	6:43	6:50	7:00

**AUTOBÚS** 

to traffic, weather and other conditions. Please be patient as these conditions are out of the control of the driver and LADOT. Also remember to allow sufficient time to make transfers to other services./ Nota: Los horarios están sujetos al tráfico, el clima y a otras condiciones. Favor de ser paciente porque dichas condiciones están fuera del control del conductor y de LADOT. Recuerde el darse suficiente tiempo para hacer transbordes a otros

servicios.

LADOT complies with all federal requirements under Title VI, which prohibits discrimination on the basis of race, color or national origin. Any person who believes that he or she has been subjected to unlawful discrimination under Title VI may file a complaint by visiting the website at ladottransit.com, by picking up a complaint form at the LADOT Transit Store at 201 Los Angeles St., Space 18B, Los Angeles, CA 90012, by contacting the Title VI Liaison at ladot.titlevi@ lacity.org, or by calling 213-473-7743./ LADOT cumple con todos los requisitos federales estipulados por el Título VI, que prohíbe la discriminación en base de raza, color ó nacionalidad. Toda persona que considere que ha sido victima de un acto discriminatorio del Título VI puede descargar un formulario de quejas en el sitio de web ladottransit.com o puede recoger un formulario en la LADOT Transit Store en 201 N. Los Angeles St. Space 18B, Los Angeles, CA 90012, también puede hacerlo por correo electrónico a ladot.titlevi@lacity.org ó pueden llamar al 213.473.7743



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Antelope Valley Transit Authority Route 786



Metro Purple Line Subway Extension Project Fact Sheet

metro.net/purple

# Next stop: more subway.

# PURPLE LINE EXTENSION TRANSIT PROJECT

Section 1 Fact Sheet – Station Locations



Section 1 of the Purple Line Extension Transit Project includes three new stations at Wilshire/La Brea, Wilshire/Fairfax and Wilshire/La Cienega.

## Wilshire/La Brea Station

The Wilshire/La Brea station box is located under Wilshire BI from just east of Orange Dr west to Detroit St. The station entrance is planned for the Metro-owned property on the northwest corner of Wilshire BI and La Brea Av. Construction staging is occuring at this property, as well as the site on the southwest corner. This station will serve as an eastern gateway to the Miracle Mile area and provide easy north-south connections to La Brea Av.



Rendering above shows how the Wilshire/La Brea Station might look.



# Wilshire/Fairfax Station

The Wilshire/Fairfax station box is located under Wilshire Bl extending from Ogden Dr to west of Fairfax Av. A station entrance is planned for the southeast corner of Wilshire Bl and Orange Grove Av. Metro is in discussions with the Los Angeles County Museum of Art (LACMA) about adding another entrance that LACMA would fund. It would be located directly across the street on the north side of Wilshire Bl. Placing the entrance(s) on the east side of Fairfax Av will enhance accessibility to the many cultural institutions in this area. Having two entrances will reduce the number of pedestrians crossing at street level, while still facilitating bus connections. Construction staging is taking place on the south side of Wilshire BI on the block between Ogden Dr and Orange Grove Av. A second construction staging site is located on the northwest corner of Wilshire BI and Fairfax Av, adjacent to Johnie's Coffee Shop. Johnie's will be preserved and remain after construction.



Rendering above shows how the Wilshire/Fairfax Station might look.



# Wilshire/La Cienega Station

The Wilshire/La Cienega station box is located under Wilshire Bl, stretching from Tower Dr west to La Cienega Bl. The station entrance is planned for the northeast corner of Wilshire and La Cienega Boulevards, a property that is also used for construction staging. The other construction staging site is located on the northwest corner of Wilshire Bl and Gale Dr. Given its location on a highly utilized north/south thoroughfare, the station will create seamless links to travel destinations along and near La Cienega Bl, such as Restaurant Row, Beverly Center and Cedars-Sinai Medical Center.





Rendering above shows how the Wilshire/La Cienega Station might look.

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📢 323.466.3876 x2 Español

#### 323.466.3876 x3

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Հայերէն	ภาษาไท
Tiếng Việt	ោងអផ្អ

APPENDIX C

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

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

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

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

### I. SCREENING CRITERIA FOR POLICY ANALYSIS

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

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

X Yes 📃 No

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

Yes X No

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

X Yes 📃 No

### **II. PLAN CONSISTENCY ANALYSIS**

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

These questions address potential conflict with:



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

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

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

#### Mobility Plan 2035 Street Designations and Standard Roadway Dimensions

A.1 Does the project include additions or new construction along a street designated as a Boulevard I, and II, and/or Avenue I, II, or III on property zoned for R3 or less restrictive zone? X Yes No Project Site Zoned [Q]C4-2-CDO and [Q]C2-1-CDO

A.2 If **A.1 is yes**, is the project required to make additional dedications or improvements to the Public Right of Way as demonstrated by the street designation. X Yes No N/A Cochran Avenue - 3' ROW Dedication; No Street Widening Required

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

X Yes No N/A

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

A.4 If the answer to **A.3. is NO**, is the project applicant asking to waive from the dedication standards?

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

Frontage 1 Existing PROW'/Curb'	: Existing <u>50'/40'</u>	_Required50'/35'	Proposed <u>50'/40'</u>
(Wilshire Boulevard)	Sidewalk: 10'	Sidewalk: 15'	Sidewalk: 10'
Frontage 2 Existing PROW'/Curb'	: Existing <u>30'/20'</u>	_Required <u>33'/20'</u>	Proposed <u>33'/20'</u>
(Cochran Avenue)	Sidewalk: 10'	Sidewalk: 13'	Sidewalk: 13'
Frontage 3 Existing PROW'/Curb'	: Existing <u>30'/20'</u>	_Required30'/18'	Proposed <u>30'/20'</u>
(Cloverdale Avenue)	Sidewalk: 10'	Sidewalk: 12'	Sidewalk: 10'
Frontage 4 Existing PROW'/Curb	: EXISTING	Doguined	Proposed



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

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

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

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

To see the location of the above networks, see Transportation Assessment Support Map.<sup>1</sup>

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

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

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

#### **B.1 Project-Initiated Changes to the PROW Dimensions**

These questions address potential conflict with:

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

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

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

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

Mobility Plan 2035 Street Designations and Standard Roadway Dimensions

<sup>&</sup>lt;sup>1</sup> LADOT Transportation Assessment Support Map <u>https://arcg.is/fubbD</u>



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

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

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

Yes X No

#### **B.2 Driveway Access**

These questions address potential conflict with:

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

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

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

#### Site Planning Best Practices:

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

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

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



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

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

#### **Impact Analysis**

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

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

To see the location of the above networks, see Transportation Assessment Support Map.<sup>3</sup>

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

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

Yes No X N/A

(Changes to public right of way and site driveways do not conflict with LADOT Driveway Design Guidelines)

<sup>&</sup>lt;sup>2</sup> for a project frontage that exceeds 400 feet along an Avenue or Boulevard, the incremental additional driveway above 2 is more than 1 driveway for every 400 additional feet.

<sup>&</sup>lt;sup>3</sup> LADOT Transportation Assessment Support Map <u>https://arcg.is/fubbD</u>



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

Yes No X N/A

#### (Project driveways do not conflict with LADOT Driveway Design Guidelines)

If either of the answers to either **B.2.1 or B.2.2 are YES**, the project may conflict with the Mobility Plan 2035, and therefore conflict with a plan that is adopted to protect the environment. If either of the answers to both **B.2.1. or B.2.2. are NO**, then the project would not be shown to conflict with plans or policies that govern the Public Right-of-Way.

#### **C. Network Access**

#### C. 1 Alley, Street and Stairway Access

These questions address potential conflict with:

**Mobility Plan Policy 3.9** Increased Network Access: Discourage the vacation of public rights-ofway.

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

Yes X No

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

Yes No X N/A

#### C.2 New Cul-de-sacs

These questions address potential conflict with:

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

C.2.1 Does the project create a cul-de-sac or is the project located adjacent to an existing cul-de-sac? Yes X No

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

Yes No X N/A

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



#### D. Parking Supply and Transportation Demand Management

These questions address potential conflict with:

*Mobility Plan 2035 Policy 3.8* – Bicycle Parking, Provide bicyclists with convenient, secure and well maintained bicycle parking facilities.

**Mobility Plan 2035 Policy 4.8** – Transportation Demand Management Strategies. Encourage greater utilization of Transportation Demand Management Strategies to reduce dependence on single-occupancy vehicles.

*Mobility Plan 2035 Policy 4.13* – Parking and Land Use Management: Balance on-street and offstreet parking supply with other transportation and land use objectives.

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

Yes X No

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

Yes No X N/A

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

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

X Yes No

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



D.4. Does the Project include more than 25,000 square feet of gross floor area construction of new non-residential gross floor? (Proposed project includes approximately 12,821 sq. ft. of ground floor commercial area)

Yes X No

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

Yes No X N/A

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

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

#### E. Consistency with Regional Plans

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

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

X Yes 📃 No

E.2 If the Answer to E.1 is YES, does the Project or Plan result in a significant VMT impact? Yes X No N/A

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

Yes No X N/A

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

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



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

### References

BOE Street Standard Dimensions S-470-1 http://eng2.lacity.org/techdocs/stdplans/s-400/S-470-1 20151021 150849.pdf

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

LADOT Transportation Assessment Support Map <a href="https://arcg.is/fubbD">https://arcg.is/fubbD</a>

Mobility Plan 2035 <u>https://planning.lacity.org/odocument/523f2a95-9d72-41d7-aba5-1972f84c1d36/Mobility\_Plan\_2035.pdf</u>

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

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

The <u>City of Los Angeles Community Plans</u>, 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 <u>Vision Zero</u> is to eliminate traffic-related deaths in Los Angeles by 2025 through a number of strategies, including modifying the design of streets to increase the safety of vulnerable road users. Extensive crash data analysis is conducted on an ongoing basis to prioritize intersections and corridors for implementation of projects that will have the greatest effect on overall fatality reduction. The City designs and deploys <u>Vision Zero Corridor Plans</u> 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 <u>Citywide Design Guidelines</u> (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 <u>Transportation Demand Management (TDM) Ordinance (LA Municipal Code 12.26.J)</u> 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 <u>LAMC Section 12.37 (Waivers of Dedication and Improvement)</u> 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) <u>Street Standard Dimensions S-470-1</u> provides the specific street widths and public right of way dimensions associated with the City's street standards.

LADOT VMT CALCULATOR THRESHOLD T-2.1 "SCREENING" WORKSHEET

APPENDIX D

# **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**



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
-		ksf 🚽
Retail   General Retail	9.845	ksf
Office   General Office	5.738	ksf
(custom) Staples   Retail/Non-Retail	Retail	LU type
(custom) Staples   Residents	0	Person
(custom) Staples   Employees	23	Person
(custom) Staples   Daily	1973	Trips
(custom) Staples   HBW-Attraction Split	6	Percent
(custom) Staples   HBO-Attraction Split	50	Percent
(custom) Staples   NHB-Attraction Split	22	Percent
(custom) Staples   HBW-Production Split	0	Percent
(custom) Staples   HBO-Production Split	0	Percent
(custom) Staples   NHB-Production Split	22	Percent

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	
<b>•</b>		ksf 🛛	
Housing   Multi-Family	310	DU	
Housing   Affordable Housing - Family	38	DU	
Retail   General Retail	7.378	ksf	
Retail High-Turnover Sit-Down Restaurant	4.443	ksf	
(custom) Cafe   Retail/Non-Retail	Retail	LU type	
(custom) Cafe   Residents	0	Person	
(custom) Cafe   Employees	4	Person	
(custom) Cafe   Daily	315	Trips	
(custom) Cafe   HBW-Attraction Split	6	Percent	
(custom) Cafe   HBO-Attraction Split	50	Percent	
(custom) Cafe   NHB-Attraction Split	22	Percent	
(custom) Cafe   HBW-Production Split	0	Percent	
(custom) Cafe   HBO-Production Split	0	Percent	-

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

### **Project Screening Summary**

Existing Land Use	Propos Proje	ed ct
1,766	2,09	6
Daily Vehicle Trips	Daily Vehicl	e Trips
<b>11,550</b> Daily VMT	<b>13,00</b> Daily VI	<b>)1</b> ит
Tier 1 Scree	ning Criteria	
Project will have less reside to existing residential units mile of a fixed-rail station.	ntial units compa & is within one-h	red alf
Tier 2 Screen	ing criteria	
The net increase in daily tri	ps < 250 trips	330 Net Daily Trips
The net increase in daily VN	<b>/</b> T ≤ 0	<b>1,451</b> Net Daily VMT
The proposed project consi land uses ≤ 50,000 square fe	sts of only retail eet total.	12.821 <del>-11.821-</del> ksf
The proposed project	is required to	perform



NOTE: EXISTING SITE USE VMT AND TRIP GENERATION CALCULATIONS DO NOT INCLUDE ENTITLED BUT CURRENTLY VACANT 800 SQ. FT. RETAIL AREA

APPENDIX E

LADOT VMT CALCULATOR THRESHOLD T-2.1 DAILY TRIP AND VMT CALCULATIONS

Without "Project Feature" and/or TDM Strategy Adjustments

# **CITY OF LOS ANGELES VMT CALCULATOR Version 1.3**



## **Project Information**



Proposed Project Land Use Type	Value	Unit
Housing   Multi-Family	310	DU
Housing   Affordable Housing - Family	38	DU
Retail   General Retail	7.378	ksf
Retail   High-Turnover Sit-Down Restaurant	4.443	ksf
(custom) Cafe   Retail/Non-Retail	Retail	LU type
(custom) Cafe   Residents	0	Person
(custom) Cafe   Employees	4	Person
(custom) Cafe   Daily	315	Trips
(custom) Cafe   HBW-Attraction Split	6	Percent
(custom) Cafe   HBO-Attraction Split	50	Percent
(custom) Cafe   NHB-Attraction Split	22	Percent
(custom) Cafe   HBW-Production Split	0	Percent
(custom) Cafe   HBO-Production Split	0	Percent
(custom) Cafe   NHB-Production Split	22	Percent

## **TDM Strategies**



## **Analysis Results**

2,096 Daily Vehicle Trips 13,001 Daily VMT 4.6 Houseshold VMT per Capita
Daily Vehicle Trips <b>13,001</b> Daily VMT <b>4.6</b> Houseshold VMT per Capita
<b>13,001</b> Daily VMT <b>4.6</b> Houseshold VMT per Capita
Daily VMT <b>4.6</b> Houseshold VMT per Capita
<b>4.6</b> Houseshold VMT per Capita
Houseshold VMT per Capita
N/A
Work VMT
MT Impact?
Household: No
Threshold = 6.0
15% Below APC
Work: N/A
Threshold = 7.6

NOTE: EXISTING SITE USE VMT AND TRIP GENERATION CALCULATIONS DO NOT INCLUDE ENTITLED BUT CURRENTLY VACANT 800 SQ. FT. RETAIL AREA

Measuring the Miles

# Report 1: Project & Analysis Overview

Project Name: Mirabel Mixed-Use (688 S. Cochran Aver Project Scenario: Project VMT Impact Analysis (No TDM) Project Address: 688 S COCHRAN AVE, 90036

Date: April 18, 2022



	Project Informa	tion	
Land	Use Type	Value	Units
	Single Family	0	DU
	Multi Family	310	DU
Housing	Townhouse	0	DU
_	Hotel	0	Rooms
	Motel	0	Rooms
	Family	38	DU
Afferdable Housing	Senior	0	DU
Affordable Housing	Special Needs	0	DU
	Permanent Supportive	0	DU
	General Retail	7.378	ksf
	Furniture Store	0.000	ksf
	Pharmacy/Drugstore	0.000	ksf
	Supermarket	0.000	ksf
	Bank	0.000	ksf
	Health Club	0.000	ksf
Deteil	High-Turnover Sit-Down	4.442	l. ef
Retail	Restaurant	4.443	KST
	Fast-Food Restaurant	0.000	ksf
	Quality Restaurant	0.000	ksf
	Auto Repair	0.000	ksf
	Home Improvement	0.000	ksf
	Free-Standing Discount	0.000	ksf
	Movie Theater	0	Seats
Office	General Office	0.000	ksf
Office	Medical Office	0.000	ksf
	Light Industrial	0.000	ksf
Industrial	Manufacturing	0.000	ksf
	Warehousing/Self-Storage	0.000	ksf
	University	0	Students
	High School	0	Students
School	Middle School	0	Students
	Elementary	0	Students
	Private School (K-12)	0	Students
Other	Cafe	315	Trips

#### Project and Analysis Overview

Report 1: Project & Analysis Overview

Date: April 18, 2022

Project Name: Mirabel Mixed-Use (688 S. Cochran Aver Project Scenario: Project VMT Impact Analysis (No TDM) Project Address: 688 S COCHRAN AVE, 90036



	Analysis Res	sults	
	Total Employees:	37	
	Total Population:	818	
Propose	ed Project	With Mi	tigation
2,096 Daily Vehicle Trips 2,096 Daily Vehic			
13,001	Daily VMT	13,001	Daily VMT
Household VMT			Household VMT per
4.6	per Capita	4.6	Capita
	Work VMT		Work VMT per
N/A	per Employee	N/A	Employee
	Significant VMT	Impact?	
	APC: Centr	al	
	Impact Threshold: 15% Belo	ow APC Average	
	Household = 6	5.0	
	Work = 7.6		
Propose	ed Project	With Mi	itigation
VMT Threshold	Impact	VMT Threshold	Impact
Household > 6.0	No	Household > 6.0	No
Work > 7.6	N/A	Work > 7.6	N/A

**Report 2: TDM Inputs** 

### Date: April 18, 2022

Project Name: Mirabel Mixed-Use (688 S. Cochran Ave Project Scenario: Project VMT Impact Analysis (No TDM) Project Address: 688 S COCHRAN AVE, 90036



Stra	Strategy Type Description Proposed Project Mitigations				
	Paduca narking supply	City code parking provision (spaces)	0	0	
		Actual parking provision (spaces)	0	0	
	Unbundle parking	Monthly cost for parking (\$)	\$0	\$0	
Parking	Parking cash-out	Employees eligible (%)	0%	0%	
	Price workplace	Daily parking charge (\$)	\$0.00	\$0.00	
	parking	Employees subject to priced parking (%)	0%	0%	
	Residential area parking permits	Cost of annual permit (\$)	\$0	\$0	
	(	cont. on following page	:)		

### **Report 2: TDM Inputs**

Date: April 18, 2022 Project Name: Mirabel Mixed-Use (688 S. Cochran Ave Project Scenario: Project VMT Impact Analysis (No TDM) Project Address: 688 S COCHRAN AVE, 90036



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

# Report 2: TDM Inputs

Date: April 18, 2022 Project Name: Mirabel Mixed-Use (688 S. Cochran Ave Project Scenario: Project VMT Impact Analysis (No TDM) Project Address: 688 S COCHRAN AVE, 90036



TDM Strategy Inputs, Cont.				
Strate	gy Туре	Description	Proposed Project	Mitigations
	Required commute trip reduction program	Employees participating (%)	0%	0%
	Alternative Work Schedules and	Employees participating (%)	0%	0%
	Telecommute	Type of program	0	0
Commute Trip Reductions		Degree of implementation (low, medium, high)	0	0
	Employer sponsored vanpool or shuttle	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 (Low, Medium, High)	0	0	

#### Date: April 18, 2022

## Report 2: TDM Inputs

Project Name: Mirabel Mixed-Use (688 S. Cochran Ave Project Scenario: Project VMT Impact Analysis (No TDM) Project Address: 688 S COCHRAN AVE, 90036



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

**Report 3: TDM Outputs** 

#### Date: April 18, 2022

Project Name: Mirabel Mixed-Use (688 S. Cochran Avenue) Project Scenario: Project VMT Impact Analysis (No TDM) Project Address: 688 S COCHRAN AVE, 90036



TDM Adjustments by Trip Purpose & Strategy														
	Place type: Compact Infill													
		Ноте Ва	ased Work	Home B	ased Work	Ноте Во	ased Other	Home B	ased Other	Non-Home	Based Other	Non-Home	Based Other	
		Proposed	<u>uction</u> Mitigated	<u>Attr</u>	action Mitigated	Proposed	<u>luction</u> Mitigated	<u>Attr</u>	<u>action</u> Mitigated	Proc	Nitigated	<u>Attr</u>	<u>action</u> Mitigated	_ Source
		FTOPOSEU	Witigated	FTOpOseu	Witigated	FTOpOSed	wiitigateu	Proposed	wiitigateu	Proposed	wiitigateu	FTOposed	wittigated	
	Reduce parking supply	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	_
	Unbundle parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy
Parking	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix, Parking sections
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1 - 5
	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%	
	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy
Transit	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix, Transit sections 1 - 3
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education &	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
Encouragement	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Commute Trip Reductions	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
Neudelions	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%	
	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
Shared Mobility Bike share 0.00% 0.	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	Appendix, Shared		
	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%	Mobility sections 1 - 3

Date: April 18, 2022

**Report 3: TDM Outputs** 

Project Name: Mirabel Mixed-Use (688 S. Cochran Avenue) Project Scenario: Project VMT Impact Analysis (No TDM) Project Address: 688 S COCHRAN AVE, 90036



				TDM Ad	ljustment	s by Trip	Purpose	& Strateg	y, Cont.					
						Place type	: Compact	Infill						
		Ноте Ва	ased Work	Ноте Во	ased Work	Ноте Во	ased Other	Ноте Во	ased Other	Non-Home	Based Other	Non-Home	Based Other	
		Prod	luction	Attr	action	Prod	luction	Attr	action	Proc	luction	Attr	action	Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
	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
Bicycle Infrastructure	Include Bike parking per LAMC	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	sections 1 - 3
Neighborhood	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,
Enhancement	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%	Neighborhood Enhancement

Final Combined & Maximum TDM Effect												
	Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
MAX. TDM EFFECT	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

= Minimum (X%, 1-[(1-A)*(1-B)])						
where X%=						
PLACE	urban	75%				
ТҮРЕ	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.

> Report 3: TDM Outputs 2 of 2

## Report 4: MXD Methodology

Project Name: Mirabel Mixed-Use (688 S. Cochran Ave Project Scenario: Project VMT Impact Analysis (No TDM) Project Address: 688 S COCHRAN AVE, 90036

Date: April 18, 2022



MXD Methodology - Project Without TDM								
	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT		
Home Based Work Production	310	-24.5%	234	6.5	2,015	1,521		
Home Based Other Production	859	-46.1%	463	4.8	4,123	2,222		
Non-Home Based Other Production	621	-6.4%	581	7.1	4,409	4,125		
Home-Based Work Attraction	66	-43.9%	37	7.6	502	281		
Home-Based Other Attraction	912	-46.5%	488	6.4	5,837	3,123		
Non-Home Based Other Attraction	317	-7.6%	293	5.9	1,870	1,729		

### MXD Methodology with TDM Measures

		Proposed Project		Project with Mitigation Measures			
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT	
Home Based Work Production	0.0%	234	1,521		234	1,521	
Home Based Other Production	0.0%	463	2,222	0.0%	463	2,222	
Non-Home Based Other Production	0.0%	581	4,125	0.0%	581	4,125	
Home-Based Work Attraction	0.0%	37	281	0.0%	37	281	
Home-Based Other Attraction	0.0%	488	3,123	0.0%	488	3,123	
Non-Home Based Other Attraction	0.0%	293	1,729	0.0%	293	1,729	

MXD VMT Methodology Per Capita & Per Employee									
	Total Population: 818								
	Total Employees:	37							
	APC: Central								
	Proposed Project	Project with Mitigation Measures							
Total Home Based Production VMT	3,743	3,743							
Total Home Based Work Attraction VMT	281	281							
Total Home Based VMT Per Capita	4.6	4.6							
Total Work Based VMT Per Employee	N/A	N/A							

With "Project Feature" and/or TDM Strategy Adjustments

# **CITY OF LOS ANGELES VMT CALCULATOR Version 1.3**



## **Project Information**



Proposed Project Land Use Ty	pe Value	Unit
Housing   Multi-Family	310	DU
Housing   Affordable Housing - Family	38	DU
Retail   General Retail	7.378	ksf
Retail   High-Turnover Sit-Down Resta	urant 4.443	ksf
(custom) Cafe   Retail/Non-Retail	Retail	LU type
(custom) Cafe   Residents	0	Person
(custom) Cafe   Employees	4	Person
(custom) Cafe   Daily	315	Trips
(custom) Cafe   HBW-Attraction Split	6	Percent
(custom) Cafe   HBO-Attraction Split	50	Percent
(custom) Cafe   NHB-Attraction Split	22	Percent
(custom) Cafe   HBW-Production Split	0	Percent
(custom) Cafe   HBO-Production Split	0	Percent
(custom) Cafe   NHB-Production Split	22	Percent

## **TDM Strategies**

Select each section to show individual strategies



## **Analysis Results**

Proposed Project	With Mitigation
1.811	1.811
Daily Vehicle Trips	Daily Vehicle Trips
11,234	11,234
Daily VMT	Daily VMT
4.0	4.0
Houseshold VMT per Capita	Houseshold VMT per Capita
N/A	N/A
Work VMT	Work VMT
Significant \	/MT Impact?
	•
Household: No	Household: No
Threshold = $6.0$	Threshold = 6.0
15% BEIOW APC	15% BEIOW APC
Work: N/A	Work: N/A
Threshold = $7.6$	Threshold = 7.6
initesticita inc	

NOTE: EXISTING SITE USE VMT AND TRIP GENERATION CALCULATIONS DO NOT INCLUDE ENTITLED BUT CURRENTLY VACANT 800 SQ. FT. RETAIL AREA

Measuring the Miles

# Report 1: Project & Analysis Overview

Project Name: Mirabel Mixed-Use (688 S. Cochran Aver Project Scenario: Project VMT Impact Analysis Project Address: 688 S COCHRAN AVE, 90036

Date: April 18, 2022



Project Information						
Land	Use Type	Value	Units			
	Single Family	0	DU			
	Multi Family	310	DU			
Housing	Townhouse	0	DU			
0	Hotel	0	Rooms			
	Motel	0	Rooms			
	Family	38	DU			
	Senior	0	DU			
Attordable Housing	Special Needs	0	DU			
	Permanent Supportive	0	DU			
	General Retail	7.378	ksf			
Retail	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	4.442	Laf			
	Restaurant	4.443	KST			
	Fast-Food Restaurant	0.000	ksf			
	Quality Restaurant	0.000	ksf			
	Auto Repair	0.000	ksf			
	Home Improvement	0.000	ksf			
	Free-Standing Discount	0.000	ksf			
	Movie Theater	0	Seats			
Office	General Office	0.000	ksf			
Office	Medical Office	0.000	ksf			
	Light Industrial	0.000	ksf			
Industrial	Manufacturing	0.000	ksf			
	Warehousing/Self-Storage	0.000	ksf			
	University	0	Students			
	High School	0	Students			
School	Middle School	0	Students			
	Elementary	0	Students			
	Private School (K-12)	0	Students			
Other	Cafe	315	Trips			

#### Project and Analysis Overview

Report 1: Project & Analysis Overview

Project Name: Mirabel Mixed-Use (688 S. Cochran Aver Project Scenario: Project VMT Impact Analysis Project Address: 688 S COCHRAN AVE, 90036

Date: April 18, 2022



	Analysis Results							
	Total Employees: 37							
	Total Population:	818						
Propose	ed Project	With Mi	tigation					
1,811	Daily Vehicle Trips	1,811	Daily Vehicle Trips					
11,234	Daily VMT	11,234	Daily VMT					
	Household VMT		Household VMT per					
4	per Capita	4	Capita					
21/2	Work VMT		Work VMT per					
N/A	per Employee	N/A	Employee					
	Significant VMT	Impact?						
	APC: Centr	al						
	Impact Threshold: 15% Belo	ow APC Average						
	Household = 6	5.0						
	Work = 7.6							
Propose	ed Project	With Mi	tigation					
VMT Threshold	Impact	VMT Threshold	Impact					
Household > 6.0	No	Household > 6.0	No					
Work > 7.6	N/A	Work > 7.6	N/A					

Date: April 18, 2022 Project Name: Mirabel Mixed-Use (688 S. Cochran Ave Project Scenario: Project VMT Impact Analysis Project Address: 688 S COCHRAN AVE, 90036



### **Report 2: TDM Inputs**

Strategy TypeDescriptionProposed ProjectMitigationParking supplyCity code parking provision (spaces)589589Actual parking provision (spaces)478478Unbundle parkingMonthly cost for parking (\$)\$0\$0Parking cash-outEmployees eligible (%)0%0%Price workplace parkingDaily parking charge (\$)\$0.00\$0.00Price workplace parking permitsEmployees subject to priced parking (%)0%0%Residential area parking permitsCost of annual permit (\$)\$0\$0(cont. on following page)50\$0\$0		т. –	DM Strategy Inpu	uts	
Reduce parking supplyCity code parking provision (spaces)589589Reduce parking supplyCity code parking provision (spaces)478478Unbundle parkingMonthly cost for parking (\$)\$0\$0Parking cash-outEmployees eligible (%)0%0%Price workplace parkingEmployees subject to priced parking (%)0%0%Residential area parking permitsCost of annual permit (\$)\$0\$0(cont. on following page)(cont. on following page)\$0	Stra	tegy Type	Description	Proposed Project	Mitigation
Parking 478 478   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   Price workplace parking Employees subject to priced parking (%) 0% 0%   Residential area parking permits Cost of annual permit (\$) \$0 \$0   (cont. on following page) (cont. on following page) \$0 \$0		Reduce parking supply	City code parking provision (spaces)	589	589
Unbundle parking Monthly cost for parking (\$) \$0 \$0   Parking cash-out Employees eligible (%) 0% 0%   Parking cash-out Daily parking charge (\$) \$0.00 \$0.00   Price workplace parking Employees subject to priced parking (%) 0% 0%   Residential area parking permits Cost of annual permit (\$) \$0 \$0   (cont. on following page) (cont. on following page) \$0 \$0			Actual parking provision (spaces)	478	478
Parking Parking cash-out Employees eligible (%) 0% 0%   Parking cash-out Daily parking charge (\$) \$0.00 \$0.00   Price workplace parking Employees subject to priced parking (%) 0% 0%   Residential area parking permits Cost of annual permit (\$) \$0 \$0   (cont. on following page) (cont. on following page) \$0 \$0		Unbundle parking	Monthly cost for parking (\$)	\$0	\$0
Daily parking charge (\$)\$0.00\$0.00Price workplace parkingEmployees subject to priced parking (%)0%0%Residential area parking permitsCost of annual permit (\$)\$0\$0(cont. on following page)	Parking	Parking cash-out	Employees eligible (%)	0%	0%
parking Employees subject to priced parking (%) 0% 0%   Residential area parking permits Cost of annual permit (\$) \$0 \$0   (cont. on following page) (cont. on following page) (cont. on following page)		Price workplace	Daily parking charge (\$)	\$0.00	\$0.00
Residential area Cost of annual \$0 \$0   parking permits permit (\$) \$0 \$0   (cont. on following page) \$0 \$0		parking	Employees subject to priced parking (%)	0%	0%
(cont. on following page)		Residential area parking permits	Cost of annual permit (\$)	\$0	<i>\$0</i>
(cont. on following page)					
		(	cont. on following page	2)	

### **Report 2: TDM Inputs**

Date: April 18, 2022 Project Name: Mirabel Mixed-Use (688 S. Cochran Ave Project Scenario: Project VMT Impact Analysis Project Address: 688 S COCHRAN AVE, 90036



TDM Strategy Inputs, Cont.							
Strate	еду Туре	Description	Proposed Project	Mitigations			
		Reduction in headways (increase in frequency) (%)	0%	0%			
Transit	Reduce transit headways	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%			
		Employees and residents eligible (%)	0%	0%			
	Transit subsidies	Amount of transit subsidy per passenger (daily equivalent) (\$)	\$0.00	\$0.00			
Education &	Voluntary travel behavior change program	Employees and residents participating (%)	0%	0%			
Encouragement	Promotions and marketing	Employees and residents participating (%)	100%	100%			

### **Report 2: TDM Inputs**

Date: April 18, 2022 Project Name: Mirabel Mixed-Use (688 S. Cochran Ave Project Scenario: Project VMT Impact Analysis Project Address: 688 S COCHRAN AVE, 90036



TDM Strategy Inputs, Cont.							
Strate	еду Туре	Description	Proposed Project	Mitigations			
	Required commute trip reduction program	Employees participating (%)	0%	0%			
Commute Trip Reductions	Alternative Work Schedules and	Employees participating (%)	0%	0%			
	Telecommute	Type of program	0	0			
		Degree of implementation (low, medium, high)	0	0			
	Employer sponsored vanpool or shuttle	Employees eligible (%)	0%	0%			
		Employer size (small, medium, large)	0	0			
	Ride-share program	Employees eligible (%)	0%	0%			
	Car share	Car share project setting (Urban, Suburban, All Other)	0	0			
Shared Mobility	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			

#### Date: April 18, 2022 Project Name: Mirabel Mixed-Use (688 S. Cochran Ave Project Scenario: Project VMT Impact Analysis Project Address: 688 S COCHRAN AVE, 90036



### **Report 2: TDM Inputs**

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

Report 3: TDM Outputs

Date: April 18, 2022 Project Name: Mirabel Mixed-Use (688 S. Cochran Avenue) Project Scenario: Project VMT Impact Analysis

Project Address: 688 S COCHRAN AVE, 90036



	TDM Adjustments by Trip Purpose & Strategy													
						Place type	: Compact	Infill						
		Home B	ased Work	Home B	ased Work	Home B	ased Other	Home Bo	ased Other	Non-Home	Based Other	Non-Home	e Based Other	
		Proposed	Mitigated	Attr	action Mitigated	Proc	luction Mitigated	Attr	Mitigated	Proposed	duction Mitigated	<u>Attr</u>	raction Mitigated	Source
	Peduce parking supply	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		970	976	970	970	970	970	970	970	970	970	970	970	_
	Unbundle parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy
Parking	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix, Parking
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1 - 5
	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%	
	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy
Transit	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix, Transit sections 1 - 3
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education &	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education &
Encouragement	Promotions and marketing	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	0%	Encouragement sections 1 - 2
	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Commute Trip Reductions	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	sections 1 - 4
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	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
Shared Mobility	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%	Appendix, Shared
	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%	Mobility sections 1 - 3

Date: April 18, 2022

**Report 3: TDM Outputs** 

Project Name: Mirabel Mixed-Use (688 S. Cochran Avenue) Project Scenario: Project VMT Impact Analysis Project Address: 688 S COCHRAN AVE, 90036



TDM Adjustments by Trip Purpose & Strategy, Cont.														
						Place type	Compact	Infill						
		Home Bo Prod	ased Work luction	Home Bo Attri	ased Work action	Home Bo Prod	ised Other uction	Home Bo Attr	ased Other action	Non-Home Prod	Based Other uction	Non-Home Attr	Based Other action	Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
	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
Bicycle Infrastructure	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%	Appendix, Bicycle Infrastructure
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	sections 1 - 3
Neighborhood	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,
Enhancement	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%	Neighborhood Enhancement

	Final Combined & Maximum TDM Effect											
	Home Ba Produ	sed Work Iction	: Home Based Work Attraction		ork 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	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%	10%
MAX. TDM EFFECT	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%

= Min	= Minimum (X%, 1-[(1-A)*(1-B)])							
where X%=								
PLACE	urban	75%						
ТҮРЕ	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.

> Report 3: TDM Outputs 2 of 2

## **Report 4: MXD Methodology**

Project Name: Mirabel Mixed-Use (688 S. Cochran Ave Project Scenario: Project VMT Impact Analysis Project Address: 688 S COCHRAN AVE, 90036

Date: April 18, 2022



MXD Methodology - Project Without TDM									
	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT			
Home Based Work Production	310	-24.5%	234	6.5	2,015	1,521			
Home Based Other Production	859	-46.1%	463	4.8	4,123	2,222			
Non-Home Based Other Production	621	-6.4%	581	7.1	4,409	4,125			
Home-Based Work Attraction	66	-43.9%	37	7.6	502	281			
Home-Based Other Attraction	912	-46.5%	488	6.4	5,837	3,123			
Non-Home Based Other Attraction	317	-7.6%	293	5.9	1,870	1,729			

### MXD Methodology with TDM Measures

		Proposed Project		Project with Mitigation Measures			
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT	
Home Based Work Production	-13.6%	202	1,314	-13.6%	202	1,314	
Home Based Other Production	-13.6%	400	1,920	-13.6%	400	1,920	
Non-Home Based Other Production	-13.6%	502	3,564	-13.6%	502	3,564	
Home-Based Work Attraction	-13.6%	32	243	-13.6%	32	243	
Home-Based Other Attraction	-13.6%	422	2,699	-13.6%	422	2,699	
Non-Home Based Other Attraction	-13.6%	253	1,494	-13.6%	253	1,494	

MXD VMT Methodology Per Capita & Per Employee									
Total Population: 818									
	Total Employees: 37								
APC: Central									
	Proposed Project	Project with Mitigation Measures							
Total Home Based Production VMT	3,234	3,234							
Total Home Based Work Attraction VMT	243	243							
Total Home Based VMT Per Capita	4.0	4.0							
Total Work Based VMT Per Employee N/A N/A									

APPENDIX F

PROPOSED PROJECT AND EXISTING ON-SITE USES TRIP GENERATION CALCULATIONS AND SUPPORTING DATA AND OTHER INFORMATION
Proposed Project and Existing On-Site Uses Trip Generation Rates and Assumptions and Trip Generation Estimates

#### Table F-1(a) 688 S. Cochran Avenue Mixed-Use Project Trip Generation Rates and Assumptions

#### Project and Existing Uses Trip Generation Rates and Assumptions:

#### **Residential Components**

Multifamily Housing (High-Rise) - per dwelling unit (ITE Land Use 222)

Daily Trips:	T = 4.45 (U)
AM Peak Hour:	T = 0.31 (U); I/B = 24%, O/B = 76%
PM Peak Hour:	T = 0.36 (U); I/B = 61%, O/B = 39%

Affordable Housing (Family - within TPA Area) - per dwelling unit (Table 3.3-2, LADOT Transportation Assessment Guidelines , July 2020)

Daily Trips:	T = 4.16 (U)
AM Peak Hour:	T = 0.49 (U); I/B = 37%, O/B = 63%
PM Peak Hour:	T = 0.35 (U); I/B = 56%, O/B = 44%

#### **Retail/Commercial Components**

<u>Shopping Center</u> - per 1,000 sq. ft. (ITE Land Use 820)

Daily Trips:	T = 37.75 (A)
AM Peak Hour:	T = 0.94 (A); I/B = 62%, O/B = 38%
PM Peak Hour:	T = 3.81 (A); I/B = 48%, O/B = 52%

High-Turnover (Sit-Down) Restaurant - per 1,000 sq. ft. of floor area (ITE Land Use 932)

Daily Trips:	T = 112.18 (A)
AM Peak Hour:	T = 9.94 (A); I/B = 55%, O/B = 45%
PM Peak Hour:	T = 9.77 (A); I/B = 62%, O/B = 38%

Fast Casual Restaurant - per 1,000 sq. ft. of floor area (ITE Land Use 930)

Daily Trips:	T = 315.17 (A)
AM Peak Hour:	T = 2.07 (A); I/B = 67%, O/B = 33%
PM Peak Hour:	T = 14.13 (A); I/B = 55%, O/B = 45%

#### "Big Box" Retail Store (Existing On-Site Staples Store)

Daily Trips:	Daily (24-hour) and Peak Hour Trips
AM Peak Hour:	<ul> <li>Based on Empirical Counts</li> </ul>
PM Peak Hour:	from Existing On-Site Staples Store

General Office - per 1,000 sq. ft. of floor area (ITE Land Use 710)

Daily Trips: AM Peak Hour: PM Peak Hour:	T = 9.74 (A) T = 1.16 (A); I/B = 86%, O/B = 14% T = 1.15 (A); I/B = 16%, O/B = 84%	
Where:	T = Trip Ends A = Building Area in 1,000 sq. ft. U = Number of Residential Units	I/B = Inbound Trip Percentage O/B = Outbound Trip Percentage

\* <u>Note:</u>

All trip rates and information from 10th Ed. ITE Trip Generation unless otherwise noted.

## Trip Generation Adjustments:

Proposed Uses	
Market-Rate Residential:	20% reduction in trips due to transit use by project residents [including Metro RapidBus 720 and Purple ("B") Line]. 10% use of "ride service" (Uber, Lyft, taxi, etc.) by project residents.
"Affordable" Residential:	10% use of "ride service" (Uber, Lyft, taxi, etc.) by project residents.
General Retail:	5% reduction in trips due to partonage by on-site residents. 5% total use of "ride service" (Uber, Lyft, taxi, etc.) by employees/patrons.
Restaurant(s) and Cafe:	5% reduction in trips due to partonage by on-site residents. 5% reduction in trips due to pedestrian ("walk-in") patronage by (non-project) area residents. 5% total use of "ride service" (Uber, Lyft, taxi, etc.) by employees/patrons.
Existing Uses	
Staples:	5% total use of "ride service" (Uber, Lyft, taxi, etc.) by employees/patrons.
Retail:	5% total use of "ride service" (Uber, Lyft, taxi, etc.) by employees/patrons.

#### Table F-1(b) 688 S. Cochran Avenue Mixed-Use Project Trip Generation Calculations

Project Trip Generation Estimates:

		AM Peak Hour			PM Peak Hour		
Size/Use	Daily	In	Out	Total	In	Out	Total
Proposed Project							
Residential Component							
310 -unit "Market-Rate" Residential Units	1,380	23	73	96	68	44	112
Less 20% Transit Utilization (Metro Rapid 720 and Purple Line)	(276)	(5)	(14)	(19)	(13)	(9)	(22)
Less 10% "Ride Service" Utilization (Uber, Lyft, etc.)	(110)	(8)	(8)	(16)	(9)	(9)	(18)
"Ride Service" Trips	110	8	8	16	9	9	18
Total Proposed Market-Rate Residential Trips	1,104	18	59	77	55	35	90
38 -unit "Affordable" Residential Units	158	7	12	19	7	6	13
Less 10% "Ride Service" Utilization (Uber, Lyft, etc.)	(16)	(2)	(2)	(4)	(1)	(1)	(2)
"Ride Service" Trips	16	2	2	4	1	1	2
Total Proposed "Affordable" Residential Trips	158	7	12	19	7	6	13
Subtotal Proposed Residential Vehicular Trips	1,136	15	61	76	52	31	83
Subtotal Proposed Residential "Ride Service" Trips	126	10	10	20	10	10	20
Total Proposed Residential Component Trips	1,262	25	71	96	62	41	103
Retail/Commercial Components							
7,378 sq. ft. General Retail	279	4	3	7	13	15	28
Less 5% Mixed-Use Interaction (on-site residential)	(14)	0	0	0	0	(1)	(1)
Total Proposed General Retail Trips	265	4	3	7	13	14	27
Less 5% "Ride Service" Utilization (Uber, Lyft, etc.)	(13)	0	0	0	(1)	(1)	(2)
"Ride Service" Trips	13	0	0	0	1	1	2
4,443 sq. ft. High-Turnover Sit-Down Restaurants (Total)	498	24	20	44	27	16	43
Less 5% Mixed-Use Interaction (on-site residential)	(25)	(1)	(1)	(2)	(1)	(1)	(2)
Less 5% waik-in Patronage	(24)	(1)	(1)	(2)	(1)	(1)	(2)
Total Proposed High-Turnover Sit-Down Restaurant Trips	449	22	18	40	25	14	39
Less 5% "Ride Service" Utilization (Uber, Lyft, etc.)	(22)	(2)	(2)	(4)	(2)	(2)	(4)
	22	2	2	4	2	2	4
1,000 sq. ft. Cate	315	1	1	2	8 (1)	6	14 (1)
Less 5% Walk-in Patronage	(10)	0	0	0	(1)	0	(1)
Total Proposed Cafe Trips	284	1	1	2	6	6	12
Less 5% "Ride Service" Utilization (Uber Lyft etc.)	(14)	0	0	0	(1)	(1)	(2)
"Ride Service" Trips	14	0	0	0	1	1	2
Subtotal Proposed Retail/Commercial Vehicular Trips	949	25	20	45	40	30	70
Subtotal Proposed Retail/Commercial "Ride Service" Trips	49	2	2	4	4	4	8
Total Proposed Retail/Commercial Component Trips	998	27	22	49	44	34	78
Total New Site-Related Trips (With "Ride Service" Trips)	2,260	52	93	145	106	75	181
Existing Uses (Removed)							
22.162 sq. ft. Staples	1.973	56	48	104	86	82	168
9 845 sq. ft Retail (including "Wilshire Beauty Supply")	372	6	3	9	18	20	38
5.738 sq. ft. Office	56	6	1	7	1	6	7
800 sq. ft. Vacant	n/a		n/a -			n/a -	
Total Existing Retail/Office Trips Removed (5401 Wilshire)	428	12	4	16	19	26	45
Total Existing Uses Trips Removed	2.401	68	52	120	105	108	213
Net New Project Retail/Commercial Trins	(1 403)	(41)	(30)	(71)	(61)	(74)	(135)
Net New Project Residential Trips	1.262	25	71	96	62	(1-7) 41	103
Total Net New Project Trips	(141)	(16)	41	25		(33)	(32)
	···/	··-/			-	()	(/

Empirical Driveway Traffic Count Data Existing On-Site Staples Store Overall Existing On-Site Staples Store Trip Generation (3-Day Averages)

# **DRIVEWAY COUNT - SUMMARY**

#### PROJECT: 5411 WILSHIRE BOULEVARD MIXED-USE PROJECT

#### THREE-DAY AVERAGE (TUESDAY, AUGUST 21; WEDNESDAY, AUGUST 22; THURSDAY AUGUST 23, 2018) DATE:

PERIODS: 07:00 AM TO 10:00 AM 03:00 PM TO 07:00 PM

STAPLES DRIVEWAYS (TOTAL) - COCHRAN AVENUE STAPLES DRIVEWAY - CLOVERDALE AVENUE 15-MIN ENTRANCE EXIT ENTRANCE EXIT . PERIOD: SBLT NBRT WBRT WBLT SBRT NBLT EBRT EBLT -0700-0715 0715-0730 0730-0745 0745-0800 0800-0815 0815-0830 0830-0845 0845-0900 0900-0915 0915-0930 0930-0945 0945-1000 

Hourly Totals								
Time	e Pe	eriod		Entry	Exit	Total		
7:00 AM	to	8:00 AM		24	22	46		
7:15 AM	to	8:15 AM		33	25	58		
7:30 AM	to	8:30 AM		40	30	70		
7:45 AM	to	8:45 AM		46	35	81		
8:00 AM	to	9:00 AM		51	38	89		
8:15 AM	to	9:15 AM		55	44	99		
8:30 AM	to	9:30 AM		52	45	97		
8:45 AM	to	9:45 AM		56	48	104 *		
9:00 AM	to	10:00 AM		53	47	100		

	STAPLES D	RIVEWAYS (TO	TAL) - COCHR/	AN AVENUE	STAPLES	S DRIVEWAY -	CLOVERDALE	AVENUE
15-MIN	ENTR	ENTRANCE EXIT ENTRANCE		ANCE	EXIT			
PERIOD:	SBLT	NBRT	WBRT	WBLT	SBRT	NBLT	EBRT	EBLT
0300-0315	4	12	5	7	0	1	3	1
0315-0330	7	13	5	7	1	2	4	3
0330-0345	5	9	5	6	2	1	6	2
0345-0400	6	10	4	7	1	2	3	2
0400-0415	4	9	6	8	4	2	3	3
0415-0430	5	13	5	8	1	2	3	2
0430-0445	5	13	5	6	1	3	4	1
0445-0500	5	12	7	10	4	2	4	2
0500-0515	5	11	7	9	3	3	4	2
0515-0530	6	10	6	8	1	2	4	3
0530-0545	5	11	7	8	1	0	2	1
0545-0600	6	10	7	8	3	1	7	1
0600-0615	5	11	4	4	2	1	3	1
0615-0630	4	10	7	7	1	1	3	1
0630-0645	5	8	5	6	1	2	5	1
0645-0700	5	9	4	6	1	3	5	3

Hourly Totals							
Time	e Pe	eriod		Entry	Exit	Total	
3:00 PM	to	4:00 PM		76	70	146	
3:15 PM	to	4:15 PM		78	74	152	
3:30 PM	to	4:30 PM		76	73	149	
3:45 PM	to	4:45 PM		81	70	151	
4:00 PM	to	5:00 PM		85	77	162	
4:15 PM	to	5:15 PM		88	79	167	
4:30 PM	to	5:30 PM		86	82	168 *	
4:45 PM	to	5:45 PM		81	84	165	
5:00 PM	to	6:00 PM		78	84	162	
5:15 PM	to	6:15 PM		75	74	149	
5:30 PM	to	6:30 PM		72	71	143	
5:45 PM	to	6:45 PM		71	70	141	
6:00 PM	to	7:00 PM		69	65	134	

**CLIENT:** HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.

PROJECT: 5411 WILSHIRE BOULEVARD MIXED-USE PROJECT

LOCATION: STAPLES - COCHRAN AVENUE DRIVEWAYS (TOTAL BOTH DRIVEWAYS)

DATE: THREE -DAY AVERAGE (TUESDAY, AUGUST 21; WEDNESDAY, AUGUST 22; THURSDAY, AUGUST 23, 2018)

DIRECTION	:	INBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	1	0	0	0	1
01:00	0	0	0	0	0
02:00	0	0	0	0	0
03:00	0	0	0	0	0
04:00	0	0	0	0	0
05:00	0	0	0	0	0
06:00	0	2	2	4	8
07:00	3	5	7	5	20
08:00	11	13	10	10	44
09:00	13	8	12	11	44
10:00	12	13	20	15	60
11:00	17	16	17	20	70
12:00	15	17	17	17	66
13:00	16	16	16	18	66
14:00	23	14	15	15	67
15:00	18	23	18	17	76
16:00	18	17	21	21	77
17:00	16	18	17	14	65
18:00	12	12	12	11	47
19:00	9	7	7	6	29
20:00	6	6	4	4	20
21:00	2	2	3	2	9
22:00	0	0	1	1	2
23:00	1	0	1	0	2
				TOTAL	773
			-		
AM PEAK HOUR			11:00-12:00		
VOLUME			70		
PM PEAK HOU	JR			16:00-17:00	)
VOLUME			77		

DIRECTION:			OUTBOUND			
TIME					HOUR	
BEGINNING	00-15	15-30	30-45	45-60	TOTALS	
00:00	0	1	0	0	1	
01:00	0	0	1	0	1	
02:00	0	0	0	0	0	
03:00	0	0	0	0	0	
04:00	0	0	0	0	0	
05:00	0	0	0	0	0	
06:00	1	0	2	1	4	
07:00	2	4	6	5	17	
08:00	6	9	10	11	36	
09:00	10	12	11	10	43	
10:00	12	11	12	12	47	
11:00	15	14	16	12	57	
12:00	14	14	13	13	54	
13:00	11	16	18	13	58	
14:00	14	13	11	11	49	
15:00	11	11	15	16	53	
16:00	15	13	15	16	59	
17:00	20	14	16	18	68	
18:00	16	15	16	15	62	
19:00	13	16	14	15	58	
20:00	12	13	12	11	48	
21:00	7	6	7	2	22	
22:00	2	1	1	1	5	
23:00	2	1	1	1	5	
				TOTAL	747	
			-			
AM PEAK HOUR			11:00-12:00			
VOLUME			57			
PM PEAK HOUR			17:00-18:00			
VOLUME			68			

TOTAL BI-DIRECTIONAL VOLUME	1,520

**CLIENT:** HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.

PROJECT: 5411 WILSHIRE BOULEVARD MIXED-USE PROJECT

LOCATION: STAPLES - CLOVERDALE AVENUE DRIVEWAY

DATE: THREE -DAY AVERAGE (TUESDAY, AUGUST 21; WEDNESDAY, AUGUST 22; THURSDAY, AUGUST 23, 2018)

DIRECTION:			INBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS	
00:00	0	0	0	0	0	
01:00	0	0	0	0	0	
02:00	0	0	0	0	0	
03:00	0	0	0	0	0	
04:00	0	0	0	0	0	
05:00	0	0	0	0	0	
06:00	0	0	1	1	2	
07:00	2	4	2	3	11	
08:00	4	4	4	6	18	
09:00	5	2	3	4	14	
10:00	4	3	3	5	15	
11:00	5	4	2	3	14	
12:00	3	2	6	4	15	
13:00	3	4	5	1	13	
14:00	5	3	4	2	14	
15:00	3	4	5	3	15	
16:00	6	5	5	6	22	
17:00	6	4	2	3	15	
18:00	3	2	3	4	12	
19:00	3	4	4	4	15	
20:00	2	2	2	2	8	
21:00	2	0	1	0	3	
22:00	1	2	0	0	3	
23:00	0	0	0	0	0	
				TOTAL	209	
			-			
AM PEAK HOUR			08:15-09:15			
VOLUME			19			
PM PEAK HO	JR		16:00-17:00			
VOLUME			22			

DIRECTION:			OUTBOUND			
	00-15	15-30	30-45	45-60	HOUR	
00:00	0	0	0	0	0	
01.00	0	0	0	0	0	
02:00	0	1	0	0	1	
03:00	0	0	0	0	0	
04:00	0	0	0	0	0	
05:00	0	0	0	0	0	
06:00	0	0	0	1	1	
07:00	0	1	2	4	7	
08:00	1	5	4	3	13	
09:00	3	5	4	4	16	
10:00	6	3	3	4	16	
11:00	5	4	2	6	17	
12:00	5	3	4	4	16	
13:00	4	6	3	5	18	
14:00	8	3	3	4	18	
15:00	5	6	6	5	22	
16:00	5	4	5	6	20	
17:00	5	6	5	6	22	
18:00	6	5	7	6	24	
19:00	4	4	5	2	15	
20:00	3	3	2	1	9	
21:00	2	2	1	1	6	
22:00	1	1	0	0	2	
23:00	0	0	1	0	1	
				TOTAL	244	
AM PEAK HOUR				09:15-10:15	i	
VOLUME			19			
PM PEAK HOUR			17:45-18:45			
VOLUME			24			

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TOTAL BI-DIRECTIONAL VOLUME	453

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HIRSCH/GREEN TRANSPORTATION CONSULTING, INC. CLIENT:

PROJECT: 5411 WILSHIRE BOULEVARD MIXED-USE PROJECT

LOCATION: STAPLES - COCHRAN AVENUE DRIVEWAYS (TOTAL BOTH DRIVEWAYS)

#### SITE TOTALS - BASED ON THREE -DAY AVERAGE (TUESDAY, AUGUST 21; WEDNESDAY, AUGUST 22; THURSDAY, AUGUST 23, 2018) DATE:

DIRECTION	:	INBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	1	0	0	0	1
01:00	0	0	0	0	0
02:00	0	0	0	0	0
03:00	0	0	0	0	0
04:00	0	0	0	0	0
05:00	0	0	0	0	0
06:00	0	2	3	5	10
07:00	5	9	9	8	31
08:00	15	17	14	16	62
09:00	18	10	15	15	58
10:00	16	16	23	20	75
11:00	22	20	19	23	84
12:00	18	19	23	21	81
13:00	19	20	21	19	79
14:00	28	17	19	17	81
15:00	21	27	23	20	91
16:00	24	22	26	27	99
17:00	22	22	19	17	80
18:00	15	14	15	15	59
19:00	12	11	11	10	44
20:00	8	8	6	6	28
21:00	4	2	4	2	12
22:00	1	2	1	1	5
23:00	1	0	1	0	2
				TOTAL	982
AM PEAK HOUR			10:30-11:30		
VOLUME			85		
PM PEAK HOUR			16:00-17:00		
VOLUME			99		

DIRECTION:			OUTBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS	
00:00	0	1	0	0	1	
01:00	0	0	1	0	1	
02:00	0	1	0	0	1	
03:00	0	0	0	0	0	
04:00	0	0	0	0	0	
05:00	0	0	0	0	0	
06:00	1	0	2	2	5	
07:00	2	5	8	9	24	
08:00	7	14	14	14	49	
09:00	13	17	15	14	59	
10:00	18	14	15	16	63	
11:00	20	18	18	18	74	
12:00	19	17	17	17	70	
13:00	15	22	21	18	76	
14:00	22	16	14	15	67	
15:00	16	17	21	21	75	
16:00	20	17	20	22	79	
17:00	25	20	21	24	90	
18:00	22	20	23	21	86	
19:00	17	20	19	17	73	
20:00	15	16	14	12	57	
21:00	9	8	8	3	28	
22:00	3	2	1	1	7	
23:00	2	1	2	1	6	
				TOTAL	991	
AM PEAK HOUR			11:00-12:00			
VOLUME			74			
PM PEAK HOUR			17:00-18:00			
VOLUME			90			

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TOTAL BI-DIRECTIONAL VOLUME	1,973

Individual Daily Existing On-Site Staples Store Driveway Traffic Count Data

Tuesday, August 21, 2018

# **DRIVEWAY COUNT - SUMMARY**

- CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
- **PROJECT:** 5411 WILSHIRE BOULEVARD MIXED-USE PROJECT
- DATE: TUESDAY, AUGUST 21, 2018

**PERIODS:** 07:00 AM TO 10:00 AM

03:00 PM TO 07:00 PM

LOCATIONS: STAPLES DRIVEWAYS - COCHRAN AVENUE (TWO DRIVEWAYS) AND CLOVERDALE AVENUE

	STAPLES DRIVEWAYS (TOTAL) - COCHRAN AVENUE				STAPLES DRIVEWAY - CLOVERDALE AVENUE			
15-MIN	ENTR	ANCE	E	кіт	ENTR	ANCE	EXIT	
PERIOD:	SBLT	NBRT	WBRT	WBLT	SBRT	NBLT	EBRT	EBLT
0700-0715	1	4	1	1	0	0	1	0
0715-0730	0	6	3	3	2	2	2	0
0730-0745	1	1	2	1	0	1	1	2
0745-0800	2	2	1	3	1	2	1	1
0800-0815	9	6	3	1	2	3	1	2
0815-0830	3	4	2	5	2	1	2	2
0830-0845	1	7	3	6	2	1	3	2
0845-0900	5	3	2	8	5	2	1	0
0900-0915	7	9	6	4	3	4	2	1
0915-0930	2	8	6	6	2	1	2	0
0930-0945	0	7	5	4	5	2	3	1
0945-1000	4	7	2	4	2	1	1	2

	STAPLES DRIVEWAYS (TOTAL) - COCHRAN AVENUE			STAPLES DRIVEWAY - CLOVERDALE AVENUE				
15-MIN	ENTR	ANCE	E	кіт	ENTR	ANCE	EXIT	
PERIOD:	SBLT	NBRT	WBRT	WBLT	SBRT	NBLT	EBRT	EBLT
0300-0315	5	12	7	7	1	1	3	1
0315-0330	9	11	4	4	2	1	9	3
0330-0345	8	8	5	7	1	3	9	3
0345-0400	7	13	8	6	2	5	3	3
0400-0415	4	12	10	9	8	3	4	2
0415-0430	7	14	6	10	2	0	4	4
0430-0445	8	10	9	7	0	4	4	0
0445-0500	5	11	5	10	0	0	3	1
0500-0515	2	9	4	9	3	6	3	2
0515-0530	9	15	5	11	3	2	3	3
0530-0545	2	10	3	7	0	0	1	1
0545-0600	4	8	5	10	3	0	5	3
0600-0615	5	11	5	4	4	1	4	2
0615-0630	5	10	5	4	2	1	4	0
0630-0645	4	9	7	4	1	0	7	0
0645-0700	5	10	3	5	1	3	6	4

DATA PROVIDED BY:

**CLIENT:** HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.

**PROJECT:** 5411 WILSHIRE BOULEVARD MIXED-USE PROJECT

LOCATION: STAPLES - COCHRAN AVENUE DRIVEWAYS (TOTAL BOTH DRIVEWAYS)

DATE: TUESDAY, AUGUST 21, 2018

DIRECTION	:	INBOUND				
TIME					HOUR	
BEGINNING	00-15	15-30	30-45	45-60	TOTALS	
00:00	0	0	1	0	1	
01:00	0	0	0	0	0	
02:00	1	0	0	0	1	
03:00	0	0	0	0	0	
04:00	0	0	0	0	0	
05:00	0	0	0	1	1	
06:00	0	3	3	4	10	
07:00	6	7	9	7	29	
08:00	14	8	12	8	42	
09:00	13	9	11	15	48	
10:00	9	10	22	11	52	
11:00	15	19	21	22	77	
12:00	17	21	16	18	72	
13:00	23	15	19	18	75	
14:00	20	22	11	21	74	
15:00	19	24	22	18	83	
16:00	23	12	19	22	76	
17:00	14	25	12	9	60	
18:00	8	10	9	11	38	
19:00	3	5	4	5	17	
20:00	4	3	2	3	12	
21:00	2	0	1	0	3	
22:00	1	0	0	2	3	
23:00	0	0	0	1	1	
				TOTAL	775	
AM PEAK HOUR			11:00-12:00			
VOLUME			77			
PM PEAK HOUR			15:15-16:15			
VOLUME			87			

DIRECTION:			OUTBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS	
00:00	0	0	0	0	0	
01:00	0	0	0	0	0	
02:00	0	0	1	1	2	
03:00	0	0	0	0	0	
04:00	0	0	0	0	0	
05:00	0	0	0	1	1	
06:00	1	1	1	1	4	
07:00	3	5	5	6	19	
08:00	7	9	10	13	39	
09:00	12	12	10	9	43	
10:00	12	9	12	13	46	
11:00	13	16	15	13	57	
12:00	14	14	16	13	57	
13:00	7	19	23	10	59	
14:00	18	15	11	14	58	
15:00	13	14	15	18	60	
16:00	21	20	21	16	78	
17:00	16	16	15	21	68	
18:00	20	13	15	9	57	
19:00	10	13	10	11	44	
20:00	10	8	9	11	38	
21:00	7	5	7	0	19	
22:00	0	0	0	1	1	
23:00	3	2	1	0	6	
				TOTAL	756	
AM PEAK HOUR			11:00-12:00			
VOLUME			57			
PM PEAK HOUR	ł		15:45-16:45			
VOLUME				80		

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1,551

DATA PROVIDED BY:

CLIENT:HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.PROJECT:5411 WILSHIRE BOULEVARD MIXED-USE PROJECTLOCATION:STAPLES - CLOVERDALE AVENUE DRIVEWAYDATE:TUESDAY, AUGUST 21, 2018

DIRECTION:			INBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS	
00:00	0	0	0	0	0	
01:00	0	0	0	0	0	
02:00	0	0	0	1	1	
03:00	0	0	0	0	0	
04:00	0	0	0	0	0	
05:00	0	0	0	0	0	
06:00	0	0	1	0	1	
07:00	1	5	2	4	12	
08:00	6	2	2	3	13	
09:00	5	2	4	4	15	
10:00	2	4	3	5	14	
11:00	5	3	3	4	15	
12:00	2	3	6	5	16	
13:00	5	0	7	2	14	
14:00	2	2	2	4	10	
15:00	4	5	6	4	19	
16:00	9	3	5	3	20	
17:00	7	6	1	4	18	
18:00	5	3	4	4	16	
19:00	4	2	4	3	13	
20:00	2	1	2	2	7	
21:00	1	0	2	0	3	
22:00	2	0	0	0	2	
23:00	0	0	0	0	0	
				TOTAL	209	
AM PEAK HOUR			07:15-08:15			
VOLUME			17			
PM PEAK HO	JR		15:15-16:15			
VOLUME				24		

DIRECTION:			OUTBOUND			
	00.15	15.20	20.45	45.60	HOUR	
	00-13	13-30	50-45	43-60	IUTALS	
00:00	0	0	0	0	0	
01:00	0	0	0	0	0	
02:00	0	0	0	1	1	
03:00	0	0	0	0	0	
04:00	0	0	0	0	0	
05:00	0	0	0	0	0	
06:00	0	0	0	0	0	
07:00	0	1	2	4	7	
08:00	1	6	4	3	14	
09:00	2	5	3	5	15	
10:00	9	4	4	8	25	
11:00	5	5	3	9	22	
12:00	2	2	0	7	11	
13:00	3	7	4	4	18	
14:00	8	4	2	4	18	
15:00	5	6	8	7	26	
16:00	6	5	6	4	21	
17:00	6	5	4	10	25	
18:00	7	6	8	2	23	
19:00	3	1	7	2	13	
20:00	3	5	2	0	10	
21:00	2	0	0	1	3	
22:00	0	2	0	0	2	
23:00	0	0	0	0	0	
				TOTAL	254	
AM PEAK HOUR				10:00-11:00	)	
VOLUME			25			
PM PEAK HOUR			17:45-18:45			
VOLUME				31		

TOTAL BI-DIRECTIONAL VOLUME	463

DATA PROVIDED BY:

Wednesday, August 22, 2018

# **DRIVEWAY COUNT - SUMMARY**

- CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
- **PROJECT:** 5411 WILSHIRE BOULEVARD MIXED-USE PROJECT
- DATE: WEDNESDAY, AUGUST 22, 2018

**PERIODS:** 07:00 AM TO 10:00 AM

03:00 PM TO 07:00 PM

LOCATIONS: STAPLES DRIVEWAYS - COCHRAN AVENUE (TWO DRIVEWAYS) AND CLOVERDALE AVENUE

	STAPLES DRIVEWAYS (TOTAL) - COCHRAN AVENUE			STAPLES DRIVEWAY - CLOVERDALE AVENUE				
15-MIN	ENTR	ANCE	E)	кіт	ENTR	ANCE	EXIT	
PERIOD:	SBLT	NBRT	WBRT	WBLT	SBRT	NBLT	EBRT	EBLT
0700-0715	0	3	0	2	0	2	1	1
0715-0730	0	3	3	2	0	1	0	0
0730-0745	1	3	2	0	2	1	2	0
0745-0800	1	4	0	5	1	2	1	2
0800-0815	1	5	0	3	1	0	0	1
0815-0830	3	8	3	2	5	0	4	0
0830-0845	2	4	1	6	1	0	1	0
0845-0900	3	4	3	7	5	3	0	1
0900-0915	5	6	2	2	0	2	4	1
0915-0930	1	5	3	2	3	1	1	1
0930-0945	3	8	4	5	1	2	4	1
0945-1000	2	4	1	3	0	1	4	0

	STAPLES DRIVEWAYS (TOTAL) - COCHRAN AVENUE			STAPLES DRIVEWAY - CLOVERDALE AVENUE				
15-MIN	ENTR	ANCE	E	«п	ENTR	ANCE	EXIT	
PERIOD:	SBLT	NBRT	WBRT	WBLT	SBRT	NBLT	EBRT	EBLT
0300-0315	5	16	6	9	0	2	6	2
0315-0330	6	19	6	8	2	2	1	3
0330-0345	4	10	4	6	0	0	3	1
0345-0400	6	7	2	9	0	1	3	0
0400-0415	4	8	8	9	4	1	2	4
0415-0430	3	17	5	12	1	3	3	1
0430-0445	6	15	3	6	3	2	5	2
0445-0500	5	13	12	10	9	3	4	2
0500-0515	9	16	12	11	2	0	3	3
0515-0530	7	8	7	9	0	1	6	2
0530-0545	5	15	9	10	0	1	4	1
0545-0600	9	8	6	4	3	3	7	0
0600-0615	5	10	5	4	2	0	3	1
0615-0630	3	9	10	8	0	0	2	0
0630-0645	6	7	4	8	1	3	3	2
0645-0700	2	10	3	3	2	4	5	3

DATA PROVIDED BY:

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.

**PROJECT:** 5411 WILSHIRE BOULEVARD MIXED-USE PROJECT

LOCATION: STAPLES - COCHRAN AVENUE DRIVEWAYS (TOTAL BOTH DRIVEWAYS)

DATE: WEDNESDAY, AUGUST 22, 2018

DIRECTION	:	INBOUND			
TIME					HOUR
BEGINNING	00-15	15-30	30-45	45-60	TOTALS
00:00	0	0	0	0	0
01:00	1	0	1	0	2
02:00	0	0	0	0	0
03:00	0	0	0	0	0
04:00	0	0	0	0	0
05:00	0	1	0	0	1
06:00	0	2	2	3	7
07:00	2	5	5	4	16
08:00	7	16	8	8	39
09:00	13	9	13	8	43
10:00	17	11	23	17	68
11:00	15	13	11	12	51
12:00	12	18	17	13	60
13:00	9	19	15	15	58
14:00	23	11	25	14	73
15:00	22	24	16	15	77
16:00	14	19	23	22	78
17:00	21	16	22	19	78
18:00	16	15	15	11	57
19:00	10	9	8	8	35
20:00	8	9	7	5	29
21:00	3	2	4	3	12
22:00	0	0	2	1	3
23:00	0	0	1	0	1
				TOTAL	788
AM PEAK HOUR				10:00-11:00	)
VOLUME			68		
PM PEAK HOU	JR			16:15-17:15	;
VOLUME				85	

DIRECTION:	DIRECTION:			OUTBOUND		
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS	
00:00	0	0	0	0	0	
01:00	0	0	0	0	0	
02:00	0	0	0	0	0	
03:00	0	0	0	0	0	
04:00	0	0	0	0	0	
05:00	0	0	0	0	0	
06:00	1	0	4	0	5	
07:00	1	3	4	5	13	
08:00	3	7	9	10	29	
09:00	7	13	8	10	38	
10:00	13	12	15	13	53	
11:00	14	10	10	9	43	
12:00	10	17	9	9	45	
13:00	13	9	17	16	55	
14:00	8	9	10	10	37	
15:00	13	7	17	16	53	
16:00	17	14	13	20	64	
17:00	27	17	22	18	84	
18:00	17	21	20	21	79	
19:00	17	23	14	16	70	
20:00	13	20	17	13	63	
21:00	9	7	9	1	26	
22:00	1	0	0	0	1	
23:00	0	0	0	0	0	
				TOTAL	758	
AM PEAK HOUR				10:15-11:15	5	
VOLUME			54			
PM PEAK HOUR	l		16:45-17:45			
VOLUME			86			

TOTAL BI-DIRECTIONAL VOLUME	1,546

DATA PROVIDED BY:

CLIENT:HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.PROJECT:5411 WILSHIRE BOULEVARD MIXED-USE PROJECTLOCATION:STAPLES - CLOVERDALE AVENUE DRIVEWAYDATE:WEDNESDAY, AUGUST 22, 2018

DIRECTION		INBOUND			
TIME					HOUR
BEGINNING	00-15	15-30	30-45	45-60	TOTALS
00:00	0	0	0	0	0
01:00	0	0	0	0	0
02:00	0	0	0	0	0
03:00	1	0	0	0	1
04:00	0	0	0	0	0
05:00	0	0	0	0	0
06:00	1	0	2	2	5
07:00	3	4	3	2	12
08:00	2	6	3	9	20
09:00	4	2	2	2	10
10:00	7	2	1	3	13
11:00	6	4	2	3	15
12:00	2	2	7	2	13
13:00	2	11	3	1	17
14:00	5	3	7	0	15
15:00	3	3	2	3	11
16:00	6	7	6	9	28
17:00	3	2	2	5	12
18:00	1	1	5	5	12
19:00	2	4	5	5	16
20:00	1	2	3	3	9
21:00	4	0	0	0	4
22:00	0	1	0	1	2
23:00	0	0	0	1	1
				TOTAL	216
AM PEAK HOUR			08:15-09:15		
VOLUME			22		
PM PEAK HO	JR		16:00-17:00		
VOLUME				28	

DIRECTION:			OUTBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS	
00:00	0	0	0	0	0	
01:00	0	0	0	0	0	
02:00	0	3	0	0	3	
03:00	0	0	0	0	0	
04:00	0	0	0	0	0	
05:00	0	0	0	0	0	
06:00	0	1	1	0	2	
07:00	1	2	3	2	8	
08:00	1	3	2	3	9	
09:00	3	5	5	3	16	
10:00	5	3	2	2	12	
11:00	3	4	1	0	8	
12:00	9	0	6	3	18	
13:00	3	5	3	7	18	
14:00	7	4	2	2	15	
15:00	6	6	5	2	19	
16:00	7	3	5	6	21	
17:00	5	7	4	5	21	
18:00	5	3	6	10	24	
19:00	3	5	4	3	15	
20:00	2	3	5	3	13	
21:00	2	4	4	2	12	
22:00	2	1	0	0	3	
23:00	0	0	1	0	1	
				TOTAL	238	
AM PEAK HOUR			09:15-10:15			
VOLUME			18			
PM PEAK HOUR			18:00-19:00			
VOLUME				24		

TOTAL BI-DIRECTIONAL VOLUME	454

DATA PROVIDED BY:

Thursday, August 23, 2018

# **DRIVEWAY COUNT - SUMMARY**

- CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
- PROJECT: 5411 WILSHIRE BOULEVARD MIXED-USE PROJECT
- DATE: THURSDAY, AUGUST 23, 2018

**PERIODS:** 07:00 AM TO 10:00 AM

03:00 PM TO 07:00 PM

LOCATIONS: STAPLES DRIVEWAYS - COCHRAN AVENUE (TWO DRIVEWAYS) AND CLOVERDALE AVENUE

	STAPLES DRIVEWAYS (TOTAL) - COCHRAN AVENUE			STAPL	ES DRIVEWAY	CLOVERDALE A	VENUE	
15-MIN	ENTR	ANCE	EXIT		ENTRANCE		EXIT	
PERIOD:	SBLT	NBRT	WBRT	WBLT	SBRT	NBLT	EBRT	EBLT
0700-0715	0	1	1	1	1	1	1	0
0715-0730	1	4	1	1	0	0	0	0
0730-0745	1	3	1	2	1	2	2	0
0745-0800	2	6	1	3	1	1	3	1
0800-0815	2	7	3	6	4	0	0	0
0815-0830	3	9	1	4	0	1	1	4
0830-0845	0	8	3	6	5	2	3	0
0845-0900	2	8	3	5	2	1	3	0
0900-0915	5	7	0	5	3	1	6	1
0915-0930	1	4	5	4	2	2	1	1
0930-0945	6	9	2	4	1	1	4	3
0945-1000	0	8	4	6	1	4	3	2

	STAPLES DRIVEWAYS (TOTAL) - COCHRAN AVENUE			STAPL	ES DRIVEWAY	CLOVERDALE A	VENUE	
15-MIN	ENTR	ANCE	EXIT		ENTRANCE		EXIT	
PERIOD:	SBLT	NBRT	WBRT	WBLT	SBRT	NBLT	EBRT	EBLT
0300-0315	3	8	2	4	0	1	1	1
0315-0330	7	10	5	10	0	2	1	3
0330-0345	4	10	6	6	5	1	5	2
0345-0400	4	9	3	6	1	1	3	2
0400-0415	5	8	1	6	0	1	2	3
0415-0430	5	8	5	3	0	2	2	0
0430-0445	1	13	3	6	0	3	3	0
0445-0500	5	11	3	11	3	2	6	3
0500-0515	4	9	5	6	3	2	5	0
0515-0530	3	8	6	4	1	3	3	3
0530-0545	8	7	8	6	3	0	2	2
0545-0600	4	14	9	9	3	1	10	0
0600-0615	4	11	2	5	0	2	3	1
0615-0630	5	12	7	9	2	3	3	2
0630-0645	4	9	5	5	1	2	6	0
0645-0700	8	8	7	9	1	1	5	1

DATA PROVIDED BY:

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.

**PROJECT:** 5411 WILSHIRE BOULEVARD MIXED-USE PROJECT

LOCATION: STAPLES - COCHRAN AVENUE DRIVEWAYS (TOTAL BOTH DRIVEWAYS)

DATE: THURSDAY, AUGUST 23, 2018

DIRECTION:			INBC	DUND	
TIME					HOUR
BEGINNING	00-15	15-30	30-45	45-60	TOTALS
00:00	2	0	0	0	2
01:00	0	1	0	0	1
02:00	0	0	0	0	0
03:00	0	0	0	0	0
04:00	0	0	0	0	0
05:00	1	0	0	0	1
06:00	1	1	2	4	8
07:00	1	3	7	5	16
08:00	11	16	9	13	49
09:00	14	7	13	9	43
10:00	11	18	16	16	61
11:00	21	15	20	25	81
12:00	16	13	19	21	69
13:00	17	13	13	21	64
14:00	26	10	9	11	56
15:00	14	21	15	18	68
16:00	18	19	20	18	75
17:00	12	13	18	14	57
18:00	13	11	13	12	49
19:00	14	8	10	6	38
20:00	5	6	3	3	17
21:00	2	4	3	4	13
22:00	0	0	2	1	3
23:00	2	0	2	0	4
				TOTAL	775
AM PEAK HOUR				11:00-12:00	)
VOLUME			81		
PM PEAK HOU	JR		15:45-16:45		
VOLUME			75		

DIRECTION:		OUTBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	2	0	0	2
01:00	0	0	3	0	3
02:00	0	0	0	0	0
03:00	0	0	0	0	0
04:00	0	0	0	0	0
05:00	0	0	0	0	0
06:00	0	0	0	2	2
07:00	2	4	8	5	19
08:00	7	10	10	11	38
09:00	10	10	14	11	45
10:00	12	11	9	10	42
11:00	19	17	22	14	72
12:00	17	11	15	17	60
13:00	14	19	13	14	60
14:00	15	14	11	10	50
15:00	7	11	14	15	47
16:00	8	6	10	12	36
17:00	16	9	11	15	51
18:00	10	12	13	15	50
19:00	11	12	17	18	58
20:00	13	12	9	10	44
21:00	6	7	6	5	24
22:00	5	2	2	2	11
23:00	3	2	2	2	9
				TOTAL	723
AM PEAK HOUR			11:00-12:00		
VOLUME			72		
PM PEAK HOUR			12:30-13:30		
VOLUME 65					

TOTAL BI-DIRECTIONAL VOLUME	1,498

DATA PROVIDED BY:

CLIENT:HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.PROJECT:5411 WILSHIRE BOULEVARD MIXED-USE PROJECTLOCATION:STAPLES - CLOVERDALE AVENUE DRIVEWAYDATE:THURSDAY, AUGUST 23, 2018

DIRECTION	:		INBC		
TIME					HOUR
BEGINNING	00-15	15-30	30-45	45-60	TOTALS
00:00	0	0	0	0	0
01:00	0	0	0	0	0
02:00	0	0	0	0	0
03:00	0	0	0	0	0
04:00	0	0	0	0	0
05:00	0	0	0	0	0
06:00	0	0	0	0	0
07:00	1	3	2	3	9
08:00	3	4	6	5	18
09:00	7	3	3	6	19
10:00	3	3	5	6	17
11:00	5	5	2	3	15
12:00	4	0	4	4	12
13:00	2	2	5	1	10
14:00	8	3	4	3	18
15:00	2	4	7	1	14
16:00	3	4	5	6	18
17:00	7	5	2	1	15
18:00	2	3	1	2	8
19:00	3	6	2	4	15
20:00	3	2	2	2	9
21:00	0	1	2	1	4
22:00	0	5	0	0	5
23:00	1	1	0	0	2
				TOTAL	208
AM PEAK HOUR			08:15-09:15		
VOLUME			22		
PM PEAK HOUR			16:30-17:30		
VOLUME			23		

DIRECTION:		OUTBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	1	1	0	2
01:00	0	0	0	0	0
02:00	0	0	0	0	0
03:00	0	0	0	0	0
04:00	0	0	0	0	0
05:00	0	0	0	0	0
06:00	0	0	0	2	2
07:00	0	1	1	5	7
08:00	2	6	5	2	15
09:00	5	4	3	3	15
10:00	4	2	3	2	11
11:00	8	3	2	8	21
12:00	3	7	7	2	19
13:00	7	5	1	3	16
14:00	9	2	5	7	23
15:00	3	7	5	6	21
16:00	3	4	5	7	19
17:00	3	5	6	4	18
18:00	7	6	8	5	26
19:00	5	7	4	0	16
20:00	3	1	0	0	4
21:00	2	1	0	0	3
22:00	0	0	0	0	0
23:00	0	0	3	0	3
				TOTAL	241
			-		
AM PEAK HOUR			11:00-12:00		
VOLUME			21		
PM PEAK HOUR			18:00-19:00		
VOLUME			26		

TOTAL BI-DIRECTIONAL VOLUME	449

DATA PROVIDED BY:

APPENDIX G

PROPOSED PROJECT COMPONENT AND EXISTING ON-SITE USES INTERSECTION-LEVEL TRIP ASSIGNMENT PERCENTAGES



G-1











**APPENDIX H** 

PROPOSED PROJECT AND EXISTING ON-SITE USES INDIVIDUAL COMPONENT PEAK HOUR TRAFFIC VOLUMES (AT STUDY INTERSECTIONS AND PROJECT SITE DRIVEWAYS) AM Peak Hour

Proposed Project Residential Component







9/27/2021



Proposed Project Commercial Component



1/20/2022




5411 WILSHIRE (2020 PROJECT) \ PROJVOLS (COMM) (TOTAL) - AM

Existing On-Site Uses



9/27/2021



**PM Peak Hour** 

Proposed Project Residential Component



9/27/2021





4/22/2022



Proposed Project Commercial Component



4/20/2022





H-9

Existing On-Site Uses



9/27/2021



APPENDIX I

RELATED PROJECTS DESCRIPTIONS AND TRIP GENERATION ESTIMATES AND TRAFFIC VOLUMES AT STUDY INTERSECTIONS

# Table I-1688 S. Cochran Avenue Mixed-Use ProjectRelated Projects Descriptions and Trip Generation Estimates

Мар				AI		AM Peak Hour		PM Peak I		lour
No.	Land Use/Description	Size/Units	Address	Daily	In	Out	Total	In	Out	Total
1.	<u>Mixed-Use</u> Apartments Retail	40 units 4,000 sq. ft.	850 S. La Brea Avenue	458	6	18	24	24	18	42
2.	Apartments (High Rise)	285 units	5757 W. Wilshire Boulevard	1,198	20	59	79	57	37	94
3.	Apartments	49 units	5891 W. Olypic Boulevard	326	5	20	25	20	10	30
4.	LACMA Renovations	750 visitors	5905 W. Wilshire Boulevard	668	43	2	45	15	53	68
5.	<u>Mixed-Use</u> Apartments Retail	67 units 2,400 sq. ft.	1180 S. La Brea Avenue	558	16	26	42	29	18	47
6.	Mixed-Use <sup>[1]</sup> Apartments Retail Restaurant Supermarket	380 units 77,550 sq. ft. 18,432 sq. ft. 64,198 sq. ft.	6300 W. 3rd Street	836	50	151	201	85	0	85
7.	Academy Museum of <u>Motion Pictures</u> Visitors Employees Retail Restaurant	5,000 persons 135 persons 5,000 sq. ft. 4,000 sq. ft.	6067 W. Wilshire Boulevard	2,693	0	0	0	56	261	317
8.	Surgical Hospital	46,026 sq. ft.	6000 W. San Vicente Boulevard	392	14	7	21	8	15	23
9.	Mixed-Use Apartments Retail	181 units 2,653 sq. ft.	800 S. Fairfax Avenue	862	27	46	73	48	31	79
10.	Mixed-Use Apartments Retail	243 units 10,900 sq. ft.	5001 W. Wilshire Boulevard	229	7	49	56	1	(25)	(24)
11.	Apartments	175 units	5500 W. Wilshire Boulevard	842	12	49	61	52	28	80
12.	<u>Mixed-Use</u> Market-Rate Apartments Affordable Apartments Retail Restaurants	146 units 14 units 10,000 sq. ft. 10,000 sq. ft.	627 - 667 S. La Brea Avenue	895	42	59	101	47	20	67
13.	<u>Mixed Use</u> Apartments Retail	60 units 5,350 sq. ft.	5863 W. 3rd Street	492	2	25	27	34	13	47
14.	<u>Mixed Use</u> Apartments Retail	138 units 12,550 sq. ft.	5100 W. Wilshire Boulevard	1,484	21	54	75	72	53	125
15.	<u>Mixed-Use</u> Apartments Single-Family Residential Office	65 units 16 units 62,152 sq. ft.	4680 W. Wilshire Boulevard	923	57	31	88	27	71	98

Sources:

All project descriptions and trip generation information provided by LADOT Case Logging and Tracking System ("CLATS") unless otherwise noted.

[1] Transportation Impact Study MOU for Proposed Third & Fairfax Mixed-Use Development, April 2018, Linscott, Law & Greenspan.



10/27/2021

5411 WILSHIRE (2020 PROJECT) \ RELPROJ-AMPM



688 S. COCHRAN AVENUE RELATED PROJECTS TRAFFIC VOLUMES AM AND PM PEAK HOURS APPENDIX J

STUDY INTERSECTION GEOMETRICS/CONTROLS AND STUDY INTERSECTION AND STREET SEGMENT TRAFFIC COUNT DATA SHEETS 5411 WILSHIRE (2020 PROJECT) \ CONFIGS



**15-Minute Format Intersection Traffic Counts** 

AM Peak Hour

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT:		5411 WILSHIRE BOULEVARD MIXED-USE PROJECT
DATE:		WEDNESDAY, AUGUST 22, 2018
PERIOD:		07:00 AM TO 10:00 AM
INTERSECTION:	N/S	COCHRAN AVENUE
	E/W	WILSHIRE BOULEVARD

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	6	17	1	4	206	3	3	23	1	2	62	4
0715-0730	8	23	4	6	232	2	7	26	4	8	133	4
0730-0745	12	23	3	5	271	6	11	22	7	5	191	6
0745-0800	12	31	3	9	253	3	6	39	9	8	165	7
0800-0815	15	36	3	11	291	3	9	45	14	5	161	12
0815-0830	20	32	3	10	288	2	9	28	7	2	143	7
0830-0845	30	40	4	9	302	2	8	34	11	4	187	7
0845-0900	29	41	3	10	299	3	6	40	12	2	148	8
0900-0915	20	40	5	13	290	3	14	59	6	6	149	13
0915-0930	25	36	10	10	251	4	8	60	10	7	172	9
0930-0945	26	38	8	13	216	1	9	46	14	5	153	10
0945-1000	13	29	5	15	230	3	5	38	13	5	121	6

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0700-0800	38	94	11	24	962	14	27	110	21	23	551	21	1896
0715-0815	47	113	13	31	1047	14	33	132	34	26	650	29	2169
0730-0830	59	122	12	35	1103	14	35	134	37	20	660	32	2263
0745-0845	77	139	13	39	1134	10	32	146	41	19	656	33	2339
0800-0900	94	149	13	40	1180	10	32	147	44	13	639	34	2395
0815-0915	99	153	15	42	1179	10	37	161	36	14	627	35	2408
0830-0930	104	157	22	42	1142	12	36	193	39	19	656	37	2459
0845-0945	100	155	26	46	1056	11	37	205	42	20	622	40	2360
0900-1000	84	143	28	51	987	11	36	203	43	23	595	38	2242





COCHRAN AVENUE

DATA PROVIDED BY:

THE TRAFFIC SOLUTION 9 ALTA STREET, UNIT E ARCADIA, CALIFORNIA 91006 PH: (626) 446-7978 TRAFSOLUTN@AOL.COM

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT:		5411 WILSHIRE BOULEVARD MIXED-USE PROJECT
DATE:		WEDNESDAY, AUGUST 22, 2018
PERIOD:		07:00 AM TO 10:00 AM
INTERSECTION:	N/S	CLOVERDALE AVENUE
	E/W	WILSHIRE BOULEVARD

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	8	5	1	3	245	2	1	1	0	1	88	0
0715-0730	7	5	1	1	227	3	3	2	3	1	141	2
0730-0745	14	9	3	2	236	1	4	3	2	2	157	1
0745-0800	8	5	4	3	257	2	6	8	4	1	198	3
0800-0815	12	7	2	5	280	6	4	5	6	2	156	1
0815-0830	10	9	2	6	306	5	9	2	3	4	191	2
0830-0845	15	11	4	3	300	3	7	3	5	8	169	1
0845-0900	18	6	2	2	289	8	12	4	3	6	150	2
0900-0915	19	9	4	1	275	6	11	2	4	9	166	1
0915-0930	19	9	4	4	235	6	7	6	5	8	159	2
0930-0945	11	10	8	4	216	8	9	6	5	7	153	1
0945-1000	10	15	6	4	263	5	13	2	9	8	155	2

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0700-0800	37	24	9	9	965	8	14	14	9	5	584	6	1684
0715-0815	41	26	10	11	1000	12	17	18	15	6	652	7	1815
0730-0830	44	30	11	16	1079	14	23	18	15	9	702	7	1968
0745-0845	45	32	12	17	1143	16	26	18	18	15	714	7	2063
0800-0900	55	33	10	16	1175	22	32	14	17	20	666	6	2066
0815-0915	62	35	12	12	1170	22	39	11	15	27	676	6	2087
0830-0930	71	35	14	10	1099	23	37	15	17	31	644	6	2002
0845-0945	67	34	18	11	1015	28	39	18	17	30	628	6	1911
0900-1000	59	43	22	13	989	25	40	16	23	32	633	6	1901



CLOVERDALE AVENUE

DATA PROVIDED BY:

THE TRAFFIC SOLUTION 9 ALTA STREET, UNIT E ARCADIA, CALIFORNIA 91006 PH: (626) 446-7978 TRAFSOLUTN@AOL.COM **PM Peak Hour** 

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT:		5411 WILSHIRE BOULEVARD MIXED-USE PROJECT
DATE:		WEDNESDAY, AUGUST 22, 2018
PERIOD:		03:00 PM TO 07:00 PM
INTERSECTION:	N/S	COCHRAN AVENUE
	E/W	WILSHIRE BOULEVARD

<b>15 MINUTE</b>	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0300-0315	20	37	9	17	153	4	12	28	4	8	244	15
0315-0330	22	48	6	11	152	3	14	28	7	10	282	19
0330-0345	17	44	12	6	138	2	8	36	5	15	251	11
0345-0400	20	45	13	7	142	5	9	39	6	15	267	14
0400-0415	18	48	12	8	125	3	13	38	7	9	291	12
0415-0430	24	46	6	12	169	6	19	42	5	16	293	11
0430-0445	22	49	5	10	133	10	12	48	7	18	300	16
0445-0500	20	47	8	9	136	11	10	31	8	12	317	17
0500-0515	32	43	3	5	140	6	8	41	12	18	284	15
0515-0530	27	49	2	5	164	9	15	53	9	10	321	21
0530-0545	18	51	8	4	133	7	17	48	8	14	318	20
0545-0600	23	44	5	4	165	6	19	53	9	8	305	16
0600-0615	29	55	8	6	166	4	19	56	5	11	313	16
0615-0630	23	41	10	6	169	8	11	61	9	8	316	19
0630-0645	17	51	13	5	149	5	13	57	11	10	303	19
0645-0700	23	37	7	8	126	5	15	53	5	10	311	12

													_
1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0300-0315	79	174	40	41	585	14	43	131	22	48	1044	59	2280
0315-0330	77	185	43	32	557	13	44	141	25	49	1091	56	2313
0330-0345	79	183	43	33	574	16	49	155	23	55	1102	48	2360
0345-0400	84	188	36	37	569	24	53	167	25	58	1151	53	2445
0400-0415	84	190	31	39	563	30	54	159	27	55	1201	56	2489
0415-0515	98	185	22	36	578	33	49	162	32	64	1194	59	2512
0430-0530	101	188	18	29	573	36	45	173	36	58	1222	69	2548
0445-0545	97	190	21	23	573	33	50	173	37	54	1240	73	2564
0500-0600	100	187	18	18	602	28	59	195	38	50	1228	72	2595
0515-0615	97	199	23	19	628	26	70	210	31	43	1257	73	2676
0530-0630	93	191	31	20	633	25	66	218	31	41	1252	71	2672
0545-0645	92	191	36	21	649	23	62	227	34	37	1237	70	2679
0600-0700	92	184	38	25	610	22	58	227	30	39	1243	66	2634



9 ALTA STREET, UNIT E ARCADIA, CALIFORNIA 91006 PH: (626) 446-7978 TRAFSOLUTN@AOL.COM

COCHRAN AVENUE

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

 CLIENT:
 HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.

 PROJECT:
 5411 WILSHIRE BOULEVARD MIXED-USE PROJECT

 DATE:
 WEDNESDAY, AUGUST 22, 2018

 PERIOD:
 03:00 PM TO 07:00 PM

 INTERSECTION:
 N/S
 CLOVERDALE AVENUE

 E/W
 WILSHIRE BOULEVARD

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0300-0315	8	8	4	5	141	6	5	3	6	7	248	3
0315-0330	9	11	6	5	151	4	4	2	2	8	243	5
0330-0345	9	12	6	4	165	2	5	4	4	13	288	10
0345-0400	10	14	8	7	124	3	8	8	2	16	296	6
0400-0415	9	12	7	10	137	6	13	8	4	14	274	7
0415-0430	13	13	4	5	149	2	10	6	5	9	290	4
0430-0445	11	12	4	4	162	6	12	10	3	10	293	7
0445-0500	10	9	6	7	150	2	8	5	2	5	334	3
0500-0515	11	10	3	5	132	6	11	3	4	5	285	2
0515-0530	8	8	4	4	164	6	6	5	3	8	330	2
0530-0545	13	14	7	6	123	7	9	6	4	13	322	4
0545-0600	13	19	6	4	182	4	7	5	2	12	327	6
0600-0615	10	19	5	6	165	3	11	7	4	14	299	8
0615-0630	12	15	5	10	156	6	17	13	6	13	318	9
0630-0645	8	17	4	7	145	8	10	8	5	14	296	7
0645-0700	9	10	8	4	151	1	10	12	2	8	326	4

													_
1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0300-0315	36	45	24	21	581	15	22	17	14	44	1075	24	1918
0315-0330	37	49	27	26	577	15	30	22	12	51	1101	28	1975
0330-0345	41	51	25	26	575	13	36	26	15	52	1148	27	2035
0345-0400	43	51	23	26	572	17	43	32	14	49	1153	24	2047
0400-0415	43	46	21	26	598	16	43	29	14	38	1191	21	2086
0415-0515	45	44	17	21	593	16	41	24	14	29	1202	16	2062
0430-0530	40	39	17	20	608	20	37	23	12	28	1242	14	2100
0445-0545	42	41	20	22	569	21	34	19	13	31	1271	11	2094
0500-0600	45	51	20	19	601	23	33	19	13	38	1264	14	2140
0515-0615	44	60	22	20	634	20	33	23	13	47	1278	20	2214
0530-0630	48	67	23	26	626	20	44	31	16	52	1266	27	2246
0545-0645	43	70	20	27	648	21	45	33	17	53	1240	30	2247
0600-0700	39	61	22	27	617	18	48	40	17	49	1239	28	2205

P.M. PEAK HOUR 0545-0645 3 WILSHIRE BOULEVARD 124



DATA PROVIDED BY:

THE TRAFFIC SOLUTION 9 ALTA STREET, UNIT E ARCADIA, CALIFORNIA 91006 PH: (626) 446-7978 TRAFSOLUTN@AOL.COM

CLOVERDALE AVENUE

LADOT Format Intersection Traffic Counts

# **TRAFFIC COUNT SUMMARY**

STREET: North/South COCHRAN AVENUE

City of Los Angeles Department of Transportation Count by: The Traffic Solution

WILSHIRE BOULEVARD East/West

Day: AM PM Hours:	WEDNESDAY WEDNESDAY 7-10 AM 4-7 PM	M	Date: August 22 August 22	2, 2018 2, 2018	Weathe	er:	CLEAR	
School Day:	YES		District:	CENTRAL				
DUAL	N/B		S/B		E/B		W/B	
WHEELED	N/A		N/A		N/A		N/A	
BIKES	N/A		N/A		N/A		N/A	
BUSES	N/A		N/A		N/A		N/A	
	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	79	9:00	74	8:30	202	7:30	313	8:30
PM PK 15 MIN	81	5:45	92	6:00	352	5:15	187	4:15
AM PK HOUR	284	8:45	283	8:30	712	7:30	1,231	8:15
PM PK HOUR	323	5:45	319	5:15	1,373	5:15	693	5:45

### NORTHBOUND Approach

Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	N-S	Ped Sch	Ped Sch
7 - 8	21	110	27	158	7 - 8	11	94	38	143	301	N/A N/A	N/A N/A
8 - 9	44	147	32	223	8 - 9	13	149	94	256	479	N/A N/A	N/A N/A
9 - 10	43	203	36	282	9 - 10	28	143	84	255	537	N/A N/A	N/A N/A
4 - 5	27	159	54	240	4 - 5	31	190	84	305	545	N/A N/A	N/A N/A
5 - 6	38	195	59	292	5 - 6	18	187	100	305	597	N/A N/A	N/A N/A
6 - 7	30	227	58	315	6 - 7	38	184	92	314	629	N/A N/A	N/A N/A
TOTAL	203	1,041	266	1,510	TOTAL	139	947	492	1,578	3,088	N/A N/A	N/A N/A
EASTBOUND	) Approach				WESTBOUN	ID Approa	ch			TOTAL	XING W/L	XING E/L

115 4,904 197

TOTAL

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7 - 8	21	551	23	595
8 - 9	34	639	13	686
9 - 10	38	595	23	656
4 - 5	56	1,201	55	1,312
5 - 6	72	1,228	50	1,350
6 - 7	66	1,243	39	1,348
TOTAL	287	5,457	203	5,947

38	184	92	314	629	N/A N/A	N/A N/A
139	947	492	1,578	3,088	N/A N/A	N/A N/A
D Approa	ach			TOTAL	XING W/L	XING E/L
Lt	Th	Rt	Total	E-W	Ped Sch	Ped Sch
14	962	24	1,000	1,595	N/A N/A	N/A N/A
10	1,180	40	1,230	1,916	N/A N/A	N/A N/A
11	987	51	1,049	1,705	N/A N/A	N/A N/A
30	563	39	632	1,944	N/A N/A	N/A N/A
28	602	18	648	1,998	N/A N/A	N/A N/A
22	610	25	657	2.005	N/A N/A	N/A N/A
	38 139 D Approx Lt 14 10 11 30 28 22	38         184           139         947           D Approach         14           14         962           10         1,180           11         987           30         563           28         602           22         610	38         184         92           139         947         492           D Approach         14         962         24           10         1,180         40         11         987         51           30         563         39         28         602         18           22         610         25         18         18	38         184         92         314           139         947         492         1,578           D Approach	38       184       92       314       629         139       947       492       1,578       3,088         D Approach       TOTAL         Lt       Th       Rt       Total       E-W         14       962       24       1,000       1,595         10       1,180       40       1,230       1,916         11       987       51       1,049       1,705         30       563       39       632       1,944         28       602       18       648       1,998         22       610       25       657       2,005	38         184         92         314         629         N/A         N/A           139         947         492         1,578         3,088         N/A         N/A           D Approach         TOTAL         XING W/L           Lt         Th         Rt         Total         E-W         Ped Sch           14         962         24         1,000         1,595         N/A         N/A           10         1,180         40         1,230         1,916         N/A         N/A           11         987         51         1,049         1,705         N/A         N/A           30         563         39         632         1,944         N/A         N/A           28         602         18         648         1,998         N/A         N/A           22         610         25         657         2,005         N/A         N/A

5,216

TOTAL

11,163

XING S/L

N/A N/A

XING N/L

N/A N/A

# TRAFFIC COUNT SUMMARY

City of Los Angeles Department of Transportation Count by: The Traffic Solution

# STREET: CLOVERDALE AVENUE

East/West WILSHIRE BOULEVARD

Day: AM PM Hours:	WEDNESDAY WEDNESDAY 7-10 AM 4-7 PM	<u></u>	Date: August 22 August 22	2, 2018 2, 2018	Weathe	r: <u>(</u>	CLEAR	
School Day:	YES		District:	CENTRAL				
	N/B		S/B		E/B		W/B	
WHEELED	N/A		N/A		N/A		N/A	
BIKES	N/A		N/A		N/A		N/A	
BUSES	N/A		N/A		N/A		N/A	
	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	24	9:45	32	9:00	202	7:45	317	8:15
PM PK 15 MIN	36	6:15	38	5:45	345	5:45	190	5:45
AM PK HOUR	79	9:00	124	9:00	736	7:45	1,213	8:00
PM PK HOUR	105	6:00	138	5:30	1,345	5:15	696	5:45

TOTAL

112 4,945 110

#### NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7 - 8	9	14	14	37
8 - 9	17	14	32	63
9 - 10	23	16	40	79
4 - 5	14	29	43	86
5 - 6	13	19	33	65
6 - 7	17	40	48	105
TOTAL	93	132	210	435

### EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7 - 8	6	584	5	595
8 - 9	6	666	20	692
9 - 10	6	633	32	671
4 - 5	21	1,191	38	1,250
5 - 6	14	1,264	38	1,316
6 - 7	28	1,239	49	1,316
TOTAL	81	5,577	182	5,840

SOUTHBOUN	ID Appro	oach			TOTAL	XING S/L	XING N/L
Hours	Lt	Th	Rt	Total	N-S	Ped Sch	Ped Sch
7 - 8	9	24	37	70	107	N/A N/A	N/A N/A
8 - 9	10	33	55	98	161	N/A N/A	N/A N/A
9 - 10	22	43	59	124	203	N/A N/A	N/A N/A
4 - 5	21	46	43	110	196	N/A N/A	N/A N/A
5 - 6	20	51	45	116	181	N/A N/A	N/A N/A
6 - 7	22	61	39	122	227	N/A N/A	N/A N/A
TOTAL	104	258	278	640	1,075	N/A N/A	N/A N/A
WESTBOUND	) Approa	ach			TOTAL	XING W/L	XING E/L
Hours	Lt	Th	Rt	Total	E-W	Ped Sch	Ped Sch
7 - 8	8	965	9	982	1,577	N/A N/A	N/A N/A
8 - 9	22	1,175	16	1,213	1,905	N/A N/A	N/A N/A
9 - 10	25	989	13	1,027	1,698	N/A N/A	N/A N/A
4 - 5	16	598	26	640	1,890	N/A N/A	N/A N/A
5 - 6	23	601	19	643	1,959	N/A N/A	N/A N/A
6 - 7	18	617	27	662	1,978	N/A N/A	N/A N/A

5,167

11,007

N/A N/A

N/A N/A

Street Segment "Daily" (24-Hour) Count Data Sheets

# THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT:HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.PROJECT:5411 WILSHIRE BOULEVARD MIXED-USE PROJECTLOCATION:COCHRAN AVENUE BETWEEN PROJECT SITE AND 6<sup>th</sup> STREETDATE:TUESDAY, AUGUST 21, 2018

DIRECTIO	N:		NORTHBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS	
00:00	7	5	6	4	22	
01:00	5	2	3	3	13	
02:00	6	4	1	2	13	
03:00	3	1	0	1	5	
04:00	1	2	1	1	5	
05:00	4	0	6	8	18	
06:00	7	4	17	19	47	
07:00	28	28	37	67	160	
08:00	85	77	63	61	286	
09:00	69	86	84	59	298	
10:00	57	52	59	62	230	
11:00	55	50	56	52	213	
12:00	46	38	56	52	192	
13:00	51	54	59	47	211	
14:00	49	47	63	60	219	
15:00	66	68	60	60	254	
16:00	50	64	75	62	251	
17:00	53	61	68	51	233	
18:00	73	60	67	62	262	
19:00	50	55	48	41	194	
20:00	29	28	23	25	105	
21:00	24	20	20	21	85	
22:00	17	11	24	16	68	
23:00	14	6	14	6	40	
				TOTAL	3,424	
AM PEAK	HOUR		(	08:45-09:4	5	
VOLUME				300		
PM PEAK	HOUR			18:00-19:00	0	
VOLUME				262		

DIRECTIO	N:		SOUTHBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS	
00:00	11	3	3	5	22	
01:00	3	1	0	1	5	
02:00	2	1	1	1	5	
03:00	3	1	0	1	5	
04:00	1	0	1	0	2	
05:00	2	2	5	4	13	
06:00	4	4	7	11	26	
07:00	24	32	42	55	153	
08:00	65	36	56	73	230	
09:00	56	58	66	63	243	
10:00	60	48	49	40	197	
11:00	42	45	56	42	185	
12:00	62	38	36	46	182	
13:00	54	40	53	50	197	
14:00	48	56	52	78	234	
15:00	53	58	68	54	233	
16:00	65	68	73	67	273	
17:00	67	75	86	83	311	
18:00	76	78	83	68	305	
19:00	75	70	70	52	267	
20:00	51	43	27	29	150	
21:00	28	27	21	25	101	
22:00	6	9	20	14	49	
23:00	14	7	7	3	31	
				TOTAL	3,419	
AM PEAK	HOUR		(	08:45-09:4	5	
VOLUME			253			
PM PEAK	HOUR		17:30-18:30			
VOLUME				323		

TOTAL BI-DIRECTIONAL VOLUME	6,843
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DATA PROVIDED BY:

THE TRAFFIC SOLUTION 9 ALTA STREET, UNIT E ARCADIA, CALIFORNIA 91006 PH: (626) 446-7978 TRAFSOLUTN@AOL.COM

# THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT:HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.PROJECT:5411 WILSHIRE BOULEVARD MIXED-USE PROJECTLOCATION:CLOVERDALE AVENUE BETWEEN PROJECT SITE AND 6<sup>th</sup> STREETDATE:TUESDAY, AUGUST 21, 2018

DIRECTIO	N:		NORTHBOUND			
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS	
00:00	4	3	6	0	13	
01:00	0	0	0	1	1	
02:00	1	0	1	6	8	
03:00	4	1	0	0	5	
04:00	0	1	2	0	3	
05:00	2	1	3	5	11	
06:00	2	3	4	10	19	
07:00	12	18	14	22	66	
08:00	43	32	28	41	144	
09:00	32	27	29	24	112	
10:00	23	15	16	18	72	
11:00	29	18	12	16	75	
12:00	14	16	17	18	65	
13:00	27	15	12	29	83	
14:00	31	13	22	22	88	
15:00	15	18	16	20	69	
16:00	24	27	22	17	90	
17:00	19	22	21	23	85	
18:00	23	28	20	25	96	
19:00	19	15	13	19	66	
20:00	16	18	15	10	59	
21:00	12	13	8	13	46	
22:00	14	6	7	10	37	
23:00	6	6	5	6	23	
				TOTAL	1,336	
AM PEAK	HOUR		(	08:00-09:00	0	
VOLUME				144		
PM PEAK	HOUR			18:00-19:00		
VOLUME				96		

DIRECTIO	N:	SOUTHBOUND									
TIME BEGINNING	00-15	15-30	30-45	45-60	HOUR TOTALS						
00:00	2	2	2	0	6						
01:00	1	0	0	2	3						
02:00	0	0	0	3	3						
03:00	4	1	0	0	5						
04:00	0	0	1	0	1						
05:00	3	1	2	2	8						
06:00	2	1	2	5	10						
07:00	7	4	8	13	32						
08:00	11	11	8	10	40						
09:00	14	8	16	14	52						
10:00	13	10	16	14	53						
11:00	6	7	10	8	31						
12:00	11	13	12	9	45						
13:00	9	10	13	13	45						
14:00	15	14	14	16	59						
15:00	15	18	13	22	68						
16:00	18	22	11	18	69						
17:00	12	16	15	21	64						
18:00	14	16	23	18	71						
19:00	17	14	16	20	67						
20:00	18	12	9	5	44						
21:00	17	5	7	3	32						
22:00	12	5	6	6	29						
23:00	4	1	2	1	8						
			TOTAL 845								
AM PEAK	HOUR		09:30-10:30								
VOLUME			53								
PM PEAK	HOUR			17:45-18:4	5						
VOLUME			74								

TOTAL BI-DIRECTIONAL VOLUME	2,181
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DATA PROVIDED BY:

THE TRAFFIC SOLUTION 9 ALTA STREET, UNIT E ARCADIA, CALIFORNIA 91006 PH: (626) 446-7978 TRAFSOLUTN@AOL.COM APPENDIX K

HIGHWAY CAPACITY MANUAL ("HCM") INTERSECTION ANALYSIS CALCULATION WORKSHEETS Existing (2021) Conditions

AM Peak Hour

## HCS7 Signalized Intersection Results Summary

General Information										ersect	ion Info	y at yukha t ta lu					
Agency							Duration h			0.250			*				
Analyst				Analysis Date Sen 2			7. 2021		Are	ea Type	<u>,</u>	Other		 		د. م	
Jurisdiction	n			Time Period AM			ak Hou	ır						⇒→	w‡e	<b>↓</b>	
Urban Street Wilshire Boulevard		Analys	is Yea	r 2021	Salt Hoe		An	 alvsis I	Period	1> 7.(	00	A A					
Intersection Cochran Avenue			File Na	ame	(EX-20)	21-W	(0) -	- AM xii	s			┤҇─┓					
Project Descrip	tion	Existing (2021) W/C	Proiec	t no ru												× ا <sup>م</sup>	
r rojoot Dooonp			T Tojoo														
Demand Inform	nation			EB			V		NB		NE				SB		
Approach Movement				L	Т	R	L		Т	R	L T		R	L	Т	T R	
Demand ( v ), v	eh/h			37	656	19	12	11	42	42	39	193	36	22	157	104	
					-			_				_				-	
Signal Informa	tion			ی ا		9215										$\mathbf{A}$	
Cycle, s	120.0	Reference Phase	2		R '	- Sti	7						1		3	3 4	
Offset, s	0	Reference Point	End	Green	66.0	21.8	20.2	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	_				Ý	
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.	0	0.0	0.0		5	6	7	8	
Timor Populto			_	EDI		EDT			MDT		NDI			CDI		CDT	
Assigned Phase	0			EDL	•	2				6	NDL	-	R R	30	-	1	
Case Number	6					50		$\rightarrow$	5	50			12.0			+ 12.0	
Phase Duration						70.0				0.0		24.2		<u> </u>		25.8	
Change Period (V+P .) s					4.0				L O			4.0			4.0		
Max Allow Headway (MAH) s						0.0	_		0.0				3.1			3.2	
Queue Clearan	ce Time	( q s ), S										19.8				21.5	
Green Extensio	n Time	(ge),s		0.0		0.0		).0	0.4		0.4			0.3			
Phase Call Pro	bability												1.00			1.00	
Max Out Proba	bility									0.00				0.35			
Movement Group Results				EB			W	B	_		NB			SB			
Approach Move	ement			L	Т	R		T	_	R	L	T	R		T	R	
Assigned Move	ment	<u> </u>		5	2	12	1	6		16	3	8	18	1	4	14	
Adjusted Flow I	Kate (V	), ven/n		39	683	20	13	119		44		279		<u> </u>	295		
Adjusted Satura		w Rate (s), ven/n/li	1	4/8	1809	1610	110	180	.9 .7	1610		1842			1776		
Queue Service		f(s), S		7.1 22.5	12.0	0.7	1.1	20.	5	1.5		17.0			19.5		
Cycle Queue C		e nine ( <i>g</i> c), s		0.55	0.55	0.7	0.55	20.	5	0.55		0.17		<u> </u>	19.5		
Green Kato (g	/0) /eh/h			218	1080	885	403	10.5	20	885		310			323		
Volume to Canacity Patie (X)			_	0 177	0 344	0.022	0.031	0.50	98 0 049		_	0.900			0.914		
Back of Queue ( $\Omega$ ) ft/ln (50 th percentile)			22.8	128.5	6.3	5.3	273	2 14			226.6			261.9			
Back of Queue	(Q), ve	eh/In ( 50 th percentil	e)	0.9	5.1	0.3	0.2	10.	9	0.6		9.1			10.5		
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)			0.00	0.00	0.00	0.00	0.0	0	0.00		0.00			0.00			
Uniform Delay ( <i>d</i> 1), s/veh			29.4	15.0	12.3	18.8	18.	1	12.5		48.9			48.2			
Incremental Delay ( <i>d</i> ₂ ), s/veh			1.8	0.5	0.0	0.1	1.3	3	0.1		11.2			21.6			
Initial Queue Delay ( d ȝ ), s/veh			0.0	0.0	0.0	0.0	0.0	5	0.0		0.0			0.0			
Control Delay ( <i>d</i> ), s/veh			31.1	15.5	12.4	18.9	19.	4	12.6		60.1			69.8			
Level of Service (LOS)			СВ		В	ВВ		3 B		E				Е			
Approach Delay, s/veh / LOS			16.2	2	В	19.2		В		60.1 E		69.8 E		E			
Intersection Delay, s/veh / LOS						28	3.6							С			
Multimodal Results					EB			W		VB		NB			SB	SB	
Pedestrian LOS	S Score	/LOS		1.67		В	1.67	<b>7</b>		В	2.48		B 2		<u>}</u>	В	
Bicycle LOS Score / LOS			1.10		А	1.52	2		B	0.95		A	0.97	·	A		

## **HCS7 Signalized Intersection Results Summary**

General Information										ersect	ion Infe	K	4,44+,	ja l <sub>a</sub>					
Agency							Duration h			0.250	0.250		*						
Analyst					Analysis Date Se				Are	ea Type	<i>د</i> 	Other		 		بر ک <sup>ر</sup>			
Jurisdiction					Period					рне			0.95		w‡e	<b>↓</b>			
Urban Street	t Wilshire Boulevard			Analys	is Yea	r 2021			An	 alvsis F	Period	1> 7.(	00						
Intersection Cloverdale Avenue			File Na	ame	Int #2				AM XII	s									
Project Descrip	tion	Existing (2021) W/C	) Projec	t no ru											¶ ≼↑⇔∀°	م م			
r rojoot Dooonp			, i rejec																
Demand Inform	nation			EB			V		NB		NB				SB				
Approach Movement				L	L T R		L		Т	R	L	T R		L	Т	T R			
Demand ( v ), v	eh/h			6	676	27	22	11	70	12	15	11	39	12	35	62			
O'read hafe mar	4!			<b></b>	_		_					_				-			
Signal Informa		Defense Dhees	0			212													
Cycle, s	120.0	Reference Phase	Z		<b>F</b> '	1 Stř	7						1		3	3 4			
Offset, s	0	Reference Point	Ena	Green	92.0	9.8	6.2	0.	0	0.0	0.0								
	NO	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	0.	0.0 0.0		0.0	.0			_	Ŷ			
Force Mode	Fixed	Simult. Gap N/S	On	Rea	0.0	0.0	0.0	0.	0	0.0	0.0		5	6	7	8			
Timer Results			_	EBI		FBT	WB	1	W	/BT	NBI		NBT	SBI		SBT			
Assigned Phase	<u>م</u>		_			2				6			8		-				
Case Number	<u> </u>					5.0							12.0			12.0			
Phase Duration	. S					96.0		-	96	6.0			10.2			13.8			
Change Period $(Y+R_c)$ s					4.0				1.0		4.0				4.0				
Max Allow Headway ( MAH ), s					0.0				0.0			3.3			3.2				
Queue Clearan	ce Time	(gs), s											6.8			9.9			
Green Extension Time ( $g_e$ ), s				0.0		0.0		0.0	0.1		0.1			0.2					
Phase Call Pro	bability							0.90				0.98							
Max Out Proba	bility									0.00		0.00			0.00				
Movement Gra		ulte			ED			\٨/	D			NR			<b>C</b> B				
Approach Move	mont	uits		1	Т	R	1	Т		R	1	Т	R	1	Т	R			
Approach Nove	ment			5	2	12	1	6	+	16	3	8	18	7	4	14			
Adjusted Flow F	Rate ( v	), veh/h		6	712	28	23	123	32	13	0	68	10	-	115				
Adjusted Satura	ation Flo	w Rate ( s ), veh/h/li	n	460	1809	1610	750	180	)9	1610		1697			1715				
Queue Service	Time ( g	y s ), S		0.6	6.9	0.5	1.1	14.	.5	0.2		4.8			7.9				
Cycle Queue C	learance	e Time ( <i>g</i> c ), s		15.1	6.9	0.5	8.0	14.	.5	0.2		4.8			7.9				
Green Ratio ( g	/C)			0.77	0.77	0.77	0.77	0.7	7	0.77		0.05			0.08				
Capacity ( c ), v	/eh/h			357	2772	1234	592	277	2	1234		88			141				
Volume-to-Cap	acity Ra	tio(X)		0.018	0.257	0.023	0.039	0.44	44 (	0.010	0.781			0.816					
Back of Queue (Q), ft/ln (50 th percentile)				1.6	54	3.7	4.4	114	.5	1.6		54.2			88.7				
Back of Queue	( Q ), ve	eh/In ( 50 th percenti	le)	0.1	2.2	0.1	0.2	4.6	6	0.1		2.2			3.5				
Queue Storage Ratio ( RQ ) ( 50 th percentile)			0.00	0.00	0.00	0.00	0.0	0	0.00		0.00			0.00					
Uniform Delay ( <i>d</i> 1), s/veh			7.6	4.1	3.3	5.2	5.0	0	3.3		56.2			54.2					
Incremental Delay ( <i>d</i> <sub>2</sub> ), s/veh			0.1	0.2	0.0	0.1	0.5	5	0.0		5.6			4.3					
Initial Queue Delay ( <i>d</i> <sub>3</sub> ), s/veh			0.0	0.0	0.0	0.0	0.0	0	0.0		0.0			0.0					
Control Delay ( d ), s/veh			7.7	4.3	3.4	5.4	5.5	5	3.3		61.8			58.5					
Level of Service (LUS)			A	A	A	A A			A 61.9				50 E		E				
Approach Delay, s/veh / LOS			4.3		A	5.5 A		A	61.8		E		)	E					
Intersection Delay, s/veh / LOS						9	.0							A					
Multimodal Results				EB		W		/B		NB			SB						
Pedestrian LOS Score / LOS				1.62	2	В	1.62	2	В		2.48		В	2.47		В			
Bicycle LOS Score / LOS			1.10	1.10 A 1.5		3	В		0.60		А	0.68	3	А					

**PM Peak Hour**
				Tanzo	e int	.01000		.001		oun	iinai j	,				
General Inform	nation								Inter	rsecti	ion Info	ormatic	n	K	at shada t	ta la
Agency	lation	<u> </u>							Dura	ation	h	0 250			*	
Analyst				Analys	is Dat	e Sen 2	7 2021		Area	n Type	ر ۱۰	Other		- <del>- 1</del> - 4		
Jurisdiction				Time F	Period		- - ak Hoi	ır	PHE	Турс	,	0 97		$\rightarrow$ $\rightarrow$ $\rightarrow$	w‡e	
Urban Street		Wilshire Boulevard		Analys	is Yea	r 2021			Analy	vsis F	Period	1> 7.0	0			
Intersection		Cochran Avenue		File Na	ame	Int #1	(EX-20)	21_\//	(O) - P	M YI	s	1. 1.				<u> </u>
Project Descrip	tion	Existing (2021) W/C	) Projec	t no rue				21-00	0)=1	WI.XU	5			-	¥ ****	17 f
r rojoor Beeerip			21 Tojoc													
Demand Inform	nation				EB			Ν	/B			NB			SB	
Approach Move	ement			L	Т	R	L	-	Т	R	L	Т	R	L	Т	R
Demand ( v ), v	eh/h			70	1237	7 37	23	64	49	21	34	227	62	36	191	92
0	1				_			_			_			1	1	
Signal Informa			-			2212										$\mathbf{A}$
Cycle, s	120.0	Reference Phase	2		∣≓ '	1 SA	7						1	<b>\$</b> 2	3	4
Offset, s	0		End	Green	60.5	23.8	23.8	0.	0	0.0	0.0			5		•
Uncoordinated	NO	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	0.0	0	0.0	0.0	-				$\nabla$
Force Mode	Fixed	Simult. Gap N/S	On	Rea	0.0	0.0	0.0	0.0	0 10	0.0	0.0		5	6	7	8
Timor Posults				ERI		EBT	\\/R		\//D	т	NRI			SBI		SBT
Assigned Phase				EDL	-	2	VVD		00D		INDL	·		301	-	4
Case Number	e					5.0		-	5.0	<u> </u>			12.0			4
Phase Duration	Number e Duration, s nge Period, ( Y+R c ), s					64.5		-	64 5	5			27.8			27.8
Change Period	se Duration, s nge Period, ( Y+ <i>R c</i> ), s ( Allow Headway ( <i>MAH</i> ), s					4.0		-	1 0				<u>/ 0</u>			21.0
Max Allow Heat	ange Period, ( Y+R c ), s x Allow Headway ( MAH ), s					0.0		+	0.0	)			3.1			3.1
Queue Clearan	ange Period, ( Y+ <i>R</i> c ), s x Allow Headway ( <i>MAH</i> ), s eue Clearance Time ( <i>g</i> s ), s					0.0		-	0.0				23.4			23.6
Green Extensio	n Time	(ge),s				0.0			0.0	)			0.3			0.2
Phase Call Pro	bability												1.00			1.00
Max Out Proba	bility												0.27			1.00
							_		-							
Movement Gro	oup Res	ults			EB		<u> </u>	WE	B	_		NB	_	<u> </u>	SB	
Approach Move	ement			L		R				R	L		R			R
Assigned Move	ment	<u> </u>		5	2	12	1	6	1	16	3	8	18	1	4	14
Adjusted Flow I	Kate (V	), ven/n		72	1275	38	24	665	9 2	22		333		<u> </u>	329	
Adjusted Satura			n	780	1809	1610	441	180	9 16	510		1827			1/9/	
Queue Service	line (g	f(s), S		7.4	32.4	1.4	0.Z	13.	5 0	0.0		21.4		<u> </u>	21.0	$\left  \right $
Cycle Queue C		e filme ( <i>g</i> c), s		20.9	32.4	1.4	37.0	13.		50		21.4		<u> </u>	21.0	
Green Ratio (g	/0) /oh/h			265	1924	912	163	192		.50		262			256	
Volume_to_Cap	acity Ra	tio (X)		0 107	0 600	0.047	0 145	0.36	37 0 0	027		0.020			0.025	
Back of Queue	(O) ft/	(10(7))		37.2	345 1	13.7	16.2	141	4 7	77		293.6		<u> </u>	300.5	
Back of Queue	(Q), K	eh/ln ( 50 th percenti	le)	1.5	13.8	0.5	0.6	5.7	7 0	).3		11.7			12.0	
Queue Storage	Ratio (	RQ) ( 50 th percent	tile)	0.00	0.00	0.00	0.00	0.0	0 0.	.00		0.00			0.00	
Uniform Delay	(d1), s	/veh		24.5	22.8	15.1	37.2	18.	1 15	5.0		47.2			47.2	
Incremental De	lay ( <i>d</i> 2	), s/veh		1.2	2.3	0.1	1.9	0.6	3 0	).1		21.1			25.4	
Initial Queue De	elay ( d	з), s/veh		0.0	0.0	0.0	0.0	0.0	) 0	0.0		0.0			0.0	
Control Delay (	d ), s/ve	eh		25.7	25.0	15.2	39.1	18.	7 15	5.0		68.3			72.7	
Level of Service	el of Service (LOS)			С	С	В	D	В	E	в		Е			Е	
Approach Delay	proach Delay, s/veh / LOS			24.8	;	С	19.2	2	В		68.3		E	72.7	7	E
Intersection De	lay, s/ve	h / LOS				34	1.3							С		
Multimodal Re	sults				EB			WE	В			NB			SB	
Pedestrian LOS	S Score	/LOS		1.68	;	В	1.68	3	В		2.48		В	2.46	3	В
Bicycle LOS Sc	ore / LC	DS	OS			В	1.08	3	А		1.04		А	1.03	3	А

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HCS™ Streets Version 7.9.5

	aformation				a me	01000			anto	Can	innen j	,				
General Inform	nation								Inte	ersecti	ion Info	ormatio	on	K	4,44,4	ja T <sub>a</sub>
Agency									Dura	ation.	h	0.250			*	
Analyst				Analys	is Date	e Sep 2	7.2021		Area	a Type	<u>,</u>	Other				د م
Jurisdiction				Time F	Period	PM Pe	eak Hou	ır	PHF	F		0.96		- → →	w∔e	↓ ↓
Urban Street		Wilshire Boulevard		Analys	is Yea	2021			Ana	alvsis F	Period	1> 7:0	00			
Intersection		Cloverdale Avenue		File Na	ame	Int #2	(EX-20)	21-W	/O) - F	PM.xu	S				- <b>1</b> -	
Project Descrip	tion	Existing (2021) W/C	) Proiec	:t		[	(_/ = = = = = = = = = = = = = = = = = = =		•, .		-				<u>ተተቀም</u>	۳ <sub>1</sub> ۲
		_/		•												
Demand Inform	nation				EB			N	∕B			NB			SB	
Approach Move	ement			L	Т	R	L	-	Т	R	L	Т	R	L	Т	R
Demand ( v ), v	eh/h			30	1240	53	21	64	48	27	17	33	45	20	70	43
				1 <del></del>	-					1						
Signal Informa	tion					9216								_		$\mathbf{A}$
Cycle, s	120.0	Reference Phase	2		₿*	517	7						1	€₂	3	4
Offset, s	0	Reference Point	End	Green	88.2	11.2	8.6	0.	0	0.0	0.0			5		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	0.	0	0.0	0.0					<b>√</b>
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.	0	0.0	0.0	_	5	6	7	8
										_						
Timer Results				EBL	-	EBT	WB		WE	BT	NBL	-	NBT	SBI	-	SBT
Assigned Phase	e					2		$\rightarrow$	6	3			8		_	4
Case Number	Number Se Duration, s nge Period, ( <i>Y+R</i> c ), s					5.0		$\rightarrow$	5.0	.0			12.0			12.0
Phase Duration	e Number se Duration, s nge Period, ( Y+ <i>R c</i> ), s Allow Headway ( <i>MAH</i> ), s ue Clearance Time ( <i>g s</i> ), s					92.2		$\rightarrow$	92.	2.2			12.6		_	15.2
Change Period	the Number ase Duration, s ange Period, ( $Y+Rc$ ), s (Allow Headway ( $MAH$ ), s the eue Clearance Time ( $gs$ ), s en Extension Time ( $ge$ ), s					4.0		_	4.0	.0			4.0			4.0
Max Allow Head	ase Duration, s ange Period, ( $Y+R_c$ ), s x Allow Headway ( <i>MAH</i> ), s eue Clearance Time ( $g_s$ ), s een Extension Time ( $g_e$ ), s				_	0.0		$\rightarrow$	0.0	.0		_	3.2		_	3.2
Queue Clearan	ase Duration, s ange Period, ( $Y+R c$ ), s x Allow Headway ( $MAH$ ), s eue Clearance Time ( $g s$ ), s een Extension Time ( $g e$ ), s ase Call Probability							$\rightarrow$		_			8.7		_	11.2
Green Extensio	n Time	(ge), s			_	0.0		$\rightarrow$	0.0	.0			0.2			0.2
Phase Call Pro	ange Period, ( $Y+R c$ ), s ax Allow Headway ( $MAH$ ), s neue Clearance Time ( $g s$ ), s een Extension Time ( $g e$ ), s ase Call Probability ax Out Probability							$\rightarrow$		_			0.96		_	0.99
Max Out Proba	bility												0.00			0.00
Movement Gro	oup Res	sults			FB			W	B			NB			SB	_
Approach Move	ement			L	Т	R	L	Т		R	L	Т	R	L	Т	R
Assigned Move	ment			5	2	12	1	6		16	3	8	18	7	4	14
Adjusted Flow I	Rate ( v	), veh/h		31	1292	55	22	67	5	28		99			139	
Adjusted Satura	ation Flo	w Rate ( s ), veh/h/l	n	776	1809	1610	434	180	9 1	1610		1736			1783	
Queue Service	Time ( g	g s ), S		1.6	17.7	1.1	2.6	7.3	3 (	0.6		6.7			9.2	
Cycle Queue C	learance	e Time ( g c ), s		9.0	17.7	1.1	20.3	7.3	3 (	0.6		6.7			9.2	
Green Ratio ( g	/C)			0.73	0.73	0.73	0.73	0.7	3 0	0.73		0.07			0.09	
Capacity ( c ), v	/eh/h			583	2658	1183	315	265	58 1	1183		124			167	
Volume-to-Cap	acity Ra	tio(X)		0.054	0.486	0.047	0.069	0.25	54 0.	.024		0.797			0.829	
Back of Queue	( Q ), ft/	(In ( 50 th percentile)		7	149.9	8.8	7.1	61.	7 4	4.4		76.8			106.4	
Back of Queue	( Q ), ve	eh/In ( 50 th percenti	le)	0.3	6.0	0.4	0.3	2.5	5 (	0.2		3.1			4.3	
Queue Storage	Ratio (	RQ) (50 th percent	ile)	0.00	0.00	0.00	0.00	0.0	0 0	0.00		0.00			0.00	
Uniform Delay	(d1), s/	/veh		6.6	6.6	4.4	10.8	5.2	2 4	4.3		54.9			53.4	
Incremental De	lay ( <i>d</i> 2	), s/veh		0.2	0.6	0.1	0.4	0.2	2 (	0.0		4.4			4.0	
Initial Queue De	elay ( <i>d</i>	з ), s/veh		0.0	0.0	0.0	0.0	0.0	) (	0.0		0.0			0.0	
Control Delay (	d ), s/ve	eh		6.8	7.2	4.4	11.2	5.4	1 4	4.3		59.2			57.4	
Level of Service	l of Service (LOS)			Α	Α	Α	В	Α		Α		Е			Е	
Approach Delay	proach Delay, s/veh / LOS			7.1		А	5.5		A	۹.	59.2	2	E	57.4	-	E
Intersection De	tersection Delay, s/ven / LOS					11	.8							В		
Multimodal Re	sults				EB			W	В			NB			SB	
Pedestrian LOS	S Score	/LOS		1.63	;	В	1.63	3	В	3	2.48	3	В	2.47	7	В
Bicycle LOS So	Score / LOS pre / LOS			1.62	2	В	1.09	)	A	4	0.65	5	А	0.72	2	А

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Future (2027) Without Project Conditions

AM Peak Hour

	r olg	nanze	u int	.01360		1631	uns	Sun	innary	<b>y</b>						
Conoral Inform	action								Into	rooot	ion Infe	rmotia			4	ba lu
General morn	nation	Г							Dur	ersect			5n		4	
Agency				Analys	ia Dat		0 0004		Dur	allon,	n	0.250				K_
Analyst				Analys	as Date	e Sep 2	8, 2021		Area	атуре ⊏	;	Other	-	$\rightarrow$	N W Tr	√_
Jurisdiction		Mileleine Development		Time F	'erioa		еак ног	Ir	PH	F	<b>7</b>	0.96	20		8	← ↓ ↓
Urban Street		Wilshire Boulevard		Analys	is yea	r 2027		0071	Ana		Period	1> 7:0	0			ж. Г
Intersection		Cochran Avenue	<b>D</b> · · ·	File Na	ame	Int #1	(FUT-2	027-	wO) -	- AM.x	us				\$	+- <i>A</i>
Project Descrip	tion	Future (2027) W/O	Project												N   Yr T	
Demand Inform	nation				EB		1	V	٧B		T	NB		1	SB	
Approach Move	ement			L	Т	R	L	T ·	Т	R	L	Т	R	L	T	R
Demand ( v ), v	/eh/h			42	823	20	13	13	337	45	41	205	38	23	167	119
																<u> </u>
Signal Informa	ation					<u> </u>								_		
Cycle, s	120.0	Reference Phase	2		HE !	50	7							<del>(</del> )	3	<b>ĸ</b> ↑ <b>⋊</b>
Offset, s	0	Reference Point	End	Green	63.2	23.6	21.2	0.	0	0.0	0.0	_		<u>x</u>		~
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	0.	0	0.0	0.0					<b>N</b>
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.	0	0.0	0.0		5	6	7	8
															_	
Timer Results				EBL	-	EBT	WB	L	WE	BT	NBL	-	NBT	SBI	-	SBT
Assigned Phas	е					2		$\rightarrow$	6	3			8			4
Case Number						5.0		$\rightarrow$	5.	.0			12.0			12.0
Phase Duration	1, S					67.2		$\rightarrow$	67	'.2			25.2			27.6
Change Period	ange Period, ( <i>Y+R c</i> ), s ix Allow Headway ( <i>MAH</i> ), s					4.0			4.	.0			4.0			4.0
Max Allow Hea	ax Allow Headway ( $MAH$ ), s					0.0			0.	.0			3.1			3.2
Queue Clearan	ax Allow Headway ( <i>MAH</i> ), s ueue Clearance Time ( <i>g</i> s ), s												20.9			23.4
Green Extensio	on Time	(ge),s				0.0		$ \rightarrow $	0.	.0			0.4			0.2
Phase Call Pro	bability												1.00			1.00
Max Out Proba	bility												0.03			1.00
Movement Gr					ED			۱۸/	D			ND			CD.	_
Approach Move	mont	Suits			ЕВ	P	1	Т		P	1		P	1	Т	P
Assigned Move	ment			5	2	12	1	6	+	16	3	8	18	7	1	14
Adjusted Flow	Rate ( v	) veh/h		44	857	21	14	130	3	47		296	10	-	322	17
Adjusted Fiew	ation Flo	w Rate (s) veh/h/l	n	394	1809	1610	654	180	)9 1	1610		1842			1771	
Queue Service	Time ( d	a s ). S		11.5	17.7	0.7	1.6	35.	6	1.7	_	18.9			21.4	
Cvcle Queue C	learance	e Time ( <i>q</i> c ). s		47.1	17.7	0.7	19.2	35.	6	1.7		18.9		<u> </u>	21.4	
Green Ratio ( d	/C)	- ····· (9 · ), -		0.53	0.53	0.53	0.53	0.5	3 (	0.53		0.18			0.20	
Capacity ( c ).	/eh/h			150	1904	847	308	190	)4 8	847		326			348	
Volume-to-Cap	acity Ra	itio(X)		0.291	0.450	0.025	0.044	0.73	32 0	.055		0.907			0.924	
Back of Queue	(Q), ft/	/In ( 50 th percentile)	)	32.8	183.1	7	6.7	37	6	16		250.4			294.1	
Back of Queue	(Q), ve	eh/In ( 50 th percenti	le)	1.3	7.3	0.3	0.3	15.	0	0.6		10.0			11.8	
Queue Storage	Ratio (	RQ) (50 th percent	ile)	0.00	0.00	0.00	0.00	0.0	0 0	0.00		0.00			0.00	
Uniform Delay	(d1), s	/veh		40.1	17.6	13.6	23.6	21.	9 1	13.9		48.4			47.3	
Incremental De	lay ( <i>d</i> 2	), s/veh		4.8	0.8	0.1	0.3	2.5	5	0.1		16.0			25.4	
Initial Queue D	ncremental Delay ( d 2 ), s/ven nitial Queue Delay ( d 3 ), s/veh			0.0	0.0	0.0	0.0	0.0	) (	0.0		0.0			0.0	
Control Delay (	Control Delay ( <i>d</i> ), s/veh			44.9	18.4	13.7	23.9	24.	4 1	14.0		64.4			72.7	
Level of Service	evel of Service (LOS)			D	В	В	С	С		В		Е			E	
Approach Dela	Approach Delay, s/veh / LOS			19.6	;	В	24.1		С	)	64.4		E	72.7	7	E
Intersection De	ntersection Delay, s/veh / LOS					3′	1.9							С		
Multimodal Re	sults				EB			W	В			NB	_		SB	
Pedestrian LOS	S Score	/LOS		1.68		В	1.68	3	B	3	2.48		В	2.46	5	В
Bicycle LOS So	core / LC	DS		1.25		А	1.69	)	B	3	0.98		А	1.02	2	А

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		1100	7 Olg	nanze	um	61360		1031	1113	Jour	mary	y				
General Inform	nation								Inte	ersect	ion Infe	ormatio	n	K	4244	la la
Agency	ation									ration	h	0 250			*	
Analyst				Analys	is Date	Sen 2	8 2021		Δro	a Type		Other		 		<u>د</u>
Jurisdiction				Time				ır		са турс	-	0.05		` -⇒	w Ťe	~_ +
Jurisaiction		Wilchiro Boulovard						11	And		Doriod	1 7.0	0			
				File N		2027		027 \				1-1.		-		<u> </u>
Draiget Deserin	tion		Drojoot	File Na	ame	III #2	(FUT-2	027-1	<i>N</i> O)	- AIVI.X	us			- 4	শ্ব ব কেন্দ্র	te d'
Project Descrip	lion		Project													
Demand Inform	nation				EB			W	/B			NB			SB	
Approach Move	ement			L	Т	R	L	T -	Г	R	L	Т	R	L	Т	R
Demand ( v ), v	/eh/h			6	845	29	23	13	67	13	16	12	41	13	37	66
					1			1		1						-
Signal Informa	ation					216								_		$\mathbf{A}$
Cycle, s	120.0	Reference Phase	2		<b>R</b> *	Sti	7						1	€ 2	3	4
Offset, s	0	Reference Point	End	Green	91.0	10.4	6.6	0.	0	0.0	0.0			<u>-</u> <u>5</u>		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	0.	0	0.0	0.0					_ <b>√</b> >
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.	0	0.0	0.0		5	6	7	8
					_										_	
Timer Results				EBL	-	EBT	WB		W	/BT	NBL	-	NBT	SBI		SBT
Assigned Phas	е					2		_	6	6			8		_	4
Case Number						5.0		_	5.	.0			12.0			12.0
Phase Duration	1, S					95.0		_	95	5.0			10.6	<u> </u>		14.4
Change Period	nange Period, ( Y+R c ), s ax Allow Headway ( <i>MAH</i> ), s					4.0		$\rightarrow$	4.	.0			4.0			4.0
Max Allow Hea	ax Allow Headway ( <i>MAH</i> ), s					0.0			0.	.0			3.3			3.2
Queue Clearan	lax Allow Headway ( <i>MAH</i> ), s Jueue Clearance Time ( <i>g</i> s ), s							$\rightarrow$					7.1			10.4
Green Extensio	on Time	(ge),s				0.0			0.	.0			0.1			0.2
Phase Call Pro	bability												0.91			0.98
Max Out Proba	bility												0.00			0.00
Movement Gro		aulte			EB			\٨/٢	R			NB			SB	
Approach Move	ement	Suits			Т	R	1	T		R	1	T	R		Т	R
Assigned Move	ment			5	2	12	1	6	+	16	3	8	18	7	4	14
Adjusted Flow I	Rate ( v	) veh/h		6	889	31	24	143	9	14		73	10		122	17
Adjusted Flow	ation Flo	w Rate ( s ) veh/h/l	n	377	1809	1610	635	180	9 1	1610		1699			1715	
Queue Service	Time ( (	$\gamma_{s}$ ) s		0.8	9.4	0.6	1.5	19	1	0.2		5 1			8.4	
Cycle Queue C	learanc	e Time ( a c ) s		20.0	9.4	0.6	11.0	19	1	0.2		5.1			8.4	
Green Ratio ( o	/C)	o milo (g o ), o		0.76	0.76	0.76	0.76	0.7	6 0	0.76	_	0.05			0.09	
Capacity ( c )	/eh/h			286	2745	1222	492	274	5 1	1222		93			149	
Volume-to-Cap	acity Ra	itio (X)		0.022	0.324	0.025	0.049	0.52	24 (	0.011	_	0 783			0.822	
Back of Queue	(Q), ft/	(In ( 50 th percentile)	)	1.9	75.9	4.2	5.4	154	.3	1.8		57.3			94.3	
Back of Queue	(Q), ve	eh/In ( 50 th percenti	le)	0.1	3.0	0.2	0.2	6.2	2	0.1		2.3			3.8	
Queue Storage	Ratio (	RQ) (50 th percent	, tile)	0.00	0.00	0.00	0.00	0.0	0 0	0.00		0.00			0.00	
Uniform Delay	(d1), s	/veh		9.8	4.6	3.6	6.4	5.8	3	3.5		56.0			53.9	
Incremental De	lay ( d 2	), s/veh		0.1	0.3	0.0	0.2	0.7	7	0.0		5.3			4.3	
Initial Queue De	nitial Queue Delay ( $d a$ ), s/veh			0.0	0.0	0.0	0.0	0.0	)	0.0		0.0			0.0	
Control Delay (	Control Delay ( <i>d</i> ), s/veh			9.9	4.9	3.6	6.6	6.5	5	3.5		61.3			58.1	
Level of Service	vel of Service (LOS)			Α	Α	A	Α	A		А		E			Е	
Approach Delay, s/veh / LOS				4.9		А	6.5		ŀ	A	61.3		E	58.1		E
Intersection De	lay, s/ve	eh / LOS				9	.9							A		
Multimodal Re	sults				EB			WE	В			NB			SB	
Pedestrian LOS	S Score	/LOS		1.62	2	В	1.62	2	E	В	2.48		В	2.47	'	В
Bicycle LOS Sc	core / LC	DS		1.25	5	А	1.71	1	E	В	0.61		А	0.69	)	А

**PM Peak Hour** 

		1100	r olg	nanzo	a int	.01000		1001		oun	innen j	,				
General Inform	nation								Inte	ersect	ion Info	ormatio	n		석갑추수	þa l <sub>a</sub>
Agency	lation								Dur	ration	h	0 250			*	
Analyst				Analys	is Dat	a San 2	8 2021		Δre	a Type		Other		 		<u>د</u>
Jurisdiction				Time	Poriod			ır	рн	атур. Е		0 07			w∔e	~ ↓
Lirban Street		Wilshire Boulevard		Analys		r 2027	Sak HOU	<b>1</b> 1	Ang	ı alveie I	Deriod	1> 7.0	20			
Intersection						Int #1	(ELIT_2	027-1				1-1.	50			
Project Descrip	tion	Euture (2027) W/O	Project			1111 #1	(101-2	027-1	10)	- 1 101.7	lus			-	** * 1 4 4	te d'
T TOJECT Descrip			Појсск													
Demand Inform	nation				EB		Τ	W	/B			NB			SB	
Approach Move	ement			L	Т	R	L	Τ-	Г	R	L	Т	R	L	Т	R
Demand ( v ), v	eh/h			80	1577	7 39	24	8	52	22	36	241	66	38	203	99
				-						_	_					-
Signal Informa	tion		-			9215										$\mathbf{A}$
Cycle, s	120.0	Reference Phase	2		<b>B</b> '	1 Sti	71						1	<b>Q</b> <sub>2</sub>	3	4
Offset, s	0	Reference Point	End	Green	57.9	25.1	25.0	0.0	0	0.0	0.0			5		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	0.	0	0.0	0.0					$\nabla$
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0	0.0	0.0		5	6	7	8
Timer Deculto			_	ГРІ		ГРТ		1	١٨/٢	рт	NDI		NDT	CDI		ODT
Accident Accident				EBL	-	EBI	VVB		VVI	ы	INBL			SBL		581
Assigned Phase	3			<u> </u>		2		-	5	) _			0			4
Case Number				<u> </u>		5.0		-+	5. 61	.0			12.0	<u> </u>		12.0
Change Duration	, 3 ( V+D					4.0		-	4	.9			29.0			29.1
Max Allow Hear	e Period, ( $Y+Rc$ ), s low Headway ( <i>MAH</i> ), s					4.0		-	4.	0			4.0			3.1
	x Allow Headway ( <i>MAH</i> ), s eue Clearance Time ( <i>g</i> s ), s					0.0		$\rightarrow$	0.			+	24.8			25.0
Green Extensio	ueue Clearance Time ( $g_s$ ), s					0.0		-	0	0			0.2			0.1
Phase Call Pro	bability	(9,0),0				0.0		-					1.00			1.00
Max Out Proba	bility		_										1.00			1.00
	- ···· <b>j</b>															
Movement Gro	oup Res	ults			EB			W	3			NB			SB	
Approach Move	ement			L	Т	R	L	Т		R	L	Т	R	L	Т	R
Assigned Move	ment			5	2	12	1	6		16	3	8	18	7	4	14
Adjusted Flow F	Rate ( v	), veh/h		82	1626	40	25	878	3	23		354			351	
Adjusted Satura	ation Flo	w Rate ( <i>s</i> ), veh/h/l	n	642	1809	1610	315	180	9 1	1610		1827			1796	
Queue Service	Time ( g	g s ), S		12.1	50.7	1.6	7.2	19.	9	0.9		22.8			23.0	
Cycle Queue C	learance	e Time ( <i>g c</i> ), s		32.0	50.7	1.6	57.9	19.	9	0.9		22.8			23.0	
Green Ratio ( g	/C)			0.48	0.48	0.48	0.48	0.4	8 (	0.48		0.21			0.21	
Capacity ( c ), v	/eh/h			263	1746	777	79	174	6	777		380			376	
Volume-to-Capa	acity Ra	tio(X)		0.313	0.931	0.052	0.313	0.50	03 0	0.029		0.930			0.933	
Back of Queue	(Q), ft/	In (50 th percentile)		52.2	584.9	15.3	24.2	211	.2	8.5		323.6		<u> </u>	326.4	
Back of Queue	(Q), Ve	eh/In ( 50 th percenti	le)	2.1	23.4	0.6	1.0	8.4		0.3		12.9			13.1	
Queue Storage	Ratio (	RQ) (50 th percent	ile)	0.00	0.00	0.00	0.00	0.0		0.00		0.00			0.00	
Uniform Delay (	(a), si	ven		32.1	29.2	16.5	57.2	21.		16.3		46.6			46.6	
Incremental De	elay ( <i>d</i> <sub>2</sub> ), s/veh			3.1	10.4	0.1	10.1	1.0	)	0.1		25.8			28.2	
Cantral Dalay (	Queue Delay ( d ȝ ), s/veh			0.0	0.0	0.0	0.0	0.0	) )	16.4		72.5		<u> </u>	74.0	
Control Delay (	( d ), s/veh ce (LOS)			30.Z	39.0	10.0	67.3 E	22	2	I0.4		72.5 E		<u> </u>	74.0 E	
Approach Dolo	ervice (LOS) Delay, s/yeb / LOS			39.0							70 5		F	7/ 0		F
	Approach Delay, s/veh / LOS			30.8		1	23.0		L.	,	12.3		L	0 D	,	L
	section Delay, s/veh / LOS					4										
Multimodal Re	sults				EB			W	3			NB			SB	
Pedestrian LOS	Score	/LOS		1.68	;	В	1.68	3	В	3	2.48		В	2.46	3	В
Bicycle LOS Sc	ore / LC	)S				В	1.25	5	Α	A	1.07		Α	1.07	7	А

		1100	r olg	nunzo	a mi	01000		.001	anto	oun	inner 3	,				
General Inform	nation								Inte	ersect	ion Info	ormatio	on	K	4,4,4,4,	þa l <sub>al</sub>
Agency									Dur	ration.	h	0.250			*	
Analvst				Analys	is Date	e Sep 2	8. 2021		Are	a Type	3	Other				<u>,</u>
Jurisdiction				Time F	Period	PM Pe	eak Hou	ır	PH	F		0.96		$\overrightarrow{\diamond}$	w∔e	← <mark>}</mark>
Urban Street		Wilshire Boulevard		Analys	is Yea	2027			Ana	alvsis I	Period	1> 7:(	00	14 - Y		<del>به</del> ۲
Intersection		Cloverdale Avenue		File Na	ame	Int #2	(FUT-2	027-\	WO)	- PM.×	us				भौर	<u> </u>
Project Descrip	tion	Future (2027) W/O	Project				<u> </u>	-	- /					- 5	T ₹↑фŸ'	»ا د
, ,			,													
Demand Inform	nation				EB			٧	VB			NB			SB	
Approach Move	ement			L	Т	R	L		Т	R	L	Т	R	L	Т	R
Demand ( v ), v	eh/h			32	1580	56	22	8	51	29	18	35	48	21	74	46
										1						-
Signal Informa	tion					9215										$\mathbf{A}$
Cycle, s	120.0	Reference Phase	2		<b>8</b> *	- Stř	71						1	<del>\</del> 2	3	4
Offset, s	0	Reference Point	End	Green	87.1	11.8	9.1	0.	0	0.0	0.0			<u> </u>		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	0.	0	0.0	0.0					$\nabla$
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.	0	0.0	0.0	_	5	6	7	8
<b>T</b> . <b>D</b> . <b>K</b>				EDI	_	EDT						_	NDT	0.01		ODT
Timer Results				EBL	-	EBI	VVB			BI	NBL	-	NBI	SBI		SBI
Assigned Phase	e				_	2		$\rightarrow$	6	0			8	<u> </u>	_	4
Case Number	e Number se Duration, s nge Period, ( Y+R c ), s				_	5.0		$\rightarrow$	5.	.0		_	12.0			12.0
Phase Duration	igned Phase e Number se Duration, s nge Period, ( $Y+Rc$ ), s : Allow Headway ( $MAH$ ), s : ue Clearance Time ( $gs$ ), s en Extension Time ( $ge$ ), s			<u> </u>		91.1		$\rightarrow$	91	1.1			13.1	<u> </u>	_	15.8
Change Period	se Number ase Duration, s ange Period, ( $Y+Rc$ ), s x Allow Headway ( <i>MAH</i> ), s eue Clearance Time ( $gs$ ), s een Extension Time ( $ge$ ), s ase Call Probability				_	4.0		$\rightarrow$	4.	.0			4.0			4.0
Max Allow Head	aase Duration, s aange Period, ( $Y+Rc$ ), s ax Allow Headway ( $MAH$ ), s ieue Clearance Time ( $gs$ ), s een Extension Time ( $ge$ ), s ase Call Probability				_	0.0		$\rightarrow$	0.	.0		_	3.2		_	3.2
Queue Clearan	Tange Period, ( $Y+R c$ ), s ax Allow Headway ( $MAH$ ), s ueue Clearance Time ( $g s$ ), s reen Extension Time ( $g e$ ), s					0.0	<u> </u>	-	0	0			9.2		_	11.7
Green Extensio	ange Period, ( $Y+R_c$ ), s ax Allow Headway ( <i>MAH</i> ), s neue Clearance Time ( $g_s$ ), s een Extension Time ( $g_e$ ), s ase Call Probability				_	0.0		$\rightarrow$	0.	.0			0.2			0.2
Phase Call Pro	hange Period, ( $Y+R_c$ ), s ax Allow Headway ( $MAH$ ), s ueue Clearance Time ( $g_s$ ), s reen Extension Time ( $g_e$ ), s hase Call Probability ax Out Probability						-	$\rightarrow$		_			0.97			0.99
Max Out Proba	DIIILY												0.00			0.00
Movement Gro	oup Res	ults			EB			W	В			NB			SB	
Approach Move	ement			L	Т	R	L	Т		R	L	Т	R	L	Т	R
Assigned Move	ment			5	2	12	1	6		16	3	8	18	7	4	14
Adjusted Flow I	Rate ( v	), veh/h		33	1646	58	23	88	6	30		105			147	
Adjusted Satura	ation Flo	w Rate ( s ), veh/h/l	n	637	1809	1610	309	180	)9 1	1610		1736			1782	
Queue Service	Time ( g	g s ), S		2.4	27.5	1.2	4.8	10.	.7	0.6		7.2			9.7	
Cycle Queue C	learance	e Time ( g c ), s		13.1	27.5	1.2	32.3	10.	.7	0.6		7.2			9.7	
Green Ratio ( g	/C)	i		0.73	0.73	0.73	0.73	0.7	3 (	0.73		0.08			0.10	
Capacity ( c ), v	/eh/h			465	2626	1169	213	262	26 1	1169		131			176	
Volume-to-Cap	acity Ra	itio(X)		0.072	0.627	0.050	0.107	0.33	38 0	0.026		0.803			0.836	
Back of Queue	( Q ), ft/	In ( 50 th percentile)	)	8.9	237.9	9.8	10	91.	.5	5		81.5			112.7	
Back of Queue	( Q ), ve	eh/In ( 50 th percenti	le)	0.4	9.5	0.4	0.4	3.7	7	0.2		3.3			4.5	
Queue Storage	Ratio (	RQ) (50 th percent	tile)	0.00	0.00	0.00	0.00	0.0	0 0	0.00		0.00			0.00	
Uniform Delay	( d 1 ), s/	/veh		8.4	8.3	4.7	16.4	6.0	0	4.6		54.6			53.1	
Incremental De	lay ( <i>d</i> 2	), s/veh		0.3	1.1	0.1	1.0	0.3	3	0.0		4.3			4.0	
Initial Queue De	elay ( <i>d</i>	з), s/veh		0.0	0.0	0.0	0.0	0.0	0	0.0		0.0			0.0	
Control Delay (	d ), s/ve	eh		8.6	9.4	4.8	17.4	6.3	3	4.6		58.9			57.1	
Level of Service	rel of Service (LOS)			А	А	A	В	A		А		Е			Е	
Approach Delay	pproach Delay, s/veh / LOS			9.2		А	6.5		Α	Ą	58.9		E	57.1		Е
Intersection De	lay, s/ve	h / LOS				12	2.6							В		
Multimeria	a							1.4.4	D						00	
Dedestriars I CC	Sults	/1.08		1.00	ER	D	4.00		в г		0.40	NB	D	0.45	<u>, </u> ,	B
Pedestrian LOS	s score	1 103		1.03	2	D	1.03	2	E		2.48			2.47		
BICYCIE LOS SC	estrian LOS Score / LOS le LOS Score / LOS					В	1.26	)	A	4	0.66		А	0.73	5	А

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Future (2027) With Project Conditions

AM Peak Hour

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General Information	n							Inte	ersecti	ion Info	ormatio	on	2	4244	þa l <sub>a</sub>
Agency								Dur	ration	h	0 250			*	
Analyst			Analys	sis Date	Apr 19	2022		Area	a Type	j 	Other		 		بر ک <sup>ر</sup>
			Time F	Period		ak Hou	ır	PHF	F		0.96		⇒→	w‡e	<b>↓</b>
Urban Street	Wilshire Boulevard		Analys	is Yea	r 2027			Ana	alvsis F	Period	1> 7.(	00			+ + +
Intersection	Cochran Avenue		File Na	ame	Int #1	(FUT-2	027-1	With I	Proi) -		3		┥ݿ┻┓╻		
Project Description	Future (2027) With I	Project	T ne ru			( 2	021		1 10]/	/			- 5	ግ ተተቀጥ	۳ <sub>1</sub> ۲
		. ejeet													
Demand Informatio	n			EB			٧	٧B			NB			SB	
Approach Movemen	t		L	Т	R	L		Т	R	L	Т	R	L	Т	R
Demand ( v ), veh/h			41	824	20	13	13	357	54	41	196	39	23	163	114
			<u></u>	1					-		_				-
Signal Information					9215										$\mathbf{A}$
Cycle, s 120.	.0 Reference Phase	2		<b>R</b> '	' <b>S</b> tří	71						1	<b>\$</b> 2	3	4
Offset, s 0	Reference Point	End	Green	64.3	23.0	20.7	0.	0	0.0	0.0			5		
Uncoordinated No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	0.	0	0.0	0.0	_				_ ¶ ∕
Force Mode Fixe	d Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.	0	0.0	0.0	-	5	6	7	8
Timer Deculto			EDI		ГРТ			۱۸/۲	рт	NDI		NDT	CDI		CDT
					2	VVD		000		INDL	-			-	
Assigned Phase			<u> </u>		2		$\rightarrow$	5	) _			0	<u> </u>	_	4
Case Number			<u> </u>		5.U		-+	5.	.0			12.0	<u> </u>	_	12.0
Change Duration, S			<u> </u>		4.0	<u> </u>	$\rightarrow$	00	0			24.7	<u> </u>	_	27.0
Max Allow Headway	ange Period, ( Y+R c ), s ax Allow Headway ( MAH ), s				4.0		-	4.	0			4.0			4.0
	ax Allow Headway ( <i>MAH</i> ), s ueue Clearance Time ( <i>g</i> s ), s				0.0		-	0.				20.4			22.8
Green Extension Tim	ueue Clearance Time ( $g_s$ ), s				0.0		-	0.0	0			0.4			0.2
Phase Call Probabili	tv				0.0		$\rightarrow$	0.1				1.00			1.00
Max Out Probability	-)											0.01			0.95
,															
Movement Group R	lesults			EB			W	В			NB			SB	
Approach Movemen	t		L	Т	R	L	Т		R	L	Т	R	L	Т	R
Assigned Movement			5	2	12	1	6		16	3	8	18	7	4	14
Adjusted Flow Rate	( <i>v</i> ), veh/h		43	858	21	14	141	4	56		288			313	
Adjusted Saturation	Flow Rate ( s ), veh/h/lr	ו	386	1809	1610	654	180	)9 1	1610		1840			1772	
Queue Service Time	(gs),s		11.4	17.3	0.7	1.5	35.	7 :	2.0		18.4			20.8	
Cycle Queue Cleara	nce Time ( <i>g c</i> ), s		47.1	17.3	0.7	18.9	35.	7	2.0		18.4			20.8	
Green Ratio ( g/C )			0.54	0.54	0.54	0.54	0.5	4 C	0.54		0.17			0.19	
Capacity ( c ), veh/h			152	1937	862	316	193	37 8	862		318			340	
Volume-to-Capacity	Ratio (X)		0.281	0.443	0.024	0.043	0.73	30 0	0.065		0.904			0.920	
Back of Queue (Q)	, ft/In ( 50 th percentile)		31.6	179	6.8	6.5	375	.8 1	18.9		239.5			283	
Back of Queue (Q),	veh/ln ( 50 th percentil	e)	1.3	7.2	0.3	0.3	15.	0	0.8		9.6			11.3	
Queue Storage Ratio	o ( RQ ) ( 50 th percenti	le)	0.00	0.00	0.00	0.00	0.0	0 0	0.00		0.00			0.00	
Uniform Delay (d 1)	, s/veh		39.2	17.0	13.1	22.7	21.	2 1	13.4		48.6			47.6	
Incremental Delay (	remental Delay ( $d_2$ ), s/veh		4.6	0.7	0.1	0.3	2.8		0.1		14.0			24.1	
Initial Queue Delay (	nitial Queue Delay ( d ȝ ), s/veh			0.0	0.0	0.0	0.0	J   (	0.0		0.0			0.0	
Control Delay (d), s	ontrol Delay ( <i>d</i> ), s/veh		43.8	17.7	13.2	23.0	23.	/ 1	13.6 P		62.7			/1./	
Level of Service (LO	el of Service (LOS)			В	В				Б	60.7	E		74 7		
Approach Delay, s/ve	Approach Delay, s/veh / LOS				D OC	23.3	<b>)</b>	0		62.7		E	/1./ C		E
mersection Delay, s	ntersection Delay, s/veh / LOS				30	)./									
Multimodal Results	nodal Results			FB			W	B			NB			SB	
Pedestrian LOS Sco	re / LOS	/1.05		,	В	1.67	7	B	3	2.48		В	2.46		В
Bicycle LOS Score /	LOS				А	1.71		B	3	0.96		А	1.00	)	А

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General Information												,				
General Inform	nation								Inte	ersecti	ion Info	ormatio	on	2	****	× l <u>*</u>
Agency		<u> </u>							Dur	ration.	h	0.250			*	
Analyst				Analys	is Dat	e Apr 19	9. 2022		Are	a Type	;	Other				د. م_ اللہ
Jurisdiction				Time F	Period	AM P	eak Hou	ır	PH	F		0.95		$\rightarrow$	w∔e	↓ ↓
Urban Street		Wilshire Boulevard		Analys	is Yea	r 2027			Ana	alvsis F	Period	1> 7:(	00	<sup>-</sup> 4 -√		<del>ب</del> ة
Intersection		Cloverdale Avenue		File Na	ame	Int #2	(FUT-2	027-\	With I	Proi) -	AM.xus	5			<b>.</b>	
Project Descrip	tion	Future (2027) With	Proiect				(			··- <b>j</b> /				-	<u>ተተቀም</u> 1	× (*
· · · <b>)</b> · · · · · · · · ·			j													
Demand Inform	nation				EB			V	∕B			NB			SB	
Approach Move	ment			L	Т	R	L	-	Т	R	L	Т	R	L	Т	R
Demand ( v ), v	eh/h			8	845	29	23	13	376	10	16	13	41	38	44	86
										1		_				-
Signal Informa	tion		-			빌겠도										$\mathbf{A}$
Cycle, s	120.0	Reference Phase	2		<b>R</b> '	1 SA	7						1	<b>Q</b> 2	3	4
Offset, s	0	Reference Point	End	Green	87.1	14.3	6.6	0.	0	0.0	0.0			<u> </u>		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	0.	0	0.0	0.0	_				$\mathbf{\nabla}$
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.	0	0.0	0.0		5	6	7	8
Time Describe						EDT			10/1	DT			NDT			ODT
Accident Accounts				EBI	·	EBI	VVB			BI	NBL		NBI	SBL	-	5B1
Assigned Phase	3					2		$\rightarrow$	6	<b>)</b>		_	8			4
Case Number	se Number ase Duration, s ange Period, ( <i>Y+R c</i> ), s x Allow Headway ( <i>MAH</i> ), s					5.0		-	5. 01	.0		_	12.0			12.0
Phase Duration	se Number ase Duration, s ange Period, ( Y+ <i>R</i> c ), s x Allow Headway ( <i>MAH</i> ), s eue Clearance Time ( <i>g</i> s ), s een Extension Time ( <i>g</i> e ), s					91.1		-+	91			_	10.6			18.3
Change Period,	ange Period, ( Y+R c ), s x Allow Headway ( MAH ), s					4.0		-	4.	.0			4.0			4.0
	ange Penod, ( <i>Y+R c</i> ), s ax Allow Headway ( <i>MAH</i> ), s ueue Clearance Time ( <i>g</i> s ), s				_	0.0		$\rightarrow$	0.	.0			3.2			3.2
Queue Clearan	ce filme	$(g_s), s$				0.0	<u> </u>	-	0	0			7.1		_	14.1
Bhase Cell Brok		(ge), s		<u> </u>		0.0		-	0.	.0			0.1	<u> </u>	_	0.2
Max Out Broba							<u> </u>	-+					0.91			0.00
	Jiiity												0.00			0.00
Movement Gro	up Res	ults			EB			W	В			NB			SB	
Approach Move	ment			L	Т	R	L	Т		R	L	Т	R	L	Т	R
Assigned Move	ment			5	2	12	1	6		16	3	8	18	7	4	14
Adjusted Flow F	Rate ( v	), veh/h		8	889	31	24	144	8	11		74			177	
Adjusted Satura	ation Flo	w Rate ( <i>s</i> ), veh/h/l	n	374	1809	1610	635	180	9 1	1610		1701			1722	
Queue Service	Time ( g	g s ), S		1.3	10.7	0.6	1.7	22.	0	0.2		5.1			12.1	
Cycle Queue C	learance	e Time ( <i>g c</i> ), s		23.3	10.7	0.6	12.5	22.	0	0.2		5.1			12.1	
Green Ratio ( g	/C )			0.73	0.73	0.73	0.73	0.7	3 (	0.73		0.06			0.12	
Capacity ( <i>c</i> ), v	eh/h			262	2625	1168	464	262	25 1	1168		94			205	
Volume-to-Capa	acity Ra	tio(X)		0.032	0.339	0.026	0.052	0.55	52 0	0.009		0.784			0.861	
Back of Queue	( Q ), ft/	'In ( 50 th percentile)		3	92.5	5	6.4	190	.2	1.7		58.1			135.2	
Back of Queue	( Q ), ve	eh/In ( 50 th percenti	le)	0.1	3.7	0.2	0.3	7.6	3	0.1		2.3			5.4	
Queue Storage	Ratio (	RQ) (50 th percent	ile)	0.00	0.00	0.00	0.00	0.0	0 0	0.00		0.00			0.00	
Uniform Delay (	d 1 ), s/	/veh		12.9	6.0	4.6	8.3	7.5	5	4.6		56.0			51.9	
Incremental De	lay ( <i>d</i> 2	), s/veh		0.2	0.4	0.0	0.2	0.8	3	0.0		5.3			4.1	
Initial Queue De	elay(d	₃ ), s/veh		0.0	0.0	0.0	0.0	0.0	)	0.0		0.0			0.0	
Control Delay (	ial Queue Delay ( d			13.1	6.3	4.7	8.5	8.4	1	4.6		61.2			56.0	
Level of Service	vel of Service (LOS)			В	Α	A	Α	A		А		E			E	
Approach Delay	pproach Delay, s/veh / LOS			6.4		А	8.4		Α	4	61.2		Е	56.0		Е
Intersection De	ay, s/ve	h / LOS				12	2.3							В		
<b>N</b> 10 · · · ·															0.5	
Multimodal Re	sults	// 00			EB	-		W	в –		0.1-	NB	_		SB	
Pedestrian LOS	Score	/ LUS		1.63	5	В	1.63	5	E	5	2.48		В	2.47		В
BICYCIE LOS SC	ore / LC	15		1.25		A	1.71		B	5	0.61		А	0.78		A

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**PM Peak Hour** 

												,				
General Inform	nation								Inter	rsecti	on Info	ormatio	on	2	4441	s l <u>s</u>
Agency									Durat	ation.	h	0.250			*	
Analyst				Analys	is Date	Apr 19	9, 2022		Area	Type	<u>.</u>	Other		 ⊅,		د. م_لا
Jurisdiction				Time F	Period	PM P	eak Hoi	ır	PHF			0.97		- → →	w‡e	↓ ↓
Urban Street		Wilshire Boulevard		Analys	is Yea	r 2027			Analy	vsis F	Period	1> 7:(	00			
Intersection		Cochran Avenue		File Na	ame	Int #1	(FUT-2	027-\	Nith P	Proi) -	PM.xu	s			A	<u> </u>
Project Descrip	tion	Future (2027) With	Proiect				(							- 1	<u>ተተቀጥ1</u>	* (*
· · · <b>·</b> · · · · · · · · · · · · · · ·			j													
Demand Inform	nation				EB			V	/B			NB			SB	
Approach Move	ement			L	Т	R	L	-	Т	R	L	Т	R	L	Т	R
Demand ( v ), v	eh/h			76	1588	39	24	8	62	34	36	228	68	37	195	88
				1	_		_			_		_				-
Signal Informa	tion					9215								_		$\mathbf{A}$
Cycle, s	120.0	Reference Phase	2		<b>H</b>	- Sti	7						1	€₂	3	4
Offset, s	0	Reference Point	End	Green	59.8	23.8	24.4	0.	0 0	0.0	0.0			5		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	0.	0 (	0.0	0.0					<b>√</b>
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.	0 (	0.0	0.0	_	5	6	7	8
					_							_			_	
Timer Results				EBL	-	EBT	WB		WB	T	NBL	-	NBT	SBL	-	SBT
Assigned Phase	9				$\rightarrow$	2		$\rightarrow$	6				8			4
Case Number						5.0		$\rightarrow$	5.0	)			12.0			12.0
Phase Duration	, S	```			$\rightarrow$	63.8		$\rightarrow$	63.8	8			28.4			27.8
Change Period,	nange Period, ( Y+R c ), s ax Allow Headway ( <i>MAH</i> ), s					4.0		$\rightarrow$	4.0	)			4.0			4.0
Max Allow Head	ax Allow Headway ( <i>MAH</i> ), s ueue Clearance Time ( <i>g</i> s ), s			<u> </u>		0.0		_	0.0	)			3.1	<u> </u>		3.1
Queue Clearan	ueue Clearance Time ( $g_s$ ), s						<u> </u>	-					24.1	<u> </u>		23.6
Green Extensio		(ge), s			_	0.0	<u> </u>	$\rightarrow$	0.0	)			0.3	<u> </u>	_	0.2
Phase Call Pro	bability			<u> </u>			<u> </u>	$\rightarrow$		-			1.00			1.00
Max Out Probal	bility												0.46			1.00
Movement Gro	oup Res	ults			EB			W	В	_		NB			SB	
Approach Move	ement		_	L	Т	R	L	Т	F	R	L	Т	R	L	Т	R
Assigned Move	ment			5	2	12	1	6	1	16	3	8	18	7	4	14
Adjusted Flow F	Rate ( v	), veh/h		78	1637	40	25	889	9 3	35		342			330	
Adjusted Satura	ation Flo	w Rate ( s ), veh/h/l	n	635	1809	1610	311	180	9 16	510		1823			1800	
Queue Service	Time ( g	g s ), S		11.2	49.7	1.5	9.5	19.	6 1.	.3		22.1			21.6	
Cycle Queue C	learanc	e Time ( <i>g</i> c ), s		30.8	49.7	1.5	59.2	19.	6 1.	.3		22.1			21.6	
Green Ratio ( g	/C )			0.50	0.50	0.50	0.50	0.5	0 0.	.50		0.20			0.20	
Capacity ( c ), v	/eh/h			273	1804	803	86	180	4 80	03		371			357	
Volume-to-Capa	acity Ra	tio(X)		0.287	0.908	0.050	0.287	0.49	93 0.0	044		0.924			0.925	
Back of Queue	( Q ), ft/	(In ( 50 th percentile)		47.5	560	14.7	23.3	206	.3 12	2.7		304.8			301.4	
Back of Queue	( Q ), ve	eh/In ( 50 th percenti	le)	1.9	22.4	0.6	0.9	8.3	3 0.	).5		12.2			12.1	
Queue Storage	Ratio (	RQ) (50 th percent	ile)	0.00	0.00	0.00	0.00	0.0	0 0.0	.00		0.00			0.00	
Uniform Delay (	(d1), s	/veh		30.2	27.6	15.5	54.7	20.	0 15	5.4		46.9			47.2	
Incremental De	lay ( <i>d</i> 2	), s/veh		2.6	8.2	0.1	8.2	1.0	) 0.	).1		22.4			25.4	
Initial Queue De	nitial Queue Delay ( $d z$ ), s/veh			0.0	0.0	0.0	0.0	0.0	) 0.	0.0		0.0			0.0	
Control Delay ( <i>d</i> ), s/veh				32.9	35.7	15.6	62.9	21.	0 15	5.5		69.3			72.7	
Level of Service (LOS)				С	D	В	E	С	E	В		Е			E	
Approach Delay	Approach Delay, s/veh / LOS			35.1		D	21.9	)	С		69.3		Е	72.7	·	E
Intersection Del	Intersection Delay, s/veh / LOS					38	3.5							D		
Multimodal Re	ultimodal Results				EB			W	В			NB			SB	
Pedestrian LOS	Score	/LOS		1.68	;	В	1.68	3	В		2.48		В	2.46	;	В
Bicycle LOS Sc	OS Score / LOS Score / LOS			1.94	-	В	1.27	7	А		1.05		А	1.03		А

		Ū								-	,				
General Information								Int	tersect	ion Infe	ormatio	on	<u>_</u>	444,	þa l <sub>al</sub>
Agency								Du	iration.	h	0.250			*	
Analyst			Analys	is Dat	e Apr 19	9. 2022		Are	ea Type	3	Other		 		ر_لا
Jurisdiction			Time F	Period	PM Pe	eak Hou	ır	РН	IF		0.96			w∔e	← <mark>}</mark>
Urban Street	Wilshire Boulevard		Analvs	is Yea	r 2027			An	alvsis I	Period	1> 7:(	00			
Intersection	Cloverdale Avenue		File Na	ame	Int #2	(FUT-2	027-	With	Proi) -	PM.xu	s			- <b>1</b> -	
Project Description	Future (2027) With Pro	oiect				(			···· <b>j</b> /		-		5	¥ זיייייייייי	۳) <del>א</del>
, ,		,													
Demand Information				EB			٧	VB			NB			SB	
Approach Movement			L	Т	R	L		Т	R	L	Т	R	L	Т	R
Demand ( v ), veh/h			45	1579	9 56	22	8	63	38	18	37	48	16	77	56
				1					_	_	_				-
Signal Information					9215										$\mathbf{A}$
Cycle, s 120.0	Reference Phase	2		<b>B</b> '	- Stř	7						1	€ 2	3	4
Offset, s 0	Reference Point E	End	Green	86.3	12.5	9.2	0.	0	0.0	0.0			<u> </u>		
Uncoordinated No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	0.	0	0.0	0.0					_ <b>√</b>
Force Mode Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.	0	0.0	0.0	_	5	6	7	8
Timer Desults			EDI		EDT			10							ODT
		_	EBL	-	EBI	VVB		VV	VB I	NBL	-	NBI	SBL	-	SBI
Assigned Phase		_			2		$\rightarrow$	5				8			4
Case Number		_			5.0		-	0	0.0			12.0		_	12.0
Change Deried (VLD		_			90.3	<u> </u>	-	90	0.3			13.2			10.5
Max Allow Headway (	ange Period, (Y+ <i>R</i> c), s x Allow Headway ( <i>MAH</i> ), s			+	4.0 0.0		+	4	+.0 ).0		-	4.0 3.2			3.2
Queue Clearance Time	ax Allow Headway ( <i>MAH</i> ), s ueue Clearance Time ( <i>g</i> s ), s				0.0			-				9.3			12.3
Green Extension Time	(ge), s	_			0.0			0	0.0			0.2			0.2
Phase Call Probability	(9,0)				0.0			-				0.97			0.99
Max Out Probability								_				0.00			0.00
,															
Movement Group Res	ults			EB			W	В			NB			SB	
Approach Movement			L	Т	R	L	Т		R	L	Т	R	L	Т	R
Assigned Movement			5	2	12	1	6		16	3	8	18	7	4	14
Adjusted Flow Rate ( v	), veh/h		47	1645	58	23	89	9	40		107			155	
Adjusted Saturation Flo	ow Rate ( <i>s</i> ), veh/h/ln		629	1809	1610	309	180	)9	1610		1739			1771	
Queue Service Time ( g	g s ), S		3.6	28.1	1.3	4.9	11.	1	0.8		7.3			10.3	
Cycle Queue Clearance	e Time ( <i>g c</i> ), s		14.8	28.1	1.3	33.1	11.	1	0.8		7.3			10.3	
Green Ratio ( g/C )			0.72	0.72	0.72	0.72	0.7	2	0.72		0.08			0.10	
Capacity ( c ), veh/h			454	2602	1158	210	260	)2	1158		133			184	
Volume-to-Capacity Ra	itio (X)	_	0.103	0.632	0.050	0.109	0.34	45 (	0.034		0.804			0.843	
Back of Queue (Q), ft/	(In ( 50 th percentile)		13.3	246	10.1	10.2	96.	.6	6.8		83			118.9	
Back of Queue (Q), ve	eh/In ( 50 th percentile)		0.5	9.8	0.4	0.4	3.9	9	0.3		3.3			4.8	
Queue Storage Ratio (	RQ) (50 th percentile	)	0.00	0.00	0.00	0.00	0.0	0	0.00		0.00			0.00	
Uniform Delay (d 1), s	/veh	_	9.0	8.7	4.9	17.2	6.3	3	4.8		54.5			52.8	
Incremental Delay ( d 2	), s/veh	_	0.5	1.2	0.1	1.0	0.4	4	0.1		4.2			4.0	
Initial Queue Delay (d	itial Queue Delay ( d 3 ), s/veh			0.0	0.0	0.0	0.0	0	0.0		0.0			0.0	
Control Delay ( d ), s/ve	ontrol Delay ( <i>d</i> ), s/veh			9.8	5.0	18.2	6.	/	4.9		58.7			56.8	
Level of Service (LOS)	evel of Service (LOS)			A	A	В	A		A		E			E	Ļ
Approach Delay, s/veh	Approach Delay, s/veh / LOS				A	6.9		1	A	58.7		E	56.8	5	E
ntersection Delay, s/veh / LOS					13	5.0							В		
Multimodal Results				EB			W	В			NB			SB	
Pedestrian LOS Score	/ LOS		1.63		В	1.63	3	-	В	2.48		В	2.47	/	В
Bicycle LOS Score / LC	DS		1.93		В	1.28	3	/	A	0.66	;	А	0.74		А

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APPENDIX L

HIGHWAY CAPACITY MANUAL ("HCM") PROJECT DRIVEWAY OPERATIONS ANALYSIS CALCULATION WORKSHEETS Cochran Avenue "Primary" Driveway

	HCS7 Two-Way Stop	o-Control Report	
General Information		Site Information	
Analyst		Intersection	Comm. Dwy & Cochran
Agency/Co.		Jurisdiction	
Date Performed	4/19/2022	East/West Street	Commercial Driveway
Analysis Year	2027	North/South Street	Cochran Avenue
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.93
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Future (2027) With Project		
Lanes			
		UUU	



#### Vehicle Volumes and Adjustments

· · · · · · · · · · · · · · · · · · ·																
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	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	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						11		9			260	19		6	289	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						(	C									
Right Turn Channelized																
Median Type   Storage				Undi	vided											
Critical and Follow-up He																
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	Leve	l of Se	ervice													
Flow Rate, v (veh/h)							22							6		
Capacity, c (veh/h)							549							1254		
v/c Ratio							0.04							0.01		
95% Queue Length, Q <sub>95</sub> (veh)							0.1							0.0		
Control Delay (s/veh)							11.8							7.9		
Level of Service (LOS)							В							А		
Approach Delay (s/veh)						11	1.8							0	.2	
Approach LOS						I	3									

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HCS7 Two-Way Stop-Control Report												
General Information		Site Information										
Analyst		Intersection	Comm. Dwy & Cochran									
Agency/Co.		Jurisdiction										
Date Performed	4/19/2022	East/West Street	Commercial Driveway									
Analysis Year	2027	North/South Street	Cochran Avenue									
Time Analyzed	PM Peak Hour	Peak Hour Factor	0.94									
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25									
Project Description	Future (2027) With Project											
Lanes												



#### Vehicle Volumes and Adjustments

Approach		Eastb	ound			Westk	bound			North	bound		Southbound					
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	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	1	0	0	0	1	0		
Configuration							LR					TR		LT				
Volume (veh/h)						17		13			294	30		10	303			
Percent Heavy Vehicles (%)						3		3						3				
Proportion Time Blocked																		
Percent Grade (%)						(	)											
Right Turn Channelized																		
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	Leve	of Se	ervice															
Flow Rate, v (veh/h)							32							11				
Capacity, c (veh/h)							506							1207				
v/c Ratio							0.06							0.01				
95% Queue Length, Q <sub>95</sub> (veh)							0.2							0.0				
Control Delay (s/veh)							12.6							8.0				
Level of Service (LOS)							В							А				
Approach Delay (s/veh)						12	2.6						0.3					
Approach LOS						E	3											

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Cloverdale Avenue "Primary" Driveway

		Н	CS7	Two-	Wav	Stor	ი-ეი	ntrol	Rep	ort							
General Information	-				- Tay		Site Information										
Analyst							Inters	ection	n Res. Dwy & Cloverdale								
Agency/Co.							Jurisdiction										
Date Performed	9/28/	2021					East/West Street Residential Driveway										
Analysis Year	2027							North/South Street Cloverdale Avenue									
Time Analyzed	AM Peak Hour							Hour Fac	ctor		0.93						
Intersection Orientation	North-South							sis Time	Period (	hrs)	0.25						
Project Description	iption Future (2027) With Project																
Lanes																	
T T T T T T T T T T T T T T																	
Vehicle Volumes and Adju	istme	nts															
Approach		Eastb	ound			West	bound			North	bound			South	bound		
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	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 (veh/h)		9		52						13	18				104	2	
Percent Heavy Vehicles (%)		3		3						3							

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)			66							14				
Capacity, c (veh/h)			918							1469				
v/c Ratio			0.07							0.01				
95% Queue Length, Q <sub>95</sub> (veh)			0.2							0.0				
Control Delay (s/veh)			9.2							7.5				
Level of Service (LOS)			A							А				

Undivided

0

9.2

А

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Proportion Time Blocked Percent Grade (%)

Right Turn Channelized

Median Type | Storage

Approach Delay (s/veh)

Approach LOS

**Critical and Follow-up Headways** 

3.2

		Н	CS7	Two-	Way	Stop	o-Co	ntrol	Rep	ort								
General Information							Site	Inforr	natio	n								
Analyst							Intersection Res. Dwy & 0						Cloverdale					
Agency/Co.							Jurisc	liction										
Date Performed	9/28/	2021					East/	West Stre	eet		Residential Driveway							
Analysis Year	2027						North	n/South S	Street		Cloverdale Avenue							
Time Analyzed	PM Peak Hour						Peak	Hour Fac	ctor		0.87							
Intersection Orientation	North	-South					Analy	sis Time	Period (	hrs)	0.25							
Project Description	Future	e (2027)	With Pro	oject														
Lanes																		
Vehicle Volumes and Adiu	Istme	nts	_	74,	<mark>ብ ገ</mark> <sub>Major</sub>	۲ ۲ Street: Nor Street: Nor	th-South	4								_		
Approach		Eacth	ound			Worth	ound			North	hound			South	hound			
Movement	U		т	R		1	т	R	- U	INOITII	т	R	U		т	R		
Priority	-	10	11	12	<u> </u>	7	8	9	10	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 (veh/h)		5		26						44	76				109	8		
Percent Heavy Vehicles (%)		3		3						3								
Proportion Time Blocked																		
Percent Grade (%)		(	)															
Right Turn Channelized																		
Median Type   Storage				Undi	vided													

#### Critical and Follow-up Headways

Circlear and Follow-up rie	auwa	ys															
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)			36							51							
Capacity, c (veh/h)			860							1444							
v/c Ratio			0.04							0.04							
95% Queue Length, Q <sub>95</sub> (veh)			0.1							0.1							
Control Delay (s/veh)			9.4							7.6							
Level of Service (LOS)			A							A							
Approach Delay (s/veh)		9.4								3	.0						
Approach LOS	А																

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