# Appendix I

Transportation

# **Appendix I.1**

Transportation Assessment



#### **MEMORANDUM**

TO: Eileen Hunt, Los Angeles Department of Transportation

CC: Stephanie Eyestone-Jones, Eyestone Environmental

Sarah M. Drobis, P.E., and Emily Wong, P.E. FROM:

DATE: February 7, 2023

RE: Transportation Assessment Report for

The Bloc Residential Tower and Signage SUD Project

Los Angeles, California **Ref:** J1879

The approved March 2023 transportation assessment report has been revised, as provided in the attached, for consistency with the Draft Environmental Impact Report. It should be noted that the revisions provide supplemental information (i.e., refinements to the Construction Management Plan, recent approval of the Draft Downtown Los Angeles Community Plan, and updated survey data) and do not result in changes to the analyses assumptions, methodologies, or conclusions presented in the approved March 2023 transportation assessment report.

Thus, the conclusions of the analysis presented in the approved March 2023 transportation assessment report are the same and remain valid.

# TRANSPORTATION ASSESSMENT FOR THE BLOC RESIDENTIAL TOWER AND SIGNAGE SUD PROJECT

LOS ANGELES, CALIFORNIA

JANUARY 2023 REVISED FEBRUARY 2024

PREPARED FOR

**NREA-TRC 700 LC** 



## TRANSPORTATION ASSESSMENT FOR THE BLOC RESIDENTIAL TOWER AND SIGNAGE SUD PROJECT

LOS ANGELES, CALIFORNIA

January 2023 Revised February 2024

Prepared for:

**NREA-TRC 700 LLC** 

Prepared by:

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Ref: J1879

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# Chapter 1 Introduction

This study presents the transportation assessment for the proposed The Bloc Residential Tower and Signage Supplemental Use District (SUD) Project (Project) located generally at 700 S. Flower Street, 700 W. 7<sup>th</sup> Street, 711 S. Hope Street, and 775 S. Hope Street (Project Site) within the *Central City Community Plan* (Los Angeles Department of City Planning [LADCP], Updated September 2016) area of the City of Los Angeles, California (City). The methodology and base assumptions used in the analysis were established in conjunction with the Los Angeles Department of Transportation (LADOT).

#### PROJECT DESCRIPTION

The Project Site comprises an entire block bounded by 7<sup>th</sup> Street to the north, Hope Street to the east, 8<sup>th</sup> Street to the south, and Flower Street to the west that is currently developed with a hotel, commercial uses, and associated parking and contains a portal to the Los Angeles County Metropolitan Transportation Authority (Metro) 7<sup>th</sup> Street/Metro Center Station. The commercial uses consist of office, theater, retail, restaurant/bar, gym/fitness, and medical office uses. The Project proposes the development of a new tower containing up to 466 residential units within the southern portion of the Project Site¹ (Development Area) within and above the existing podium building. The Project Site's existing commercial and hotel uses on the Project Site will be retained, with the exception of approximately 24,342 square feet (sf) of existing commercial (theater and retail) uses that would be replaced with residential uses (including a new residential lobby). The rooftop parking level of the existing nine-story commercial podium building would be enclosed and two additional levels of parking would be added, increasing the podium building to 12 stories. All existing parking stalls would be reconfigured and restriped due to the City-required seismic retrofit and the addition of a portion of the residential tower within the podium. The Project's residential uses would comprise a total floor area of approximately 495,016 sf, consisting of the

<sup>&</sup>lt;sup>1</sup> The address of the Project's new residential tower would be 775 S. Hope Street.

24,342 sf of existing commercial uses within the podium building (to be converted to residential uses) and 470,674 sf in the new 53-story tower, which will extend 41 stories above the expanded 12-story podium building. The two existing basement levels below the podium building would be retained.

The Project would also establish a Sign District to permit specific signage. A Conceptual Sign Plan has been proposed and includes a total of 18 signs, including nine digital display signs, three non-digital wall signs, and six non-digital identification signs. Digital display signs would include off-site advertising. Additionally, the Conceptual Sign Plan includes eight digital kiosks (three floor-mounted and five wall-mounted) that are considered to be signs under applicable City regulations. These digital kiosks would identify tenants and serve to orient and direct visitors to the diverse uses at the Project Site and would include off-site advertising.

Vehicular access for the Project would be provided via existing driveways along Flower Street, 8<sup>th</sup> Street, and Hope Street. Service and truck access would continue to be provided via the existing loading driveway located mid-block along 8<sup>th</sup> Street. Pedestrian access to the Project Site would be provided along Hope Street, 7<sup>th</sup> Street, and Flower Street, with access to the new residential lobby on Hope Street.

The Project is anticipated to be completed in Year 2031. The conceptual site plan is provided in Figure 1.

#### PROJECT LOCATION AND STUDY AREA

As shown in Figure 2, the Project Site, contained within Assessor Parcel Number 5144-010-401, -405, -408, -421, -422, -423, and -425, is located in the downtown area of the City, within City Council District 14.

The Project Site is located approximately 0.25 miles east of State Route (SR) 110. As previously detailed, the Project Site is situated above the Metro 7<sup>th</sup> Street/Metro Center Station, which serves the Metro B (Red), D (Purple), E (Expo), and A (Blue) fixed rail lines. The Project Site is also served by multiple bus and shuttle lines along Figueroa Street, Flower Street, and Olympic Boulevard operated by Metro, LADOT's Downtown Area Short Hop (DASH), LADOT's Commuter

Express (CE), Antelope Valley Transportation Authority (AVTA), Santa Monica Big Blue Bus (BBB), Foothill Transit, Orange County Transportation Authority (OCTA), Montebello Bus Lines, and Torrance Transit.

#### STUDY SCOPE

The scope of analysis for this study was developed in consultation with LADOT and is consistent with *Transportation Assessment Guidelines* (LADOT, July 2020, Updated August 2021) (TAG) and in compliance with the California Environmental Quality Act (CEQA) guidelines (California Code of Regulations, Title 14, Section 15000 and following). The base assumptions and technical methodologies (i.e., trip generation, study locations, analysis methodology, etc.) were identified as part of the study approach and were outlined in a Memorandum of Understanding (MOU) that was reviewed and approved by LADOT in February 2022 and is provided in Appendix A.

The CEQA-related analysis was conducted in accordance with *State of California Senate Bill 743* (Steinberg, 2013) (SB 743). SB 743, made effective in January 2014, required the Governor's Office of Planning and Research (OPR) to change the CEQA guidelines regarding the analysis of transportation impacts. Under SB 743, the focus of transportation analysis shifted from vehicular delay (level of service [LOS]) to vehicle miles traveled (VMT), in order to reduce greenhouse gas (GHG) emissions, create multimodal networks, and promote mixed-use developments.

A non-CEQA transportation analysis of the Project was also conducted in accordance with the TAG and includes a qualitative evaluation of the Project's localized access and circulation operations, including the anticipated LOS within the Project Area<sup>2</sup>. The non-CEQA transportation analysis is provided for informational purposes and is not required for determination of potential CEQA impacts.

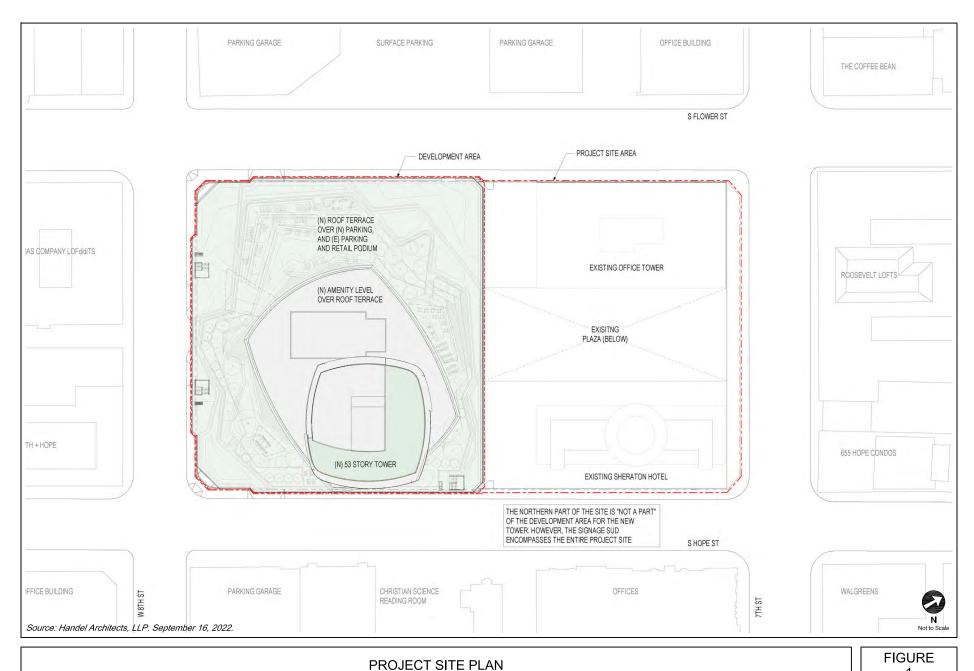
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<sup>&</sup>lt;sup>2</sup> As detailed in Section 4.3 of the TAG, the Project Area is generally defined as the area within a 0.25-mile radius of the Project Site.

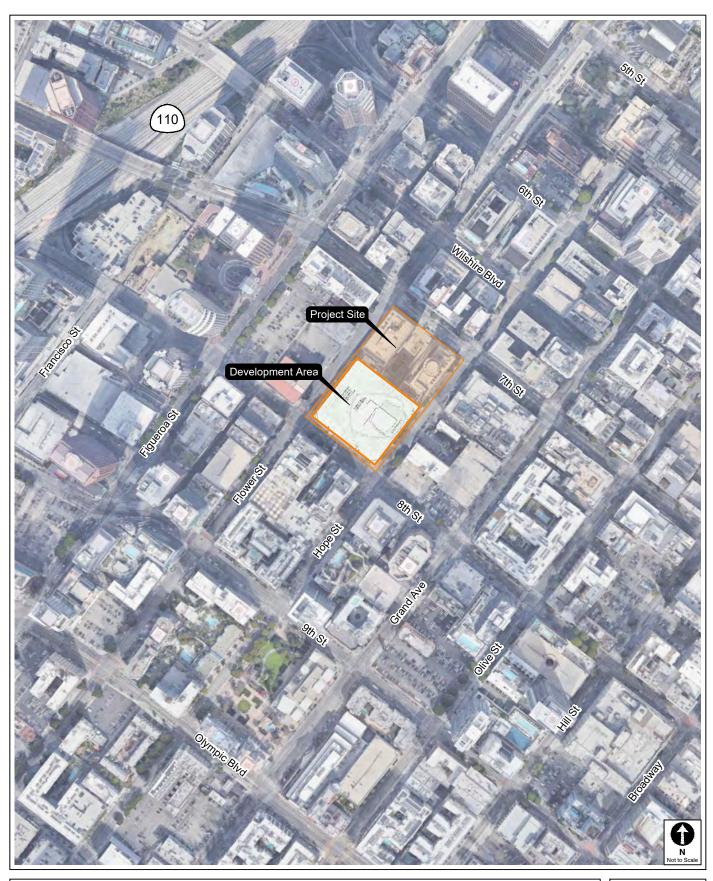
#### **ORGANIZATION OF REPORT**

This report is divided into six chapters, including this introduction. Chapter 2 describes the Project context including the existing and future circulation system, traffic volumes, and traffic conditions in the Study Area. Chapter 3 describes the Project traffic assumptions and trip generation. Chapter 4 presents the CEQA analysis of transportation impacts. Chapter 5 details the non-CEQA transportation analyses. Chapter 6 summarizes the analyses and study conclusions. The appendices contain supporting documentation, including the MOU that outlines the study scope and assumptions, and additional details supporting the technical analyses.









PROJECT SITE LOCATION

FIGURE 2

# Chapter 2 Project Context

A comprehensive data collection effort was undertaken to develop a detailed description of existing and future conditions in the Project Area.

The Existing Conditions analysis includes an assessment of the existing transportation infrastructure and conditions of the Project Area including freeway and street systems and transit service, as well as pedestrian and bicycle circulation, at the time the MOU was approved in February 2022. Peak hour turning movement counts, as well as an inventory of lane configurations, signal phasing, parking restrictions, etc., for the analyzed intersections were also collected.

In addition, this Chapter contains a discussion of the future conditions detailing the assumptions used to develop the Future without Project Conditions in Year 2031, which corresponds to expected occupancy of the Project.

#### **STUDY AREA**

The operational analysis Study Area includes signalized intersections adjacent to the Project Site<sup>3</sup>, as well as the transportation infrastructure described below. This Study Area was established in consultation with LADOT based on the following factors identified in the TAG:

- 1. Primary driveway(s)
- 2. Intersections at either end of the block on which the Project is located or up to 600 feet from the primary Project driveway(s)

<sup>&</sup>lt;sup>3</sup> The Project Site encompasses the entire block. The Project's new tower would be located within the Development Area, which encompasses the southern portion of the Project Site. The SUD signage is located throughout the Project Site.

- 3. Unsignalized intersections adjacent to the Project Site that are integral to the Project's site access and circulation plan
- 4. Signalized intersections in proximity to the Project Site where 100 or more Project trips would be added

A total of four signalized study intersections were identified for detailed analysis during the MOU process:

- 1. Flower Street & 7th Street
- 2. Hope Street & 7th Street
- 3. Flower Street & 8th Street
- 4. Hope Street & 8th Street

Figure 3 illustrates the Study Area and the four study intersections. The existing lane configurations at the study intersections are provided in Figure 4.

#### **EXISTING TRANSPORTATION CONDITIONS**

#### **Existing Street System**

The existing street system in the Project Area consists of a regional roadway system including arterials and local streets that provide regional, sub-regional, or local access and circulation to the Project. These transportation facilities generally provide two to four travel lanes and usually allow parking on one or both sides of the street. Typically, the speed limits range between 25 and 35 miles per hour (mph) on the streets and 55 mph on the freeways surrounding downtown.

Street classifications are designated in *Mobility Plan 2035*, *An Element of the General Plan* (LADCP, September 2016) (Mobility Plan). The Mobility Plan defines specific street standards in an effort to provide an enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. The Mobility Plan defines street classifications as follows:

 Arterial Streets are major streets that serve through traffic, as well as provide access to major commercial activity centers. Arterials are divided into two categories:

- Boulevards represent the widest Arterial Streets that typically provide regional access to major destinations and include two categories:
  - Boulevard I provides up to four travel lanes in each direction with a target operating speed of 40 mph, and generally includes a right-of-way (ROW) width of 136 feet and pavement width of 100 feet.
  - Boulevard II provides up to three travel lanes in each direction with a target operating speed of 35 mph, with ROW widths varying from 100-110 feet, and pavement widths from 70-80 feet.
- Avenues are typically narrower Arterial Streets that pass through both residential and commercial areas and include three categories:
  - Avenue I provides up to two travel lanes in each direction with a target operating speed of 35 mph, with a ROW width of 100 feet and pavement width of 70 feet.
  - Avenue II provides up to two travel lanes in each direction with a target operating speed of 30 mph, with a ROW width of 86 feet and pavement width of 56 feet.
  - Avenue III provides up to two travel lanes in each direction with a target operating speed of 25 mph, with a ROW width of 72 feet and pavement width of 46 feet.
- <u>Collector Streets</u> are generally located in residential neighborhoods and provide access
  to and from Arterial Streets for local traffic and are not intended for cut-through traffic.
  They provide one travel lane in each direction with operating speed of 25 mph, with a
  ROW width of 66 feet and pavement width of 40 feet.

<u>Local Streets</u> are intended to accommodate lower volumes of vehicle traffic and provide parking on both sides of the street. They provide one travel lane in each direction with a target operating speed of 15 to 20 mph. Pavement widths may vary between 30-36 feet within a ROW width of 50-60 feet.

Primary regional access to the Project Site is provided by SR 110, located approximately 0.25 miles west of the Project Site. The Project Site is served by arterial streets including Flower Street, Hope Street, 7<sup>th</sup> Street, and 8<sup>th</sup> Street. The following is a brief description of the roadways considered in the operational analysis, including their classifications under the Mobility Plan:

#### **Freeways**

<u>SR 110</u> – SR 110 generally runs in the north-south direction and is located approximately 0.25 miles west of the Project Site. In the vicinity of the Project Site, SR 110 provides three travel lanes in each direction. Access to and from SR 110 is available via interchanges at 6<sup>th</sup> Street, 8<sup>th</sup> Street, and James M. Wood Boulevard within the Project Area.

#### **Roadways**

- <u>Flower Street</u> Flower Street is a designated Modified Avenue II south of 5<sup>th</sup> Street and a designated Avenue I north of 5<sup>th</sup> Street. It generally travels one-way southbound and is located adjacent to the western boundary of the Project Site. It provides four southbound travel lanes north of 7<sup>th</sup> Street and three southbound travel lanes and a bus only lane south of 7<sup>th</sup> Street within the Project Area. Two-hour metered daytime parking is generally available on both sides of the street, with morning and afternoon peak hour restrictions on the west side of the street within the Project Area.
- Hope Street Hope Street is a designated Avenue II south of 6<sup>th</sup> Street and a designated Modified Avenue II north of 6<sup>th</sup> Street. It generally runs in the north-south direction and is located adjacent to the eastern boundary of the Project Site. It generally provides four travel lanes, two in each direction, with left-turn lanes at most intersections. Two-hour metered daytime parking is available north of 8<sup>th</sup> Street on the east side of the street. Two-hour metered parking is available on both sides of the street between 8<sup>th</sup> Street and 9<sup>th</sup> Street and south of Olympic Boulevard within the Project Area.
- <u>7<sup>th</sup> Street</u> 7<sup>th</sup> Street is a designated Modified Avenue II east of Francisco Street and a designated Avenue II west of Francisco Street. It generally runs in the east-west direction and is located adjacent to the northern boundary of the Project Site. It generally provides one travel lane each direction east of Figueroa Street and two travel lanes in each direction west of Figueroa Street, with striped bicycle lanes on both sides of the street. Daytime two-hour unmetered parking is generally available on the south side of the street between Grand Avenue and Olive Street within the Project Area.
- 8<sup>th</sup> Street 8<sup>th</sup> Street is a designated Modified Avenue III east of Olive Street, a designated Modified Avenue II east of SR 110, and a designated Avenue II west of SR 110. It generally travels one-way in the westbound direction and is located along the southern boundary of the Project Site. It generally provides four westbound travel lanes within the Project Area. Daytime two-hour metered parking is generally available on the south side of the street between Flower Street and Figueroa Street within the Project Area. Daytime four-hour metered parking is generally available on both sides of the street with morning and afternoon peak hour restrictions on the north side of the street east of Hope Street within the Project Area.

The existing intersection mobility facilities in the Project Area are shown in Figure 5 and the street designations per the Mobility Plan of the roadways within the Project Area are shown in Figure 6.

#### **Existing Pedestrian Facilities**

Figure 7 identifies local-serving commercial retail, restaurant, and cultural uses along major corridors that would be considered pedestrian destinations. An inventory was collected of existing transportation facilities serving pedestrians, bicyclists, and transit riders within the Project Site vicinity that support pedestrian activity to and from the pedestrian destinations. The existing transportation facilities within the Project Area are illustrated in Figure 8.

The walkability of existing facilities is based on the availability of pedestrian routes necessary to accomplish daily tasks without the use of an automobile. These attributes are quantified by WalkScore.com and assigned a score out of 100 points. With the various commercial businesses, employment, entertainment, and cultural centers adjacent to residential uses, the walkability of the Project Area is approximately 98 points<sup>4</sup>.

The sidewalks that serve as pedestrian routes to the Project Site provide direct connectivity and a safer pedestrian environment to accessible crossings at intersections within the Study Area. All four study intersections provide pedestrian access in the vicinity of the Project Site and have marked pedestrian crossings on all approaches. The signalized intersections also provide pedestrian facilities for access to the Project Site, as well as pedestrian phasing, crosswalk striping, and Americans with Disabilities Act (ADA) curb ramps. Pedestrian push buttons are also provided at Intersections #1 and #4.

#### **Vision Zero**

As described in *Vision Zero: Eliminating Traffic Deaths in Los Angeles by 2025* (City, August 2015), Vision Zero is a traffic safety policy that promotes strategies to eliminate transportation-related collisions that result in severe injury or death. Vision Zero has identified a High Injury Network (HIN), a network of streets included based on historic collision data, where strategic investments would have the biggest impact in reducing death and severe injury. The Project Site

<sup>4</sup> Walk Score (www.walkscore.com) rates the Project Site with a score of 98 of 100 possible points (scores assessed on February 18, 2022, for 700 S. Flower Street). Walk Score calculates the walkability of specific addresses by taking into account the ease of living in the neighborhood with a reduced reliance on automobile travel.

is located adjacent to 7<sup>th</sup> Street and 8<sup>th</sup> Street, which are identified in the HIN. Furthermore, within the Project Area, the following streets are also identified in the HIN (and depicted in Figure 8):

- Figueroa Street
- 5<sup>th</sup> Street east of Figueroa Street
- 6<sup>th</sup> Street
- 9<sup>th</sup> Street
- Olympic Boulevard
- Wilshire Boulevard

#### **Existing Bicycle System**

Based on 2010 Bicycle Plan, A Component of the City of Los Angeles Transportation Element (LADCP, adopted March 1, 2011) (2010 Bicycle Plan), the existing bicycle system consists of a limited network of bicycle lanes (Class II) and bicycle routes (Class III). Class II bicycle lanes are a component of street design with dedicated striping, separating vehicular traffic from bicycle traffic. These facilities offer a safer environment for both cyclists and motorists. Class III bicycle routes and bicycle-friendly streets are those where motorists and cyclists share the roadway and there is no separated striping for bicycle travel. Bicycle routes and bicycle-friendly streets are preferably placed on Collector and lower volume Arterial Streets. Bicycle routes with shared lane markings, or "sharrows", remind bicyclists to ride farther from parked cars to prevent collisions, increase awareness of motorists that bicycles may be in the travel lane, and show bicyclists the correct direction of travel.

The components of the 2010 Bicycle Plan have been incorporated into the bicycle network of the Mobility Plan. The Mobility Plan consists of a Bicycle Enhanced System (Low-Stress Network) (BEN) and a Bicycle Lane Network (BLN). The BEN is a subset of and supplement to the 2010 Bicycle Plan and is comprised of a network of streets that prioritize bicyclists and provide bicycle paths and protected bicycle lanes (Class IV). Class IV protected bicycle lanes including cycle tracks, bicycle traffic signals, and demarcated areas to facilitate turns at intersections and along neighborhood streets, provide further protection from other travel lanes. These Class IV networks typically provide mini-roundabouts, cross-street stop signs, crossing islands at major intersection crossings, improved street lighting, bicycle boxes, and bicycle-only left-turn pockets. Once

implemented, these facilities would offer a safer environment for both cyclists and motorists. The BLN consists of Class II bicycle lanes with striped separation. Currently, bicycle lanes are provided along Grand Avenue south of 5<sup>th</sup> Street, 7<sup>th</sup> Street, Olive Street, Broadway, and Figueroa Street within the Project Area, as depicted in Figure 8.

#### **Existing Transit System**

Figure 9 illustrates the existing transit service in the Project Area, which is served by bus lines operated by Metro, LADOT DASH, LADOT CE, Foothill Transit, AVTA, OCTA, Santa Monica BBB, Torrance Transit, and Montebello Bus Lines. In addition to the bus lines that provide service within the Project Site vicinity, the Metro B, D, A, and E fixed rail lines operate adjacent to the Project Site at the 7<sup>th</sup> Street/Metro Center Station, with direct access through a pedestrian portal from the Project Site's plaza. The Metro B Line runs between downtown and North Hollywood and the Metro D Line runs between downtown and Koreatown. The Metro A Line runs between downtown and Santa Monica.

Table 1 summarizes the various transit lines operating in the Project Area for each of the service providers in the region, the type of service (peak vs. off-peak, express vs. local), and frequency of service. The average headways during the peak hour were conservatively estimated using detailed trip and ridership data provided by Metro from April 2019, prior to the State of California (State) and City response to COVID-19 and implementation of the NextGen Bus Plan service changes, as well as schedule information from each respective transit provider.

Tables 2A and 2B summarize the total capacity of the Metro transit system and LADOT bus lines during the morning and afternoon peak hours based on the frequency of service of each line and the maximum seated and standing capacity of each bus or train. As shown in Tables 2A and 2B, the Metro and LADOT bus lines within 0.25 miles walking distance of the Project Site currently provide additional capacity for 11,111 transit riders during the morning peak hour and 10,780 transit riders during the afternoon peak hour. Additionally, the Metro B, D, A, and E Lines provide additional capacity for approximately 23,231 transit riders during the morning peak hour and 18,804 transit riders during the afternoon peak hour. In total, the public transit system in the Project Area has available capacity for approximately 34,342 additional riders during the morning peak hour and 28,884 additional riders during the afternoon peak hour. Foothill Transit, OCTA,

AVTA, Santa Monica BBB, Torrance Transit, and Montebello Bus Lines services also provide additional capacity not reported in this summary. For conservative purposes, bus lines with stop locations located more than a walking distance of 0.25 miles from the Project Site were not included.

#### **Existing Traffic Volumes**

Traffic count data collection is generally conducted during times with typical travel demand patterns (i.e., when local schools are in session, weeks without holidays, etc.). Due to the current traffic conditions related to the State and City response to COVID-19, LADOT has directed that transportation assessments utilize historical traffic count data collected prior to March 1, 2020.

Historical weekday morning (7:00 AM to 10:00 AM) and afternoon (3:00 PM to 6:00 PM) peak period intersection traffic counts from Year 2009 for Hope Street & 7<sup>th</sup> Street (Intersection #2) and Year 2017 for Flower Street & 7<sup>th</sup> Street (Intersection #1), Flower Street & 8<sup>th</sup> Street (Intersection #3), and Hope Street & 8<sup>th</sup> Street (Intersection #4), were available from LADOT databases. The traffic counts were conducted when traffic conditions were typical and schools were in session. To provide a conservative analysis, the historical traffic counts were increased at a rate of 1% per year from the date the data was collected to reflect Existing Year 2022 traffic volumes.

The existing intersection peak hour traffic volumes, representing Existing Conditions in Year 2022, are illustrated in Figure 10. Traffic count worksheets are provided in Appendix B.

#### **FUTURE CUMULATIVE TRANSPORTATION CONDITIONS**

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

"The Transportation Assessment must estimate ambient traffic conditions for the study horizon year selected during the scoping phase and recorded in the executed MOU. The study must clearly identify the horizon year and annual ambient growth rate used for the study. The horizon year should align with the development project's

expected completion year. For development projects constructed in phases over several years, the Transportation Assessment should analyze intermediary milestones before the buildout and completion of the project. The annual ambient growth rate shall be determined by LADOT staff during the scoping process and can be based on an adopted TSP, the most recent SCAG regional transportation model, the citywide transportation model, or other empirical information approved by LADOT.

"The Transportation Assessment must consider related projects. For related development projects, this should include the associated trip generation for known development projects within one-half mile (2,640 foot) radius of the project site and one-quarter mile (1,320 foot) radius of the farthest outlying study intersections. Consultation with the Department of City Planning and LADOT may be required to compile the related projects list. The City's ZIMAS database can be used to assist in identifying development projects that have submitted applications to the City of Los Angeles. Project access and circulation constraints would be determined by adding project-generated trips to future base traffic volumes including ambient growth and related projects and conducting the operational analysis."

As described in detail below, this analysis includes increases to traffic from future related development projects (Related Projects), as defined below, and from regional growth projections. The ambient growth factor discussed below likely includes some traffic increases resulting from the Related Projects. Therefore, through some inherent double-counting of vehicles, the traffic analysis provides a highly conservative estimate of Future without Project Conditions traffic volumes.

The Future without Project Conditions traffic volumes, therefore, include ambient growth, which reflects increases in traffic due to regional growth and development outside the Project Area, as well as traffic generated by ongoing or entitled projects near or within the Project Area.

#### **Ambient Traffic Growth**

Traffic levels are expected to increase over time as a result of regional growth and development in and around the Study Area. Based on discussions with LADOT through the MOU process, a conservative ambient growth factor of 1% per year compounded annually was applied to inflate the existing traffic volumes to simulate Year 2031 traffic volumes. The total adjustment applied over the eight-year period from Year 2022 to Year 2031 was 9.37%. The growth factor accounts for increases in traffic due to potential projects not yet proposed and projects located outside the Project Area.

#### **Related Projects**

In accordance with the TAG requirements, this study also considered the effects of the Project in relation to other developments either proposed, approved, or under construction (collectively, the Related Projects). By including this analysis step, the potential impact of the Project is evaluated within the context of past, present, and probable future developments capable of producing cumulative impacts.

The list of Related Projects is based on information provided by LADCP and LADOT, as well as recent studies prepared for development projects in the area. The Related Projects are detailed in Table 3 and shown in Figure 11. Though the buildout years of many of these Related Projects are uncertain and may be well beyond the buildout year of the Project, and some may never be approved or developed. Nonetheless, these Related Projects were all considered as part of this study and conservatively assumed to be completed by the Project buildout year of 2031. Thus, the traffic growth due to the development of Related Projects considered in this analysis is conservative and, by itself, substantially overestimates the actual traffic volume growth in the area that would likely occur prior to Project buildout years. With the addition of the 1% per year ambient growth factor previously discussed, the cumulative traffic estimated for the Future without Project Conditions is even more conservative.

The development of estimated traffic volumes added to the study intersections as a result of Related Projects involves the use of a three-step process: trip generation, trip distribution, and trip assignment.

<u>Trip Generation</u>. Trip generation estimates for the Related Projects were provided by LADOT or were calculated using a combination of previous study findings and the trip generation rates contained in the Institute of Transportation Engineers' [ITE] *Trip Generation Manual, 11<sup>th</sup> Edition* (2021). The Related Projects trip generation estimates summarized in Table 3 are conservative in that they do not in every case account for either the trips generated by the existing uses to be removed or the likely use of other travel modes (e.g., transit, bus, bicycling, walking, carpool, etc.) Further, these projects may not always account for internal capture trips within a multi-use development nor the interaction of trips between multiple Related Projects, particularly in a dense multi-use area setting similar to downtown Los Angeles in which one Related Project serves as the origin for a trip destined for another Related Project. For example, an office employee may

drive to work then walk to an adjacent restaurant, yet this activity would be conservatively considered as two peak hour vehicle trips. As such, some overestimating is inherent to the trip generation process when establishing future traffic volumes.

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

<u>Traffic Assignment</u>. The trip generation estimates for the Related Projects were assigned to the local street system using the trip distribution patterns developed for each project. Figure 12 shows the peak hour traffic volumes associated with these Related Projects at the study intersections.

#### Future without Project Conditions Traffic Volumes

The Related Projects volumes were then added to the existing traffic volumes after adjustment for ambient growth through the projected Project completion year of 2031. As discussed above, this is a conservative approach as many of the Related Projects may already be reflected in the ambient growth rate. These volumes represent the Future without Project Conditions (i.e., ambient traffic growth and Related Project traffic added to existing traffic volumes) for Year 2031 and are shown in Figure 13 for all study intersections.

#### **Future Roadway and Street Improvements**

The analysis of Future Conditions considered roadway improvements that were funded and reasonably expected to be implemented prior to the buildout of the Project in Year 2031. Any roadway improvement that would result in changes to the physical configuration at the study intersections would be incorporated into the analysis. Other proposed traffic / trip reduction strategies such as transportation demand management (TDM) programs for individual buildings

and developments were omitted from the Future Conditions analyses. Figure 14 illustrates the future transportation facilities improvements, including future transit, bicycle, and pedestrian facilities per the Mobility Plan, within the Project Area. The following projects were evaluated for their potential effects on the future roadway configurations. Each of these projects was determined to not influence the Future without Project Conditions due to the current development stage, speculation of completion date, or because the project does not affect at-grade configurations.

Metro Regional Connector. The Metro Regional Connector project is a 1.90-mile underground light rail system that will extend from the Metro Gold Line Little Tokyo/Arts District Station to the 7<sup>th</sup> Street/Metro Center Station, allowing passengers to make direct transfers between the A, E, B, and D Lines. The Metro Regional Connector will improve access to both local and regional destinations by providing continuous service between these lines and providing connectors to other rail lines via the 7<sup>th</sup> Street/Metro Center Station. Based on recent information provided on the Metro website<sup>5</sup>, the Metro Regional Connector is anticipated to be completed and in operation in Year 2022. The Metro Regional Connector will be underground and will not affect the at-grade street configurations of the corridors in the Study Area. No changes to the street network were made based on this project.

Los Angeles Streetcar. The Los Angeles Streetcar project will revive the historic streetcar service that once spanned 600 miles of the City in the early 20<sup>th</sup> Century. The proposed four-mile route of the Los Angeles Streetcar project will closely follow the alignments that originally ran through downtown. The Los Angeles Streetcar will enhance mobility and transit circulation and support the growth and revitalization of downtown. The Los Angeles Streetcar is anticipated to begin operation in Year 2025. However, the design of the Los Angeles Streetcar has not been finalized, remains speculative and, therefore, no changes to the intersection configurations were included in the future year analyses.

Mobility Plan. In the Mobility Plan, the City identifies key corridors as components of various "mobility-enhanced networks." Each network is intended to focus on improving a particular aspect of urban mobility, including transit, neighborhood connectivity, bicycles, pedestrians, and

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<sup>&</sup>lt;sup>5</sup> Construction updates for the Metro Regional Connector based on information provided at www.metro.net (accessed on March 23, 2022).

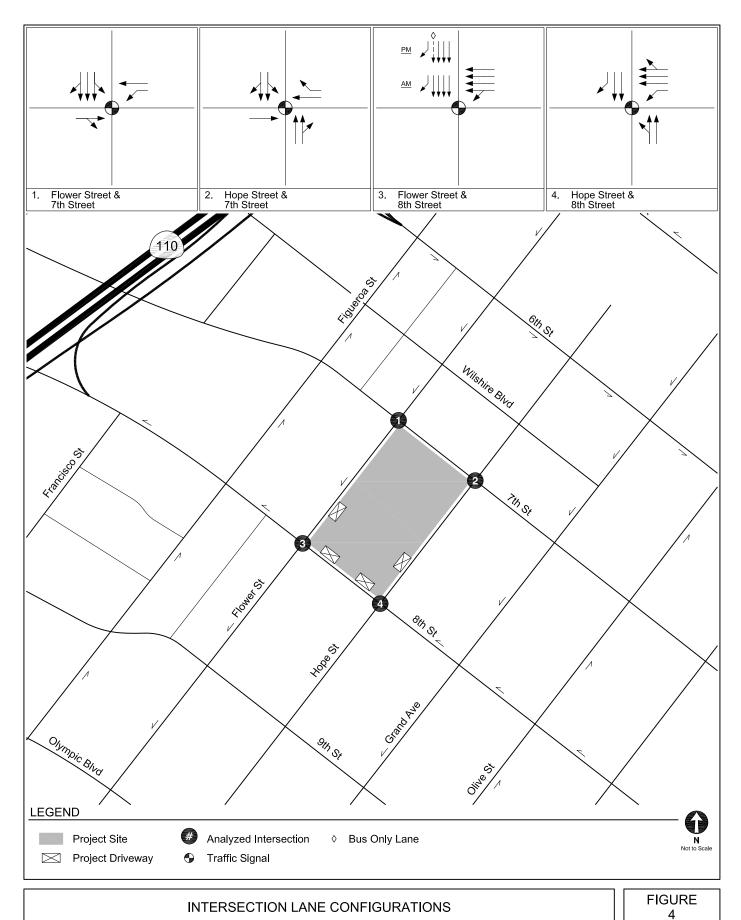
vehicles. The specific improvements that may be implemented in those networks have not yet been identified, and there is no schedule for implementation; therefore, no changes to vehicular lane configurations were made as a result of the Mobility Plan. However, the following mobility-enhanced networks included corridors within the Project Area and are depicted in Figure 14:

- <u>Transit Enhanced Network (TEN)</u>: The TEN aims to improve existing and future bus services through reliable and frequent transit service in order to increase transit ridership, reduce single-occupancy vehicle trips, and integrate transit infrastructure investments within the surrounding street system. The TEN has designated 6<sup>th</sup> Street, 5<sup>th</sup> Street, and Figueroa Street south of 6<sup>th</sup> Street within the Study Area as part of the network.
- <u>Neighborhood Enhanced Network (NEN)</u>: The NEN reflects the synthesis of the bicycle and pedestrian networks and serves as a system of local streets that are slow moving and safe enough to connect neighborhoods through active transportation. The NEN has designated Hill Street and Hope Street south of 5<sup>th</sup> Street within the Project Area as part of the network.
- <u>BEN / BLN</u>: Within the Project Area, 7<sup>th</sup> Street, Figueroa Street south of 7<sup>th</sup> Street, Grand Avenue south of Wilshire Boulevard, and Olive Street south of 7<sup>th</sup> Street have been designated as part of the BEN. Figueroa Street north of 7<sup>th</sup> Street, Hill Street south of 5<sup>th</sup> Street, and Flower Street have been designated as part of the BLN within the Study Area.
- <u>Pedestrian Enhanced District (PED)</u>: The Mobility Plan aims to promote walking to reduce
  the reliance on automobile travel by providing more attractive and pedestrian-friendly
  sidewalks, as well as adding pedestrian signalizations, street trees, and pedestrianoriented design features. All streets within the Project Area are included as part of the
  PED.

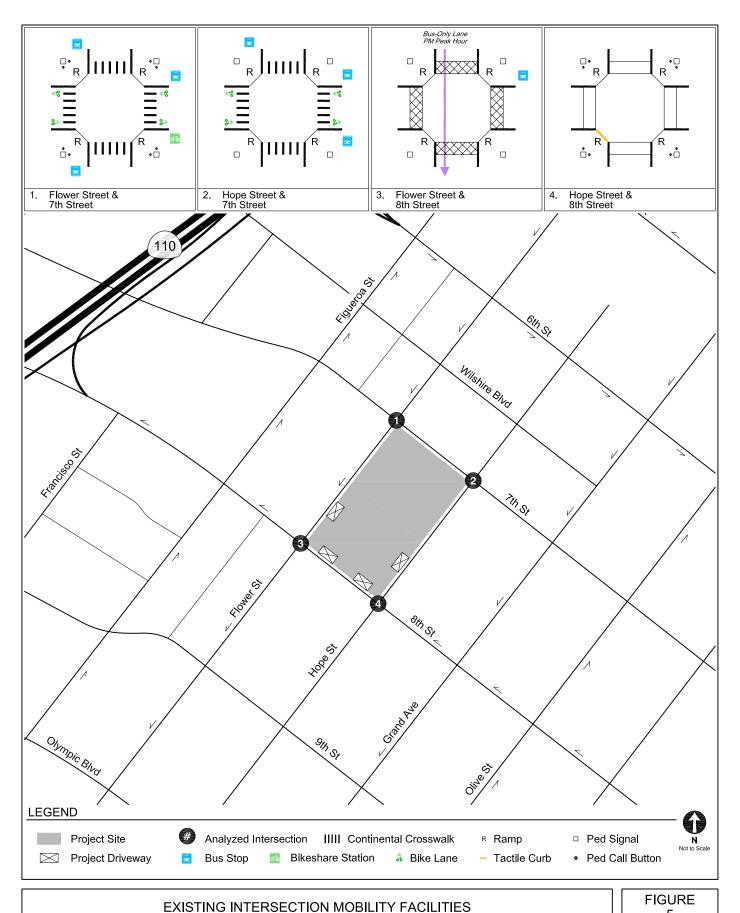




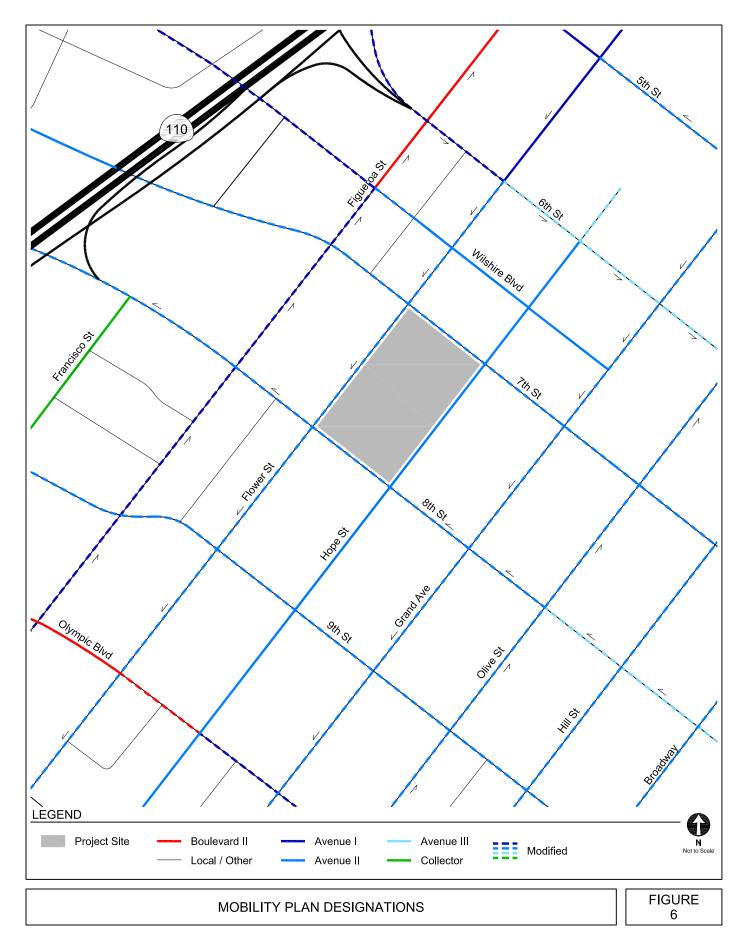




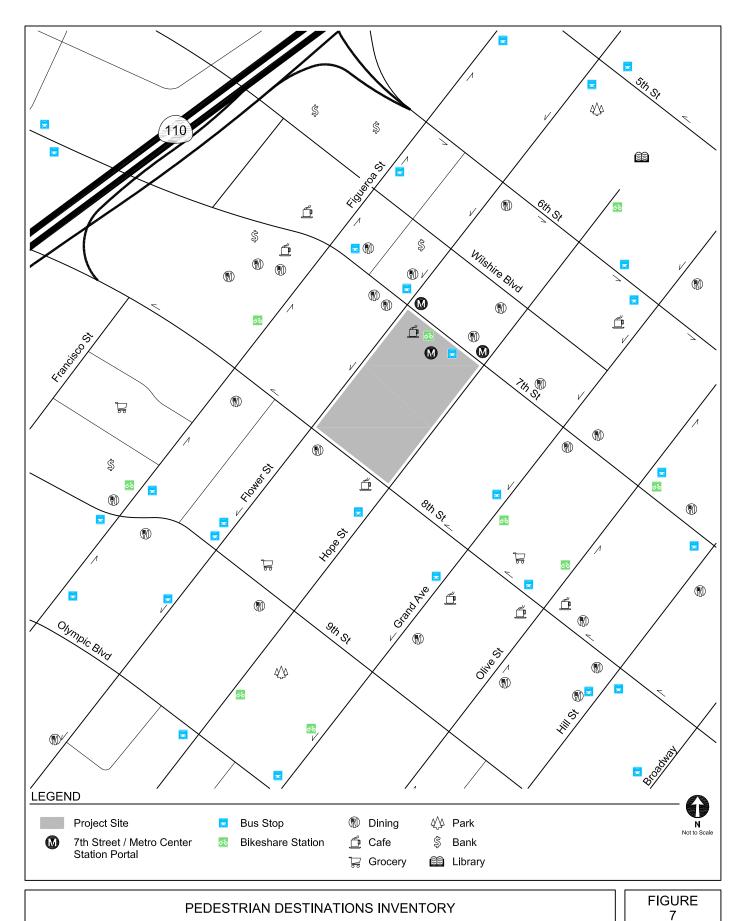




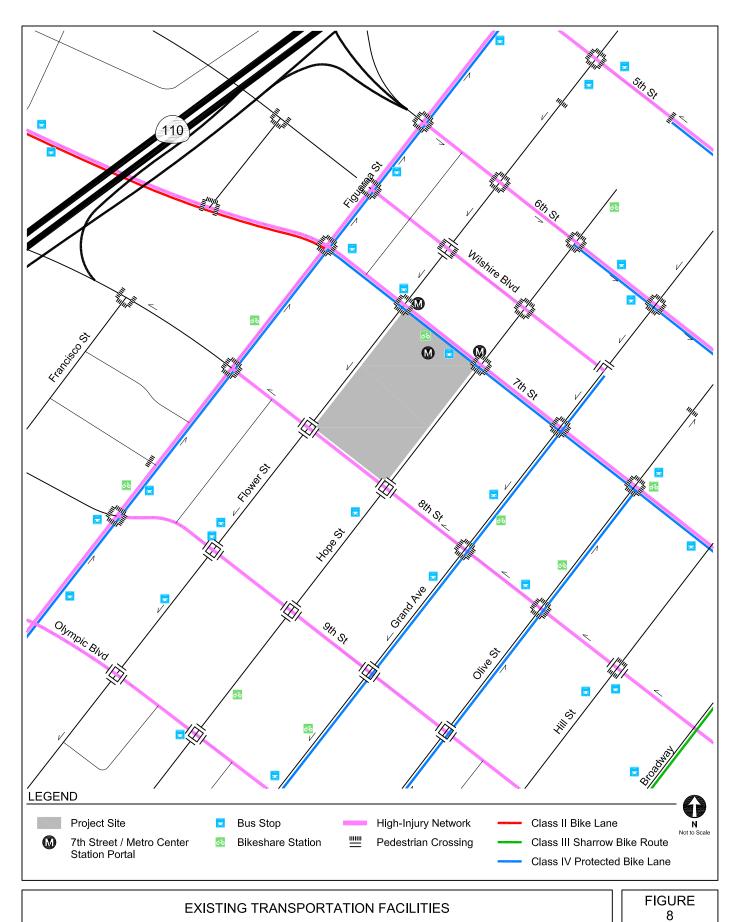




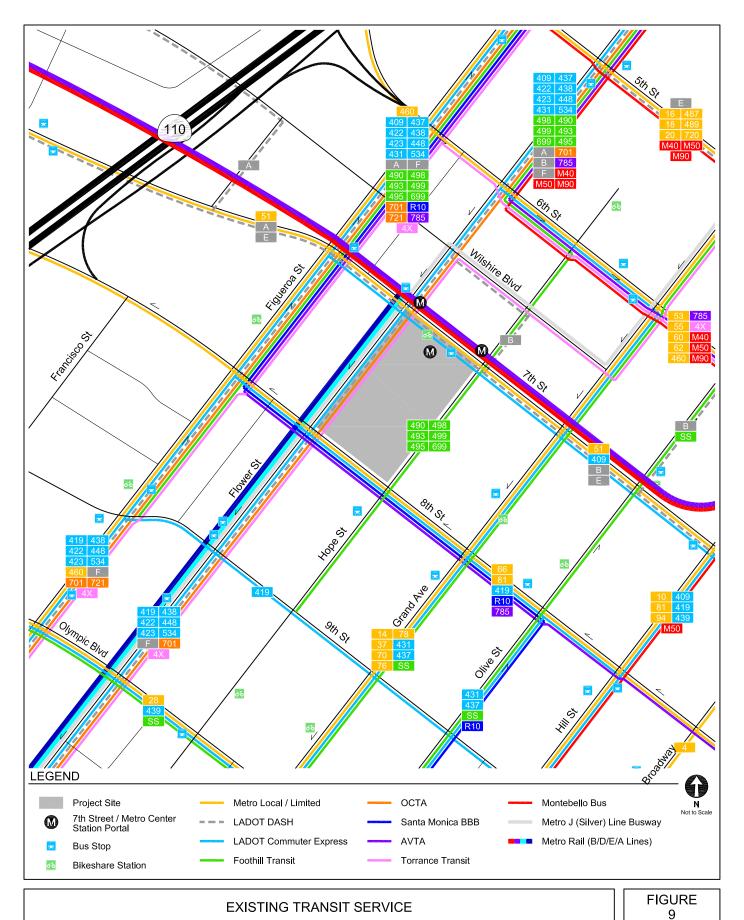




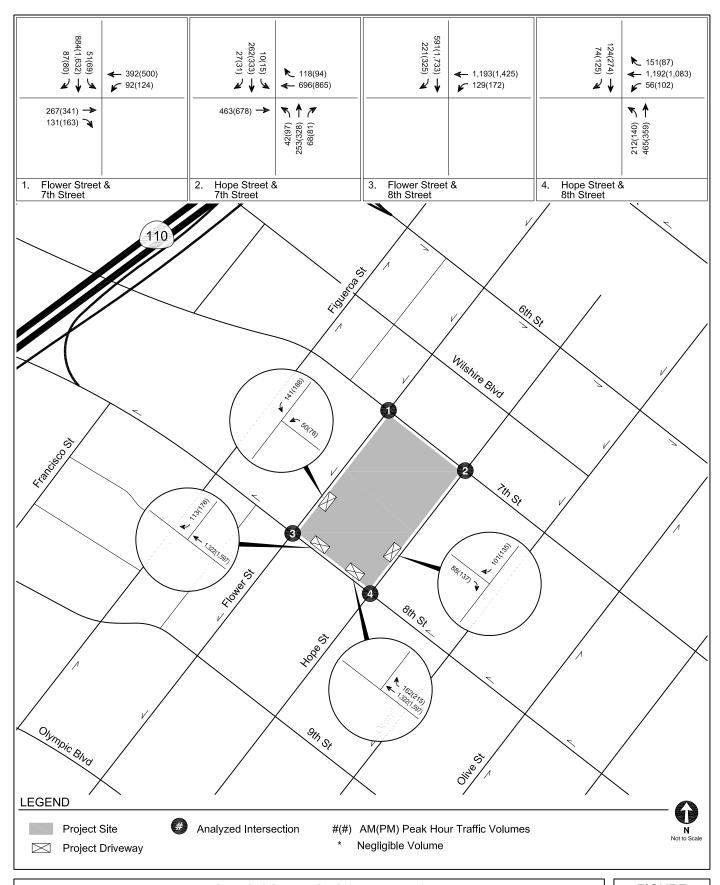






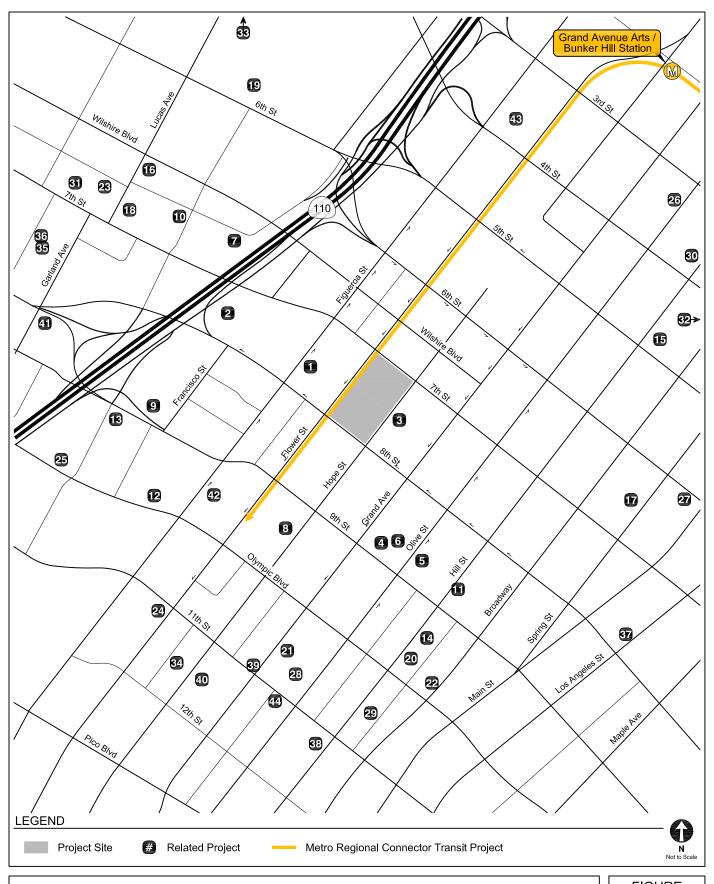






EXISTING CONDITIONS (YEAR 2022) PEAK HOUR TRAFFIC VOLUMES FIGURE 10

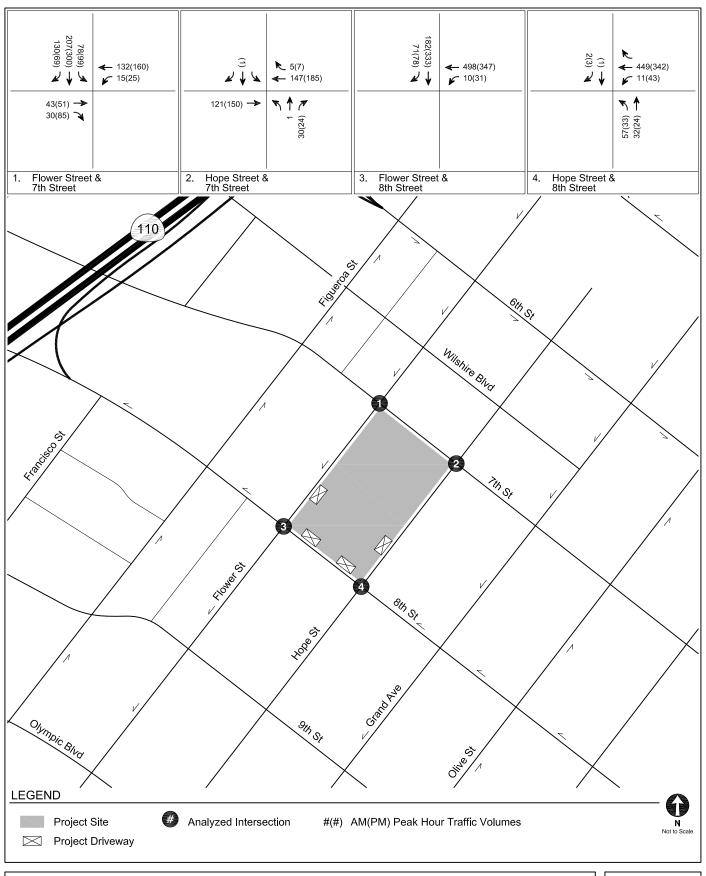




LOCATIONS OF RELATED PROJECTS

FIGURE 11

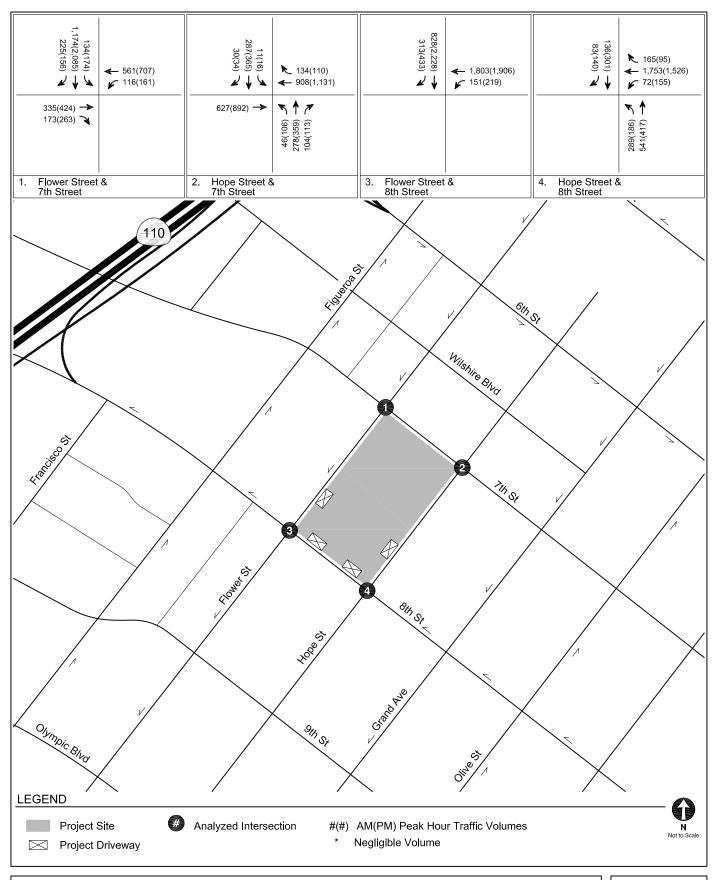




RELATED PROJECT-ONLY PEAK HOUR TRAFFIC VOLUMES

FIGURE 12





FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2031)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 13





FUTURE TRANSPORTATION FACILITIES & ROADWAY MODAL PRIORITIES

TABLE 1
EXISTING TRANSIT SERVICE

	Positive Positive 10 or 1 or 4 or 2	Service		A	Average Head	lway (minute	s)
	Provider, Route, and Service Area	Туре	Hours of Operation	AM Pea	k Period	PM Pea	k Period
Metro				NB/EB	SB/WB	NB/EB	SB/WB
4	Downtown Los Angeles - West Los Angeles - Santa Monica via Santa Monica Blvd	Local	24-Hour	12	10	10	11
10	Downtown Los Angeles - West Hollywood via Temple St & Melrose Ave	Local	4:30 AM - 1:00 AM	16	15	13	17
14	Downtown Los Angeles - Beverly Hills via Beverly Blvd	Local	5:30 AM - 1:00 AM	12	11	12	11
16	Downtown Los Angeles - Century City via 3rd St	Local	4:00 AM - 1:30 AM	7	7	7	8
18	Downtown Los Angeles/Montebello - Downtown Los Angeles/Wilshire/Western Station via 6th St & Whittier Blvd	Local	24-Hour	8	7	7	8
20	Downtown Los Angeles - Santa Monica via Wilshire Boulevard	Local	24-Hour	15	11	14	15
28	Downtown Los Angeles - Century City via W Olympic Boulevard	Local	4:30 AM - 1:30 AM	11	10	10	10
37	Downtown Los Angeles - Washington/Fairfax Transit Hub via Adams Blvd	Local	4:30 AM - 1:15 AM	12	11	11	11
51	Westlake/MacArthur Park - CSU Dominguez Hills via San Pedro St & Avalon BI	Local	4:30 AM - 11:00 PM	9	8	7	8
53	Downtown Los Angeles - CSU Dominguez Hills via Central Ave	Local	4:30 AM - 10:00 PM	11	10	11	11
55	Downtown Los Angeles - Willowbrook Station via Compton Avenue	Local	5:00 AM - 9:30 PM	15	15	15	15
60	Downtown Los Angeles - Artesia Station via Long Beach Blvd, Owl Service to Downtown Long Beach	Local	24-Hour	9	8	6	7
62	Downtown Los Angeles - Hawaiian Gardens via Telegraph Rd	Local	5:00 AM - 12:00 AM	60	34	30	48
66	Wilshire Center - Downtown Los Angeles - Montebello via 8th Street & Olympic Boulevard	Local	4:30 AM - 1:30 AM	10	11	10	10
70	Downtown Los Angeles - El Monte via Garvey Ave	Local	24-Hour	10	10	9	10
76	Downtown Los Angeles - El Monte via Valley Blvd	Local	24-Hour	20	20	22	20
78	Downtown Los Angeles - Temple City via Las Tunas Drive & Mission Road	Local	4:00 AM - 1:30 AM	12	13	12	11
81	Eagle Rock - Downtown Los Angeles - Harbor Freeway Station via Figueroa St	Local	24-Hour	22	27	20	20
94	Downtown Los Angeles - North Hollywood Station via San Fernando Rd	Local	4:30 AM - 2:00 AM	15	17	17	15
460	Downtown Los Angeles - Disneyland via Harbor Transitway & I-105 Freeway	Express	4:00 AM - 2:00 AM	34	27	24	34
487 - 489	Downtown Los Angeles - Sierra Madre Villa Station - El Monte Station	Express	5:30 AM - 9:30 PM	40	24	22	40
720	LA/Commerce - Santa Monica via Wilshire BI & Whittier Blvd	Rapid	6:00 A.M - 2:30 AM	6	6	6	6

### TABLE 1 (CONTINUED) EXISTING TRANSIT SERVICE

	P. 11 - P. 4 10 - 1 - 4	Service		Α	verage Head	lway (minute	s)
	Provider, Route, and Service Area	Туре	Hours of Operation	AM Pea	k Period	PM Pea	k Period
Metro Rail				NB/EB	SB/WB	NB/EB	SB/WB
В	Downtown Los Angeles - North Hollywood	Rail	4:30 A.M 2:00 A.M.	15	15	15	15
D			4:30 A.M 2:00 A.M.	15	15	15	15
A Downtown Los Angeles - Long Beach		Rail	4:30 A.M 1:00 A.M.	8	8	9	10
E Downtown Los Angeles - Santa Monica		Rail 4:00 A.M 1:00 A.M.		10	9	9	9
Metro Transitway				NB/EB	SB/WB	NB/EB	SB/WB
Silver Harbor Gateway Transit Center - El Monte		BRT	4:00 AM - 1:30 AM	8	8	8	9
LADOT DAS	н			NB/EB	SB/WB	NB/EB	SB/WB
А	Little Tokyo - City West	Local	6:00 AM - 9:00 PM	7	7	7	7
В	Chinatown - Financial District	Local	6:00 AM - 9:00 PM	8	8	8	8
E	Westlake/MacArthur Park - Fashion District	Local	6:00 AM - 9:00 PM	5	5	5	5
F	Financial District - Exposition Park	Local	6:00 AM - 9:00 PM	10	10	10	10
LADOT Com	muter Express			NB/EB	SB/WB	NB/EB	SB/WB
409	Montrose - Tujunga - Sunland - Lake View Terrace - Glendale - Downtown Los Angeles	Express	6:00 AM - 7:30 PM	N/A	19	26	N/A
419	Chatsworth - Northridge - Granada Hills - Mission Hills - Downtown Los Angeles	Express	5:30 AM - 8:30 PM	N/A	17	26	N/A
422	Hollywood - San Fernando Valley - Agoura Hills - Thousand Oaks - Downtown Los Angeles	Express	4:30 AM - 8:30 PM	N/A	30	27	N/A
423	Thousand Oaks - Agoura Hills - Woodland Hills - LADOT Encino Park & Ride - Downtown Los Angeles	Express	6:00 AM - 9:00 AM; 3:00 PM - 8:00 PM	N/A	17	18	N/A
431	Westwood - Palms - Downtown Los Angeles	Express	6:30 AM - 7:30 PM	N/A	38	45	N/A
437	Venice - Marina Del Rey - Mar Vista - Culver City - Downtown Los Angeles	Express	6:00 AM - 7:00 PM	N/A	30	30	N/A
438	Redondo Beach - Hermosa Beach - Manhattan Beach - El Segundo - Downtown Los Angeles	Express	5:30 AM - 7:30 PM	N/A	13	16	N/A
439	El Segundo - Downtown Los Angeles	Express	6:00 AM - 7:30 PM	N/A	45	45	N/A
448	Rancho Palos Verdes - Rolling Hills Estates - Harbor City	Express	5:30 AM - 7:00 PM	N/A	19	15	N/A
534	Westwood - Century City - West Los Angeles - Downtown Los Angeles	Express	7:00 AM - 6:30 PM	N/A	30	30	N/A

### TABLE 1 (CONTINUED) EXISTING TRANSIT SERVICE

	Provider, Route, and Service Area	Service	Hours of Operation	A	verage Head	dway (minute	s)
	Flovider, Noute, and Service Area	Туре	riours of Operation	AM Pea	k Period	PM Pea	k Period
Foothill Tran	sit			NB/EB	SB/WB	NB/EB	SB/WB
<ul> <li>490 Grand Avenue Park &amp; Ride - Covina Transit Center - Downtown Los Angeles</li> <li>493 Diamond Bar - Rowland Heights - Downtown Los Angeles</li> </ul>			4:30 AM - 9:30 PM	N/A	20	18	N/A
		Express	4:30 AM - 8:30 PM	N/A	15	16	N/A
495 Industry Park & Ride - Rowland Heights - Downtown Los Angeles		Express	5:00 AM - 7:45 PM	N/A	20	24	N/A
498 Azusa - West Covina - Downtown Los Angeles		Express	4:30 AM - 8:00 PM	N/A	22	20	N/A
499 San Dimas Park & Ride - Via Verde Park & Ride - Los Angeles		Express	5:00 AM - 8:00 PM	N/A	24	27	N/A
699 Montclair - Fairplex Park & Ride - Cal State LA - USC Medical Center - Downtown Los Angeles		Express	4:00 AM - 8:00 PM	N/A	17	17	N/A
SS Silver Streak - Montclair - Downtown Los Angeles		Express	24-Hour	20	16	18	15
OCTA				NB/EB	SB/WB	NB/EB	SB/WB
701	Huntington Beach - Los Angeles	Express	5:30 AM - 7:00 PM	60	N/A	N/A	60
721	Fullerton - Los Angeles	Express	5:00 AM - 7:30 PM	36	N/A	N/A	36
Santa Monica	a Big Blue Bus			NB/EB	SB/WB	NB/EB	SB/WB
R10	Santa Monica - Downtown Los Angeles	Rapid	5:30 AM - 9:30 PM	18	N/A	N/A	15
Antelope Val	ley Transit Authority			NB/EB	SB/WB	NB/EB	SB/WB
785	Palmdale/Lancaster - Downtown Los Angeles	Express	5:00 AM - 8:00 PM	26	N/A	N/A	23
Torrance Tra	nsit			NB/EB	SB/WB	NB/EB	SB/WB
4X	Torrance - Downtown Los Angeles	Express	5:00 AM - 8:00 PM	30	N/A	N/A	30
Montebello Bus Lines				NB/EB	SB/WB	NB/EB	SB/WB
M40	M40 Montebello - Whittier - Downtown Los Angeles		4:45 AM - 11:00 PM	17	18	18	17
M50	M50 La Mirada - Downtown Los Angeles		4:30 AM - 11:15 PM	36	48	60	60
M90	Montebello - Whittier - Downtown Los Angeles	Express	8:00 AM - 5:00 PM	36	60	36	36

#### Notes:

Metro: Los Angeles County Metropolitan Transportation Authority
LADOT Downtown Area Short Hop (DASH) & Commuter Express: Los Angeles Department of Transportation
OCTA: Orange County Transportation Authority
Santa Monica Big Blue Bus: City of Santa Monica Big Blue Bus
Torrance Transit: City of Torrance Transit Department
AM Peak from 6-10 AM
PM Peak from 3-7 PM

TABLE 2A
TRANSIT SYSTEM CAPACITY IN PROJECT AREA - MORNING PEAK HOUR

Provider, Route, and Service Area			Capacity		Peak Hour I	Ridership [b	)]	Average I	Remaining	Remaining	Peak Hour
Provider, Rou	ite, and Service Area	Stop Location	per Trip	Peak	Load	Averag	ge Load	Capacity	per Trip	Cap	acity
			[a]	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
Metro Bus Se	rvice										ı
4	Downtown Los Angeles - West Los Angeles - Santa Monica via Santa Monica Blvd	Hill St at 8th St	50	11	7	7	4	43	46	215	288
10	Downtown Los Angeles - West Hollywood via Temple St & Melrose Ave	Hill St at 8th St	50	17	32	12	12	38	38	143	152
14	Downtown Los Angeles - Beverly Hills via Beverly Blvd	NB: Olive St at 8th St SB: Grand Ave at 7th St	50	16	14	10	8	40	42	200	231
16	Downtown Los Angeles - Century City via 3rd St	NB: Hope St at 6th St SB: Grand Ave at 5th St	50	30	15	16	9	34	41	281	349
18	Downtown Los Angeles/Montebello - Downtown Los Angeles/Wilshire/Western Station via 6th St & Whittier Blvd	NB: Hope St at 6th St SB: Grand Ave at 5th St	50	35	20	23	15	27	35	203	289
20	Downtown Los Angeles - Santa Monica via Wilshire Boulevard	EB: Flower St at 6th St WB: Flower St at 5th St	50	11	24	9	13	41	37	164	194
28	Downtown Los Angeles - Century City via W Olympic Boulevard	Olympic BI at Flower St	50	28	14	19	7	31	43	171	258
37	Downtown Los Angeles - Washington/Fairfax Transit Hub via Adams Blvd	NB: Olive St at 8th St SB: Grand Ave at 7th St	50	N/A	14	N/A	8	N/A	42	N/A	221
51	Westlake/MacArthur Park - CSU Dominguez Hills via San Pedro St & Avalon Bl	Flower St at 7th St	50	20	40	12	30	38	20	247	160
53	Downtown Los Angeles - CSU Dominguez Hills via Central Ave	NB: Grand Ave at 6th St SB: Flower St at 5th St	50	3	6	1	4	49	46	270	265
55	Downtown Los Angeles - Willowbrook Station via Compton Avenue	NB: Grand Ave at 6th St SB: Flower St at 5th St	50	11	8	6	6	44	44	176	176
60	Downtown Los Angeles - Artesia Station via Long Beach Blvd, Owl Service to Downtown Long Beach	NB: Olive St at 5th St SB: Grand Ave at 6th St	50	8	7	4	4	46	46	311	368
62	Downtown Los Angeles - Hawaiian Gardens via Telegraph Rd	NB: Grand Ave at 6th St SB: Flower St at 5th St	50	3	4	1	1	49	49	49	86
66	Wilshire Center - Downtown Los Angeles - Montebello via 8th Street & Olympic Boulevard	EB: Hope St at 9th St WB: Flower St at 8th St	50	58	20	38	12	12	38	72	209
70	Downtown Los Angeles - El Monte via Garvey Ave	NB: Olive St at 7th St SB: Grand Ave at 7th St	50	10	8	6	5	44	45	264	270
76	Downtown Los Angeles - El Monte via Valley Blvd	NB: Olive St at 7th St SB: Grand Ave at 7th St	50	8	6	4	4	46	46	138	138
78	Downtown Los Angeles - Temple City via Las Tunas Drive & Mission Road	NB: Olive St at 7th St SB: Grand Ave at 7th St	50	9	9	5	5	45	45	225	214
81	Eagle Rock - Downtown Los Angeles - Harbor Freeway Station via Figueroa St	NB: Hope St at 9th St SB: Flower St at 9th St	50	20	18	13	13	37	37	102	83
94	Downtown Los Angeles - North Hollywood Station via San Fernando Rd	Hill St at 7th St	50	11	7	7	5	43	45	172	158
460	Downtown Los Angeles - Disneyland via Harbor Transitway & I-105 Freeway	NB: Figuera St at 7th St SB: Flower St at 7th St	50	17	11	9	9	41	41	72	92
487 - 489	Downtown Los Angeles - Sierra Madre Villa Station - El Monte Station	EB: Flower St at 6th St WB: Flower St at 5th St	50	11	16	7	9	43	41	65	103
720	LA/Commerce - Santa Monica via Wilshire Bl & Whittier Blvd	EB: Grand Ave at 6th St WB: Grand Ave at 5th St	75	9	23	8	12	67	63	620	614
Silver	Harbor Gateway Transit Center - El Monte	NB: Figuera St at 7th St SB: Flower St at 7th St	75	25	26	17	15	58	60	435	435

### TABLE 2A (CONTINUED) TRANSIT SYSTEM CAPACITY IN PROJECT AREA - MORNING PEAK HOUR

			Capacity		Peak Hour	Ridership [b	p]		Remaining		g Peak Hour
Provider, Ro	oute, and Service Area	Stop Location	per Trip	Peal	Load	Averag	ge Load	Capacity	per Trip	Cap	acity
			[a]	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
LADOT DAS	н										
А	Little Tokyo - City West	NB: Figueroa St at 5th St SB: Flower St at 5th St	30	20	9	7	5	23	25	127	138
В	Chinatown - Financial District	NB: Olive St at 7th St SB: Hope St at 7th St	30	7	7	3	2	27	28	149	154
E	Westlake/MacArthur Park - Fashion District	7th St at Flower St	30	30 30 6 14 24 16 1						132	88
F	Financial District - Exposition Park	NB: Figuera St at 7th St SB: Flower St at 7th St	30	23 8 6 4 24 26 180						180	195
LADOT Com	muter Express										
409	Montrose - Tujunga - Sunland - Lake View Terrace - Glendale - Downtown Los Angeles	Hope St at 7th St	49								
419	Chatsworth - Northridge - Granada Hills - Mission Hills - Downtown Los Angeles	Flower St at 8th St	49								
422	Hollywood - San Fernando Valley - Agoura Hills - Thousand Oaks - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 7th St	49								
423	Thousand Oaks - Agoura Hills - Woodland Hills - LADOT Encino Park & Ride - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 7th St	49								
431	Westwood - Palms - Downtown Los Angeles	NB: Grand Ave at 7th St SB: Flower St at 8th St	49			Bidarahin Da	ata Informati	on not Curro	ntly Availah	lo	
437	Venice - Marina Del Rey - Mar Vista - Culver City - Downtown Los Angeles	NB: Grand Ave at 7th St SB: Flower St at 8th St	49		,	Nuersnip De	ata miorinati	on not carre	пиу Ачапар	16	
438	Redondo Beach - Hermosa Beach - Manhattan Beach - El Segundo - Downtown Los Angeles	NB: Figuera St at 5th St SB: Flower St at 3rd St	49								
439	El Segundo - Downtown Los Angeles	Hill St at 8th St	49								
448	Rancho Palos Verdes - Rolling Hills Estates - Harbor City	NB: Figuera St at 7th St SB: Flower St at 7th St	49								
534	Westwood - Century City - West Los Angeles - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 7th St	49								
Foothill Trai	nsit										
490	Grand Avenue Park & Ride - Covina Transit Center - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 6th St	50								
493	Diamond Bar - Rowland Heights - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 6th St	50								
495	Industry Park & Ride - Rowland Heights - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 6th St	50	Ridership Data Information not Currently Available							
498	Azusa - West Covina - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 6th St	50								
499	San Dimas Park & Ride - Via Verde Park & Ride - Los Angeles	NB: Figuera St at 7th St SB: Flower St at 6th St	50								
699	Montclair - Fairplex Park & Ride - Cal State LA - USC Medical Center - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 6th St	50								
SS	Silver Streak - Montclair - Downtown Los Angeles	NB: Olive St at Olympic Bl SB: Grand Ave at 9th St	50								

### TABLE 2A (CONTINUED) TRANSIT SYSTEM CAPACITY IN PROJECT AREA - MORNING PEAK HOUR

			Capacity		Peak Hour	Ridership [b	)]	Average I	Remaining	Remaining	Peak Hour
Provider, Rou	ute, and Service Area	Stop Location	per Trip	Peak	Load	Averag	ge Load		per Trip		acity
			[a]	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
OCTA											
701	Huntington Beach - Los Angeles	NB: Figuera St at 7th St SB: Flower St at 7th St	50			Bidorohin Do	oto Informati	on not Curre	ntly Availah	lo	
721	Fullerton - Los Angeles	NB: Figuera St at 7th St SB: Flower St at Olympic Bl	50			Nuersnip De	ila iliiOililali	on not curre	nuy Avanab		
Santa Monica	a Big Blue Bus										
R10	Santa Monica - Downtown Los Angeles	NB: Figuera St at 7th St SB: Wilshire Bl at Hope St	50		ı	Ridership Da	ata Informati	on not Curre	ntly Availab	le	
Antelope Val	ley Transit Authority										
785	Palmdale/Lancaster - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 6th St	50	Ridership Data Information not Currently Available							
Torrance Tra	nsit			<u>.</u>							
4X	Torrance - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 7th St	50			Ridership Da	ata Informati	on not Curre	ntly Availab	le	
Montebello B	dus Lines										
M40	Montebello - Whittier - Downtown Los Angeles	EB: Flower St at 6th St WB: Flower St at 5th St	50								
M50	La Mirada - Downtown Los Angeles	EB: Flower St at 6th St WB: Flower St at 5th St	50			Ridership Da	ata Informati	on not Curre	ntly Availab	le	
M90	Montebello - Whittier - Downtown Los Angeles	EB: Flower St at 6th St WB: Flower St at 5th St	50								
					Total Re	emaining Pe	eak Hour Bu	ıs Ridership	Capacity	11,	,111
Metro Rail Se	ervice										
B/D	Downtown Los Angeles - North Hollywood Downtown Los Angeles - Koreatown	7th St/Metro	1250	346	416	289	350	961	900	7,688	7,200
Α	Downtown Los Angeles - Long Beach	7th St/Metro	375	N/A 82 N/A 69 N/A 306 N/A 4						4,437	
E	Downtown Los Angeles - Santa Monica	7th St/Metro	375	N/A	110	N/A	96	N/A	279	N/A	3,906
					Total R	emaining Pe	eak Hour Ra	il Ridership	Capacity	23,	,231
					Total Rema	aining Peak	Hour Trans	it Ridership	Capacity	34,	,342

#### Notes:

Metro: Los Angeles County Metropolitan Transportation Authority

LADOT DASH: Los Angeles Department of Transportation Downtown Area Short Hop.

[a] Capacity assumptions:

Metro Bus - 40 seated / 50 seated and standing

Metro Articulated Bus - 66 seated / 75 seated and standing

LADOT DASH - 25 seated / 30 seated and standing

LADOT Commuter Express Bus - 49 seated

Foothill Transit - 50 seated and standing

OCTA - 50 seated and standing

Santa Monica Big Blue Bus - 50 seated and standing

Torrance Transit - 50 seated and standing

Montebello Bus Lines - 50 seated and standing

Metro B Line - 55 seats / car, 6 cars / run during peak periods. Metro assumes a maximum capacity of 230% of seated capacity, or approximately 125 / car

Metro D Line - 55 seats / car, 4 cars / run during peak periods. Metro assumes a maximum capacity of 230% of seated capacity, or approximately 125 / car

Metro A or E Line - 55 seats / car, 3 cars / run during peak periods. Metro assumes a maximum capacity of 230% of seated capacity, or approximately 125 / car

[b] Ridership information based on data from Metro and LADOT for 2019.

TABLE 2B
TRANSIT SYSTEM CAPACITY IN PROJECT AREA - AFTERNOON PEAK HOUR

Provider, Route, and Service Area			Capacity		Peak Hour I	Ridership [b	)]	Average I	Remaining	Remaining	Peak Hour
Provider, Rou	ate, and Service Area	Stop Location	per Trip	Peak	Load	Averaç	ge Load	Capacity	per Trip	Сар	acity
			[a]	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
Metro Bus Se	rvice										
4	Downtown Los Angeles - West Los Angeles - Santa Monica via Santa Monica Blvd	Hill St at 8th St	50	7	16	4	8	46	42	288	231
10	Downtown Los Angeles - West Hollywood via Temple St & Melrose Ave	Hill St at 8th St	50	27	21	19	12	31	38	140	133
14	Downtown Los Angeles - Beverly Hills via Beverly Blvd	NB: Olive St at 8th St SB: Grand Ave at 7th St	50	19	20	11	12	39	38	195	200
16	Downtown Los Angeles - Century City via 3rd St	NB: Hope St at 6th St SB: Grand Ave at 5th St	50	13	35	8	21	42	29	357	232
18	Downtown Los Angeles/Montebello - Downtown Los Angeles/Wilshire/Western Station via 6th St & Whittier Blvd	NB: Hope St at 6th St SB: Grand Ave at 5th St	50	29	41	20	25	30	25	248	194
20	Downtown Los Angeles - Santa Monica via Wilshire Boulevard	EB: Flower St at 6th St WB: Flower St at 5th St	50	21	27	9	19	41	31	174	124
28	Downtown Los Angeles - Century City via W Olympic Boulevard	Olympic BI at Flower St	50	19	26	12	18	38	32	219	184
37	Downtown Los Angeles - Washington/Fairfax Transit Hub via Adams Blvd	NB: Olive St at 8th St SB: Grand Ave at 7th St	50	N/A	20	N/A	12	N/A	38	N/A	209
51	Westlake/MacArthur Park - CSU Dominguez Hills via San Pedro St & Avalon Bl	Flower St at 7th St	50	47	33	28	22	22	28	182	217
53	Downtown Los Angeles - CSU Dominguez Hills via Central Ave	NB: Grand Ave at 6th St SB: Flower St at 5th St	50	4	18	1	7	49	43	270	226
55	Downtown Los Angeles - Willowbrook Station via Compton Avenue	NB: Grand Ave at 6th St SB: Flower St at 5th St	50	9	20	6	12	44	38	176	152
60	Downtown Los Angeles - Artesia Station via Long Beach Blvd, Owl Service to Downtown Long Beach	NB: Olive St at 5th St SB: Grand Ave at 6th St	50	5	8	3	4	47	46	447	380
62	Downtown Los Angeles - Hawaiian Gardens via Telegraph Rd	NB: Grand Ave at 6th St SB: Flower St at 5th St	50	4	13	1	9	49	41	98	51
66	Wilshire Center - Downtown Los Angeles - Montebello via 8th Street & Olympic Boulevard	EB: Hope St at 9th St WB: Flower St at 8th St	50	19	54	16	37	34	13	196	81
70	Downtown Los Angeles - El Monte via Garvey Ave	NB: Olive St at 7th St SB: Grand Ave at 7th St	50	10	7	6	6	44	44	308	253
76	Downtown Los Angeles - El Monte via Valley Blvd	NB: Olive St at 7th St SB: Grand Ave at 7th St	50	9	5	6	4	44	46	121	138
78	Downtown Los Angeles - Temple City via Las Tunas Drive & Mission Road	NB: Olive St at 7th St SB: Grand Ave at 7th St	50	10	9	6	5	44	45	220	236
81	Eagle Rock - Downtown Los Angeles - Harbor Freeway Station via Figueroa St	NB: Hope St at 9th St SB: Flower St at 9th St	50	18	25	13	19	37	31	111	93
94	Downtown Los Angeles - North Hollywood Station via San Fernando Rd	Hill St at 7th St	50	16	7	11	4	39	46	137	184
460	Downtown Los Angeles - Disneyland via Harbor Transitway & I-105 Freeway	NB: Figuera St at 7th St SB: Flower St at 7th St	50	38	6	30	4	20	46	50	81
487 - 489	Downtown Los Angeles - Sierra Madre Villa Station - El Monte Station	EB: Flower St at 6th St WB: Flower St at 5th St	50	21	9	11	7	39	43	107	65
720	LA/Commerce - Santa Monica via Wilshire Bl & Whittier Blvd	EB: Grand Ave at 6th St WB: Grand Ave at 5th St	75	19	39	12	26	63	49	646	466
Silver	Harbor Gateway Transit Center - El Monte	NB: Figuera St at 7th St SB: Flower St at 7th St	75	24	52	14	35	61	40	442	280

### TABLE 2B (CONTINUED) TRANSIT SYSTEM CAPACITY IN PROJECT AREA - AFTERNOON PEAK HOUR

		Commodition (Commodition)	Peak Hour Ridership [b] Average Remaining Remaining							1	
Describber D	and Combas Assa	Oten Leastien	Capacity						Remaining per Trip		Peak Hour acity
Provider, Ro	oute, and Service Area	Stop Location	per Trip [a]	NB/EB	Load SB/WB	NB/EB	ge Load SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
				NB/EB	2B/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	2B/MR
LADOT DAS	н										
А	Little Tokyo - City West	NB: Figueroa St at 5th St SB: Flower St at 5th St	30	17	16	7	4	23	26	127	143
В	Chinatown - Financial District	NB: Olive St at 7th St SB: Hope St at 7th St	30	8	6	2	2	28	28	154	154
E	Westlake/MacArthur Park - Fashion District	7th St at Flower St	30	30	14	11	3	19	27	105	149
F	Financial District - Exposition Park	NB: Figuera St at 7th St SB: Flower St at 7th St	30	17 7 5 1 25 29						188	218
LADOT Com	nmuter Express										
409	Montrose - Tujunga - Sunland - Lake View Terrace - Glendale - Downtown Los Angeles	Hope St at 7th St	49								
419	Chatsworth - Northridge - Granada Hills - Mission Hills - Downtown Los Angeles	Flower St at 8th St	49								
422	Hollywood - San Fernando Valley - Agoura Hills - Thousand Oaks - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 7th St	49								
423	Thousand Oaks - Agoura Hills - Woodland Hills - LADOT Encino Park & Ride - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 7th St	49								
431	Westwood - Palms - Downtown Los Angeles	NB: Grand Ave at 7th St SB: Flower St at 8th St	49		,	Ridership Da	ıta İnformati	on not Curre	ntly Availahi	۵	
437	Venice - Marina Del Rey - Mar Vista - Culver City - Downtown Los Angeles	NB: Grand Ave at 7th St SB: Flower St at 8th St	49		,	duership De	ita irii Orriiatii	on not carre	ntiy Availabi	0	
438	Redondo Beach - Hermosa Beach - Manhattan Beach - El Segundo - Downtown Los Angeles	NB: Figuera St at 5th St SB: Flower St at 3rd St	49								
439	El Segundo - Downtown Los Angeles	Hill St at 8th St	49								
448	Rancho Palos Verdes - Rolling Hills Estates - Harbor City	NB: Figuera St at 7th St SB: Flower St at 7th St	49								
534	Westwood - Century City - West Los Angeles - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 7th St	49								
Foothill Tran	nsit										
490	Grand Avenue Park & Ride - Covina Transit Center - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 6th St	50								
493	Diamond Bar - Rowland Heights - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 6th St	50	Ridership Data Information not Currently Available							
495	Industry Park & Ride - Rowland Heights - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 6th St	50								
498	Azusa - West Covina - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 6th St	50								
499	San Dimas Park & Ride - Via Verde Park & Ride - Los Angeles	NB: Figuera St at 7th St SB: Flower St at 6th St	50								
699	Montclair - Fairplex Park & Ride - Cal State LA - USC Medical Center - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 6th St	50								
SS	Silver Streak - Montclair - Downtown Los Angeles	NB: Olive St at Olympic Bl SB: Grand Ave at 9th St	50								

### TABLE 2B (CONTINUED) TRANSIT SYSTEM CAPACITY IN PROJECT AREA - AFTERNOON PEAK HOUR

			Capacity		Peak Hour	Ridership [b	)]	Average I	Remaining	Remaining	Peak Hour
Provider, Rou	ute, and Service Area	Stop Location	per Trip	Peak	Load	Averag	ge Load		per Trip		acity
			[a]	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
OCTA											
701	Huntington Beach - Los Angeles	NB: Figuera St at 7th St SB: Flower St at 7th St	50			Bidorohin Do	oto Informati	on not Curro	ntly Availah	lo	
721	Fullerton - Los Angeles	NB: Figuera St at 7th St SB: Flower St at Olympic Bl	50	Ridership Data Information not Currently Available							
Santa Monica	a Big Blue Bus										
R10	Santa Monica - Downtown Los Angeles	NB: Figuera St at 7th St SB: Wilshire Bl at Hope St	50			Ridership Da	nta Informati	on not Curre	ntly Availab	le	
Antelope Val	ley Transit Authority										
785	Palmdale/Lancaster - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 6th St	50	50 Ridership Data Information not Currently Available							
Torrance Tra	nsit			<u>'</u>							
4X	Torrance - Downtown Los Angeles	NB: Figuera St at 7th St SB: Flower St at 7th St	50			Ridership Da	ata Informati	on not Curre	ntly Availab	le	
Montebello B	dus Lines										
M40	Montebello - Whittier - Downtown Los Angeles	EB: Flower St at 6th St WB: Flower St at 5th St	50								
M50	La Mirada - Downtown Los Angeles	EB: Flower St at 6th St WB: Flower St at 5th St	50			Ridership Da	ata Informati	on not Curre	ntly Availab	le	
M90	Montebello - Whittier - Downtown Los Angeles	EB: Flower St at 6th St WB: Flower St at 5th St	50								
					Total Re	emaining Pe	ak Hour Bu	s Ridership	Capacity	10,	,780
Metro Rail Se	ervice										
B/D	Downtown Los Angeles - North Hollywood Downtown Los Angeles - Koreatown	7th St/Metro	1250	643	648	509	512	741	738	5,928	5,904
Α	Downtown Los Angeles - Long Beach	7th St/Metro	375	N/A 196 N/A 160 N/A 215 N/A						2,580	
E	Downtown Los Angeles - Santa Monica	7th St/Metro	375	N/A	117	N/A	91	N/A	284	N/A	3,692
					Total R	emaining Pe	eak Hour Ra	il Ridership	Capacity	city 18,104	
					Total Rema	aining Peak	Hour Trans	it Ridership	Capacity	28,	,884

#### Notes:

Metro: Los Angeles County Metropolitan Transportation Authority

LADOT DASH: Los Angeles Department of Transportation Downtown Area Short Hop.

[a] Capacity assumptions:

Metro Bus - 40 seated / 50 seated and standing

Metro Articulated Bus - 66 seated / 75 seated and standing

LADOT DASH - 25 seated / 30 seated and standing

LADOT Commuter Express Bus - 49 seated

Foothill Transit - 50 seated and standing

OCTA - 50 seated and standing

Santa Monica Big Blue Bus - 50 seated and standing

Torrance Transit - 50 seated and standing

Montebello Bus Lines - 50 seated and standing

Metro B Line - 55 seats / car, 6 cars / run during peak periods. Metro assumes a maximum capacity of 230% of seated capacity, or approximately 125 / car

Metro D Line - 55 seats / car, 4 cars / run during peak periods. Metro assumes a maximum capacity of 230% of seated capacity, or approximately 125 / car

Metro A or E Line - 55 seats / car, 3 cars / run during peak periods. Metro assumes a maximum capacity of 230% of seated capacity, or approximately 125 / car

[b] Ridership information based on data from Metro and LADOT for 2019.

TABLE 3 RELATED PROJECTS LIST

				Trip Generation [a]  Poilty Morning Peak Hour Aftern						
No.	Project	Address	Use	Daily	Mo In	rning Peak H Out	our Total	Afte In	rnoon Peak Out	Hour Total
1.	Mitsui Fudosan (Eighth and Figueroa Tower)	744 S Figueroa St	436 apartment units, 3,750 sf restaurant, and 3,750 sf retail 2,60		37	146	183	158	86	244
2.	945 W 8th Street	945 W 8th St	781 apartment units and 6,700 sf commercial	2,869	63	146	209	144	91	235
3.	8th/Grand/Hope Project	754 S Hope St	409 condominium units and 7,329 sf retail	2,315	35	137	172	137	78	215
4.	Embassy Tower	848 S Grand Ave	420 condominium units and 38,500 sf retail	3,882	66	144	210	212	165	377
5.	Mixed-Use	840 S Olive St	303 condominium units and 9,680 sf restaurant	3,071	81	166	247	174	96	270
6.	845 Olive & 842 Grand Mixed-Use	845 S Olive St	208 apartment units and 2,430 sf retail	1,305	25	76	101	77	42	119
7.	1018 W Ingraham St	1018 W Ingraham St	43 apartment units and 7,400 sf retail	602	8	21	29	31	23	54
8.	949 S Hope Street Mixed-Use Development	949 S Hope St	236 apartment units and 5,954 sf retail	791	8	45	53	43	7	50
9.	Metropolis Mixed-Use	899 S Francisco St	836 condominium units, 480 hotel rooms, 988,225 sf office, and 46,000 sf retail	8,010	307	318	625	387	512	899
10.	Hotel & Apartments	675 S Bixel St	422 apartment units, 126 hotel rooms, and 4,874 sf retail	3,461	74	173	247	184	116	300
11.	Alexan South Broadway	850 S Hill St	305 apartment units, 3,500 sf retail, and 3,500 sf restaurant	1,998	29	108	137	117	67	184
12.	Olympic Tower	813 W Olympic Blvd	374 condominium units, 373 hotel rooms, 33,498 sf office, 65,074 sf retail, and 10,801 sf conference center	4,423	166	170	336	189	185	374
13.	Downtown LA Hotel	926 James M Wood Blvd	247 hotel rooms	1,592	59	42	101	59	56	115
14.	Hill Street Mixed-Use	920 S Hill St	239 apartment units and 5,400 sf retail	1,476	23	84	107	87	50	137
15.	5th & Hill	323 W 5th St	190 room hotel, 6,100 sf meeting room, 31 apartment units, and 29,200 sf restaurant	2,809	73	49	122	126	100	226
16.	Mixed-Use	1150 W Wilshire Blvd	140 condominium units and 9,115 sf of commercial space	962	(17)	47	30	61	9	70
17.	Spring St Hotel	633 S Spring St	176 hotel rooms, 5,290 sf bar, and 8,430 sf restaurant	2,045	83	33	116	97	99	196
18.	Mixed-Use	1145 W 7th St	241 condominium units and 7,291 sf retail	1,084	4	66	70	67	35	102
19.	Sapphire Mixed-Use (Revised)	1111 W 6th St	362 apartment units and 25,805 sf retail	587	(71)	117	46	104	(51)	53
20.	940 S Hill Mixed-Use	940 S Hill St	232 apartment units and 14,000 sf retail	1,881	20	80	100	115	53	168
21.	Restaurant	1036 S Grand Ave	7,149 sf restaurant	492	2	3	5	27	14	41
22.	Broadway Mixed-Use	955 S Broadway	163 apartment units and 6,406 sf retail	1,275	21	72	93	74	43	117

Notes:

[a] Related project information provided by the Los Angeles Department of Transportation in December 2021, Department of City Planning, and recent traffic studies prepared in the area. This list includes known development projects within one-half mile (2,460 foot) radius of the

### TABLE 3 CONT. RELATED PROJECTS LIST

	Profess	Address	Use Da			Tri	p Generation	ration [a] Afternoon Peak I		
No.	Project	Address	Dai		In Mo	rning Peak H Out	Total	In Afte	Out	Hour Total
23.	Apartments	1218 W Ingraham St	80 apartment units	532	8	33	41	33	17	50
24.	Fig Central	1101 S Flower St	504 condominium units, 183 hotel rooms, and 166,000 sf retail	11,512	190	282	472	527	461	988
25.	Olympia Mixed-Use	1001 Olympic Blvd	879 apartment units, 1,000 hotel rooms, 20,000 sf retail, and 20,000 sf restaurant	10,418	320	388	708	455	309	764
26.	Angels Landing Mixed-Use	332 S Olive St	432 residential units, 515 hotel rooms, 72,090 sf commercial	5,410	184	214	398	347	238	585
27.	Mixed-Use	601 S Main St	452 apartment units and 25,000 sf retail	2,686	36	144	179	152	87	238
28.	1045 S Olive Street	1045 S Olive St	800 condominium units and 15,000 sf retail	5,289	69	297	366	306	166	472
29.	Olympic & Hill Mixed Use	1030 S Hill St	700 apartment units, 7,000 sf retail, 7,000 sf restaurant	3,392	49	193	242	181	104	285
30.	Equity Residential Mixed-Use	340 S Hill St	406 apartment units, 22 affordable units, 2,980 sf office, and 2,630 sf retail	2,253	36	129	165	133	75	208
31.	Mixed-Use (Lifan Tower)	1235 W 7th St	303 apartment units and 5,960 sf retail	1,725	23	95	118	100	54	154
32.	Mixed-Use	400 S Broadway	450 apartment units, 6,904 sf retail, and 5,000 sf bar	3,292	50	187	237	193	112	305
33.	Residential	1322 W Maryland St	62 apartment units	259	5	13	18	13	8	21
34.	Amacon Project	1133 S Hope St	208 condominium units and 5,029 sf retail	1,543	20	74	94	91	50	141
35.	Condominiums	742 S Hartford Ave	42 condominium units	333	5	21	26	20	11	31
36.	Apartments	740 S Hartford Ave	80 apartment units	479	7	30	37	29	15	45
37.	Mixed-Use	755 S Los Angeles St	60,243 sf office, 16,694 sf retail, and 26,959 sf restaurant	2,482	110	57	167	105	100	205
38.	11th & Hill Project	1115 S Hill St	172 condominium units and 6,850 sf restaurant	543	(45)	40	(5)	50	(7)	43
39.	Hotel/Restaurant	1099 S Grand Ave	160 hotel rooms and ground floor restaurant	1,137	37	26	63	42	40	82
40.	Hotel/Retail	1130 S Hope St	144 hotel rooms and 378 sf retail	1,029	34	24	58	37	36	73
41.	Ethos Societe	806 S Garland Ave	120 apartment units, 33,703 sf office, 10,049 sf day care center, and 6,906 sf retail	12,105	73	61	134	67	87	154
42.	Variety Arts (Mixed-Use)	940 S Figueroa St	10,056 sf restaurant, 5,119 sf bar, and 3,295 sf office	2,237	5	4	9	99	35	134
43.	Residential	350 S Figueroa St	570 apartment units	965	4	101	105	72	23	95
44.	Mack Urban (Site 2 & 3)	1105 S Olive St	Site 2: 537 apartment units, 3,800 sf restaurant, and 3,800 sf retail Site 3: 713 apartment units, 7,100 sf restaurant, and 7,100 sf retail	5,241	122	278	400	258	160	418

Notes:

[a] Related project information provided by the Los Angeles Department of Transportation in December 2021, Department of City Planning, and recent traffic studies prepared in the area. This list includes known development projects within one-half mile (2,460 foot) radius of the Project Site.

# Chapter 3 Project Traffic

Trip generation estimates, trip distribution patterns, and trip assignments were prepared for the Project.

#### PROJECT TRIP GENERATION

The number of trips generated by the residential component of the Project was calculated using the LADOT empirical rates for multi-family, high-rise, residential land uses in dense, multi-use, urban areas (from TAG Table 3.3-1). The residential trip rates are based on local data collected in dense urban areas with convenient and frequent transit service and, thus, transit usage is inherent in the rates and no trip reductions related to transit were applied.

The trips generated by the existing commercial uses to be removed as part of the Project were estimated using rates published in *Trip Generation Manual*, 11<sup>th</sup> Edition (ITE, 2021), which are based on surveys of similar land uses at sites around the country and are generated for daily rates and morning and afternoon peak hour rates. The rates calculate the number of vehicle trips traveling to and from the Project Site based on the density of each land use component. Because the Project is situated adjacent to the 7<sup>th</sup> Street/Metro Center Station with direct access through a pedestrian portal from the Project Site's plaza, a 25% transit adjustment was applied to the existing uses to be removed to account for transit usage and walking visitor arrivals.

As shown in Table 4, the Project is anticipated to generate 92 net new morning peak hour trips (17 inbound trips, 75 outbound trips) and 117 net new afternoon peak hour trips (74 inbound trips, 43 outbound trips).

#### PROJECT TRIP DISTRIBUTION

The geographic distribution of trips generated by the Project is primarily dependent on the location of employment, residential, and commercial uses from which residents and visitors of the Project would be drawn, characteristics of the street system serving the Project Site, existing intersection traffic volumes, the location of the proposed driveways, as well as input from LADOT staff.

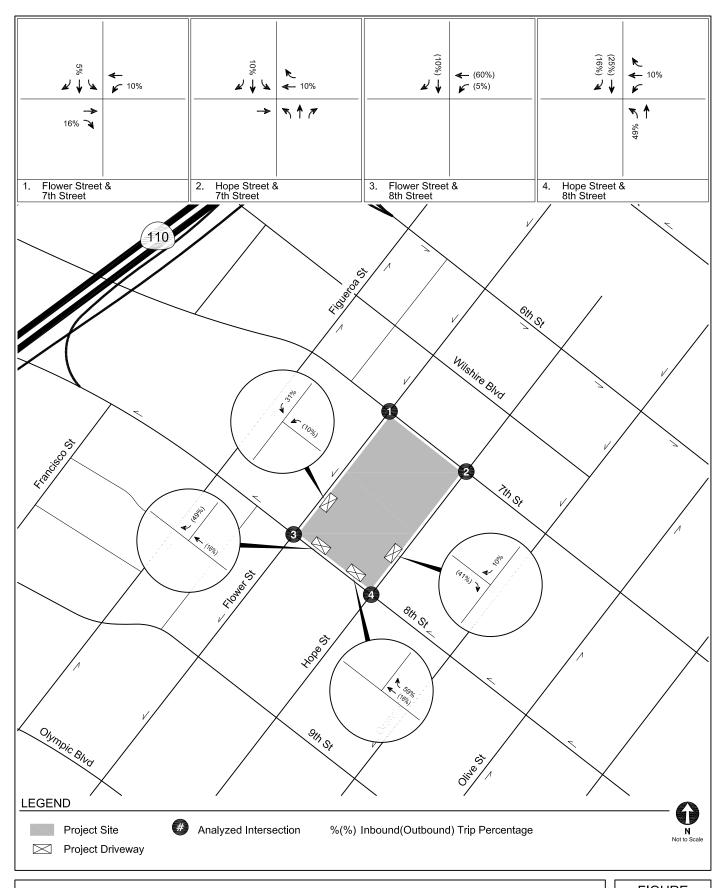
The intersection-level trip distribution for the Project is shown in Figure 15. Generally, the regional pattern for the Project is as follows:

- 30% to/from the north
- 20% to/from the east
- 30% to/from the south
- 20% to/from the west

#### PROJECT TRIP ASSIGNMENT

The Project trip generation estimates summarized in Table 4 and the trip distribution pattern shown in Figure 15 were used to assign the Project-generated traffic through the study intersections. Figure 16 illustrates the Project-only traffic volumes at the study intersections during typical weekday morning and afternoon peak hours.

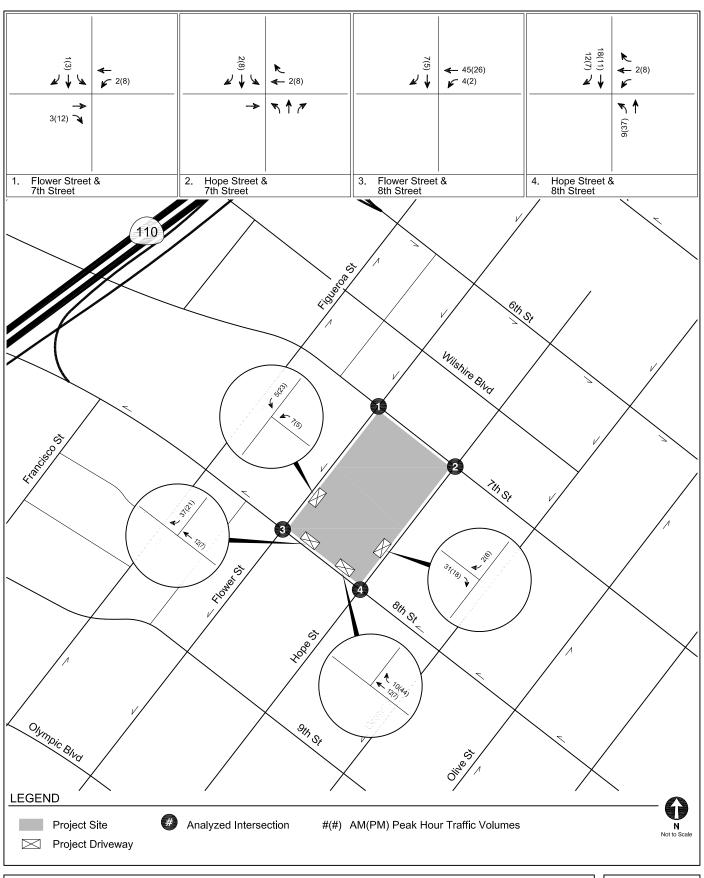




PROJECT TRIP DISTRIBUTION

FIGURE 15





PROJECT-ONLY PEAK HOUR TRAFFIC VOLUMES FIGURE 16

TABLE 4
PROJECT VEHICLE TRIP GENERATION ESTIMATES

Land Use	Land Rate		Morn	ing Peak	Hour	Afternoon Peak Hour			
Land USE	Use	Nate	In	Out	Total	ln	Out	Total	
<u>Trip Generation Rates</u> [a]  Multifamily Housing (High-Rise)	[b]	per du	24%	76%	0.23	61%	39%	0.30	
Shopping Center (>150k) [c]	820	per ksf	62%	38%	0.84	48%	52%	1.26	
Proposed Project									
Multifamily Housing (High-Rise)	[b]	466 du	26	81	107	85	55	140	
Existing Uses to be Removed [d]									
Shopping Center (>150k) [c]  Transit/Walk Adjustment - 25% [e]	820	24.342 ksf	12 (3)	8 <i>(</i> 2 <i>)</i>	20 <i>(</i> 5 <i>)</i>	15 <i>(4)</i>	16 <i>(4)</i>	31 <i>(8)</i>	
TOTAL NEW PROJECT TRIPS			17	75	92	74	43	117	

#### Notes:

du: dwelling unit ksf: 1,000 square feet

- [a] Source: *Transportation Assessment Guidelines (TAG)*, Los Angeles Department of Transportation (LADOT), July 2020 and *Trip Generation Manual*, 11th Edition, Institute of Transportation Engineers, 2021.
- [b] Per LADOT's *TAG*, mid-rise and high-rise multifamily uses in dense multi-use urban areas are eligible to use a City specific trip generation rate based on vehicle trip count data collected at market-rate residential properties in the City of Los Angeles. Empirical trip rates account for transit usage/walk-in trips. Therefore, no additional trip reductions were applied.
- [c] The 24,342 sf of retail and theater uses to be replaced by residential uses to accommodate the development of the Project are part of the existing shopping center component of The Bloc. Therefore, the trip generation rates for Shopping Center (>150k) were utilized.
- [d] The existing uses at the Project Site would be maintained (including hotel, office, etc.) except for the 23,888 sf retail and 454 sf theater uses that would be replaced by residential uses to accommodate the Project.
- [e] The Project Site is located adjacent to the 7th Street/Metro Center Station which serves Metro Rail B, D, A, E, and J Lines and will provide service to the future Metro Regional Connector, and a portal to this station is located on the Project Site; therefore, a 25% transit adjustment was applied to account for transit usage and walking visitor arrivals.

### Chapter 4

### **CEQA Analysis of Transportation Impacts**

This chapter provides the required analyses and assessment of potential CEQA-related transportation impacts attributable to the Project. Consistent with the CEQA guidelines, the analysis contained in this chapter identifies any potential conflicts the Project may have with adopted City plans and policies and the improvements associated with the potential conflicts, as well as the results of a Project VMT analysis that addresses State requirements under SB 743 and an identification of any hazards created due to geometric design features.

#### **METHODOLOGY**

As previously detailed, SB 743, effective in January 2014, required the OPR to change the CEQA guidelines regarding the analysis of transportation impacts. Under SB 743, the focus of transportation analysis for CEQA purposes shifted from LOS to VMT, in order to reduce GHG, create multimodal networks, and promote mixed-use developments. The CEQA guidelines were also updated to provide further clarification on assessments of potential conflicts or inconsistencies with local plans or policies.

As such, LADOT updated its guidelines and adopted the TAG "to effectuate a review process that advances the City's vision of developing a safe, accessible, well-maintained, and well-connected multi modal transportation network". The TAG specifically defines methodology of analyzing a project's transportation impacts in accordance with the updated CEQA guidelines and SB 743, and contains the following thresholds for identifying significant impacts:

- Threshold T-1: Conflicting with Plans, Programs, Ordinances, or Policies
- Threshold T-2.1: Causing Substantial Vehicle Miles Traveled (VMT)
- Threshold T-2.2: Substantially Inducing Additional Automobile Travel

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

The thresholds were reviewed and analyzed, as detailed in the following Sections 4A-4D. In addition, a safety screening analysis of California Department of Transportation (Caltrans) freeway off-ramp facilities for the Project is provided in Section 4E.

Section 4A: Threshold T-1

Plans, Programs, Ordinances, or Policies Analysis

Threshold T-1 considers whether a project would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities.

The purpose of Threshold T-1 is to assess whether a project would conflict with an adopted program, policy, plan, or ordinance that protects the environment. In general, transportation policies or standards adopted to protect the environment are those that support multimodal transportation options and a reduction in VMT. Conversely, a project would not result in an impact merely based on whether or not it would implement a particular program, plan, policy, or ordinance. Many of these programs must be implemented by the City over time, and over a broad area, and it is the intention of Threshold T-1 is to ensure that proposed development projects and plans do not preclude the City from implementing adopted programs, plans and policies. As stated in Section 2.1.4 of the TAG, a project that generally conforms with, and does not obstruct, the City's development policies and standards will generally be considered consistent.

#### PLANS, PROGRAMS, ORDINANCES, AND POLICIES

Table 2.1-1 of the TAG identifies the City plans, policies, programs, ordinances, and standards relevant in determining project consistency. Attachment D of the TAG, *Plans, Policies, and Programs Consistency Worksheet,* provides a structured approach to evaluate whether a project conflicts with the City's plans, programs, ordinances, or policies and to streamline the review by highlighting the most relevant plans, policies, and programs when assessing potential impacts to the City's transportation system. The Plans, Policies, and Programs Consistency Worksheet was completed for the Project and is provided in Appendix C.

As summarized below and in Appendix C, the Project is consistent with the City documents listed in Table 2.1-1 and the Plans, Policies, and Programs Consistency Worksheet of the TAG;

therefore, the Project would not result in a significant impact under Threshold T-1. Detailed discussion on the Project's consistency with the applicable plans, programs, ordinances, or policies is provided below.

#### **Mobility Plan**

The Mobility Plan combines "complete street" principles with the following primary goals that define the City's mobility priorities:

- <u>Safety First</u>: Design and operate streets in a way that enables safe access for all users, regardless of age, ability, or transportation mode of choice.
- <u>World Class Infrastructure</u>: A well-maintained and connected network of streets, paths, bikeways, trails, and more provides Angelenos with the optimum variety of mode choices.
- Access for All Angelenos: A fair and equitable system must be accessible to all and must pay particularly close attention to the most vulnerable users.
- <u>Collaboration, Communication, and Informed Choices</u>: The impact of new technologies on our day-to-day mobility demands will continue to become increasingly important to the future. The amount of information made available by new technologies must be managed responsibly in the future.
- <u>Clean Environments and Healthy Communities</u>: Active transportation modes such as bicycling and walking can significantly improve personal fitness and create new opportunities for social interaction, while lessening impacts on the environment.

A detailed analysis of the Project's consistency with the Mobility Plan is provided in Table 5. As detailed in Chapter 2, the Mobility Plan identifies corridors within the Study Area as components of various "mobility-enhanced networks." Though no specific improvements have been identified and there is no schedule for implementation, the mobility-enhanced networks represent a focus on improving a particular aspect of urban mobility, including transit, neighborhood connectivity, bicycles, pedestrians, and vehicles. The Project would not preclude the City from implementing any Mobility Plan improvements.

Pedestrian and bicycle access to the Development Area would be provided via the residential lobby entrance along Hope Street. The Project design would maintain the existing sidewalks, pedestrian amenities such as public and private open spaces, and vehicular access driveways. In addition, with development of the Project, enhanced pedestrian access would be provided with

a new pedestrian entrance to the residential lobby along Hope Street and added streetscape enhancements along Hope Street, including landscaped tree wells and enhanced sidewalk paving for pedestrian-friendly access to the Development Area and the Project Site. These streetscape pedestrian enhancements along a portion of Hope Street would activate the pedestrian experience prior to entering a relocated and an existing pedestrian walkway that access the Project Site. The Project does not propose modifying, removing, or otherwise affecting existing bicycle infrastructure. As further detailed in Appendix C, the Project is requesting waivers of dedication and improvement along the 8th Street, Hope Street, and 7th Street Project frontages as well as the southeast corner of Flower Street & 7th Street and southwest corner of Hope Street & 7th Street, pursuant to Los Angeles Municipal Code (LAMC) Section 17.03 and 17.15. The Project would not result in the degradation of any existing bicycle facilities; rather, the Project enhances and encourages bicycle use through active design measures.

Existing sidewalks surrounding the Development Area are generally in good condition, with no significant obstructions, uneven sections, or unusual gradients, and provide passable, direct connectivity to surrounding development as well as linkages to Metro fixed-rail portals and bus stops. Sidewalks currently exist on all sides fronting the Project Site, including 12-foot-wide sidewalks on Flower Street, 10-foot-wide sidewalks on 7<sup>th</sup> Street, 10-foot-wide sidewalks on 8<sup>th</sup> Street, and 10-foot-wide sidewalks on Hope Street. Existing standard and continental crosswalks are installed at the signalized intersections of Hope Street & 7<sup>th</sup> Street, Flower Street & 7<sup>th</sup> Street, Flower Street & 8<sup>th</sup> Street, and Hope Street & 8<sup>th</sup> Street. Figure 7 shows a map of pedestrian destinations, including commercial and cultural facilities within walking distance of the Project Site that could attract pedestrian activity.

The required sidewalk easements along 8<sup>th</sup> Street and Hope Street cannot be fully provided due to the existing improvements and infrastructure, which will remain on the Project Site. In addition, the Project only proposes development on the southern half of the Project Site, would not modify the existing building lines, and the existing conditions along the Project frontages would remain largely unchanged. Thus, the Project itself would not preclude the City from implementing potential future mobility improvements in accordance with the Mobility Plan and the adjacent streets would continue to serve the mobility needs of the City, including ease of pedestrian and

<sup>&</sup>lt;sup>6</sup> Continental crosswalks are high visibility crosswalks with contrasting longitudinal striping ("zebra" or "ladder" pattern) to provide enhanced visual cues for drivers to expect pedestrians.

bicycle access to surrounding development and transit systems. Thus, the Project Site would continue to provide safe access for all users regardless of mode choice and would not conflict with the Safety First objective of the Mobility Plan.

The Project design would integrate with the existing pedestrian and bicycle connections within the Project Site and the surrounding street frontages. In addition, the Project would provide a separate residential lobby entry along Hope Street that would connect to the relocated pedestrian pathway that provides access to areas within and around the Project Site. The Project would use the existing functional vehicle driveways and would not result in new vehicle driveways to access the Project Site.

The Project Site is not located along street segments identified in the TEN and, thus, the Project would not interfere with future improvements to existing or future transit services in the area. Truck loading areas are separated from pedestrian and bicycle interaction and would be accommodated completely on-site within the existing parking infrastructure. Access to the existing loading areas would continue to be provided via 8<sup>th</sup> Street. The Project would not affect any of the existing driveway and roadway widths and would not preclude potential future roadway improvements proposed in the Mobility Plan. Therefore, the Project would not conflict with the infrastructure goals.

The Project is also committed to encouraging multi-modal transportation alternatives and access for all travel modes to and from the Project Site. The Project would provide short- and long-term bicycle parking for the proposed residential uses to encourage non-motorized travel. Furthermore, to disincentivize single occupancy vehicle travel as a mode choice and promote alternative transportation modes, including without limitation those offered by the major transit stop proximate to the Project Site and the Project's parking supply would be provided in accordance with reduced parking rates. The Project promotes transit usage by developing a residential project located adjacent to the existing 7th Street/Metro Center Station, with direct access through a pedestrian portal from the Project Site's plaza, and adjacent to several Metro bus stops along Flower Street and Hope Street. The Project supports residents, employees, and visitors who choose to travel by automobile through the provision of existing driveways along Flower Street and Hope Street, on-site passenger loading, separate commercial loading on 8th Street, and adequate parking supply to serve demand. Other than the proposed streetscape improvements along the portion of Hope Street adjacent to the new residential lobby, no adjacent sidewalks, curb ramps, and

passages along the Project frontage would be modified and all pedestrian facilities would continue to meet ADA standards, providing accessibility for all. In addition, the Project facilitates a walkable environment by placing additional residential units in proximity to jobs, destinations, and the multitude of neighborhood services available in downtown.

As detailed in Section 4B, the Project would implement and promote TDM strategies to reduce the dependency on single-occupancy vehicles by providing safe and convenient bicycle parking. Off-street parking would also be provided, consistent with the land use objectives and estimated parking demand. The Project would also maintain the limited existing on-street parking around the Project frontages. Thus, the Project would not conflict with the Collaboration, Communication, and Informed Choices goal of the Mobility Plan.

To respond to the Mobility Plan objective of providing clean environments and healthy communities, the Project promotes interaction between its residential units and existing commercial uses on-site, as well as with other nearby downtown commercial uses and attractions, and also facilitates use of public transit by locating residential uses adjacent to the existing Metro 7th Street/Metro Center Station portal on the Project Site, thereby reducing the overall distances traveled by vehicle. Additionally, the design encourages active transportation for a healthier lifestyle by supporting bicycling and walking, which contribute to individual health as well as a reduction of vehicle pollutants.

The Project is consistent with the transportation goals and policies identified in the Mobility Plan. Thus, the Project would not conflict with the goals and would not preclude the implementation of future improvements of the Mobility Plan.

#### Plan for a Healthy Los Angeles

Plan for a Healthy Los Angeles: A Health and Wellness Element of the General Plan (LADCP, March 2015) (Plan for a Healthy Los Angeles) introduces guidelines for the City to follow to enhance its position as a regional leader in health and equity, encourage healthy design and equitable access, and increase awareness of equity and environmental issues.

A detailed analysis of the Project's consistency with the policies in the Plan for a Healthy Los Angeles is provided in Table 6. In summary, the Project would promote healthy living by facilitating and encouraging active travel modes. The Project would support multi-modal mobility options to improve the convenience of making trips without the use of a personal automobile. The Project includes pedestrian enhancements such as the relocated and enhanced pedestrian entry and passageway along Hope Street connecting off-site pedestrian amenities and facilities. The Project would also provide bicycle parking to encourage bicycling and walking for residents, employees, and visitors to the Project. The Project would expand residential opportunities in proximity to commercial areas, destinations, and other neighborhood services in a diverse urban area. The Project would not displace any existing housing; instead, it adds to the City's housing opportunities. Finally, the Project is estimated to generate lower VMT per capita than the average for the area, as demonstrated in Section 4B. VMT directly contributes to GHG emissions, so a reduced VMT per capita also reduces GHG per capita.

The Project prioritizes safety for all individuals utilizing the Project Site and does not hinder other goals and policies identified in the Plan for a Healthy Los Angeles. Therefore, the Project is consistent with and would not obstruct the implementation of the policies recommended by the Plan for a Healthy Los Angeles.

#### Land Use Element of the General Plan

The City General Plan's Land Use Element contains 35 Community Plans that establish specific goals and strategies for the various neighborhoods across Los Angeles. The Project Site is located within the Financial Core portion of *Central City Community Plan*. Additionally, the City is in the process of updating the Central City and the Central City North Community Plans as part of the *Draft Downtown Los Angeles Community Plan* (LADCP, 2023). The Project's consistency with both *Central City Community Plan* and *Draft Downtown Los Angeles Community Plan* are described below.

<u>Central City Community Plan</u>. A detailed analysis of the Project's consistency with *Central City Community Plan* is provided in Table 7. The Project would expand housing opportunities near accessible transit and locate new residential land uses adjacent to existing on-site hotel, commercial and retail establishments, as well as other adjacent commercial and retail uses, which

helps create an active downtown destination. The Project also integrates with existing open spaces on the Project Site and enlivens those spaces while concurrently supporting high levels of transit use with nearby transit centers and facilitating accessible employment opportunities in the adjacent commercial buildings. The Project provides bicycle parking and amenities on-site within the Development Area and enhances existing pedestrian activity by relocating and enhancing a separate pedestrian entry along Hope Street that would connect to off-site pedestrian facilities (i.e., crosswalks and sidewalks adjacent to the Project Site, but not directly fronting the Project, that provide connectivity to other pedestrian destinations), as well as existing pedestrian pathways within the Project Site. As further discussed in Section 4B, the Project would implement TDM measures that would encourage residents and visitors of the Project to utilize alternative modes of travel.

<u>Draft Downtown Los Angeles Community Plan</u>. *Draft Downtown Los Angeles Community Plan* (Los Angeles Department of City Planning, 2023) is currently a draft document. The Los Angeles City Council (City Council), at its meeting on May 3, 2023, voted unanimously to approve *Draft Downtown Los Angeles Community Plan* and the New Zoning Code with several amendments. The City Council also recommended a number of follow-up items that were requested in the motions of various Council Offices.

Following City Council approval of *Draft Downtown Los Angeles Community Plan* and New Zoning Code, the implementing ordinances will be reviewed and finalized by the City Attorney, to ensure clarity of regulations and consistency with State law, which can take approximately six months to a year. After this Form and Legality process is complete, the final *Downtown Los Angeles Community Plan* and New Zoning Code will be brought into effect by the City Council. Since the implementing ordinances for *Draft Downtown Los Angeles Community Plan* and the New Zoning Code have not been finalized and have not become effective, the information provided herein is for informational purposes only. A detailed analysis of the Project's consistency with *Draft Downtown Los Angeles Community Plan* is provided in Table 8. The purpose of *Draft Downtown Los Angeles Community Plan* is to create and implement a vision of the future for downtown. According to regional projections, by Year 2040, downtown will be adding approximately 125,000 people, 70,000 housing units, and 55,000 jobs. Per *Draft Downtown Los Angeles Community Plan*, the following "core principles" represent the long-term priorities of the plan:

- Accommodate anticipated growth through Year 2040 in an inclusive, equitable, sustainable, and healthy manner, while supporting and sustaining Downtown's ongoing revitalization
- Reinforce Downtown's jobs orientation
- Grow and support the residential base
- Strengthen neighborhood character
- Promote a transit-, bicycle-, and pedestrian-friendly environment
- Create linkages between districts
- Create world-class streets and public realm

The Project would provide high-density residential uses to accommodate future residential growth in downtown, in an inclusive, equitable, sustainable, and healthy manner as it would incorporate residential uses within the existing Project Site without displacing existing residents and enhance the surrounding existing uses. The Project proposes high-density residential uses and supports infill developments located in proximity to transit. The Project would support the residential base by placing high-density residential uses near existing on-site and adjacent commercial uses. The Project would promote a transit-, bicycle-, and pedestrian-friendly environment with pedestrian enhancements, such as a new pedestrian entry along Hope Street to the residential lobby and would relocate and enhance a pedestrian pathway along Hope Street to improve pedestrian connectivity both within the Project Site and to adjacent and nearby uses. By locating the new residential uses in a tower extending above the existing podium building, the Project allows for the retention of the Project Site's large public open space areas and pedestrian pathways, which improve walkability and connectivity for pedestrian access between transit stops and nearby commercial and retail destinations. The Project would also provide bicycle parking to encourage bicycling for residents and visitors to the Project. Pedestrian access would be separate from vehicular access, further prioritizing pedestrian safety and comfort. The Project would also be located adjacent to existing transit service, including the 7th Street/Metro Center Station, which would create linkages between districts. Aside from the streetscape improvements along a portion of Hope Street adjacent to the new residential lobby, the Project would not include modifications to the public ROW along the Development Area frontages and would not preclude the City from implementing potential future improvements consistent with the Mobility Plan. Further, the Project would implement TDM strategies to encourage reduction of single-occupancy vehicle trips and support ways to reduce to VMT per capita.

The Project, through its characteristics highlighted above, both supports policies and does not hinder other goals and policies identified in *Draft Downtown Los Angeles Community Plan*. Therefore, the Project is consistent with and would not obstruct the implementation of the policies recommended by the current *Draft Downtown Los Angeles Community Plan*, should they be adopted.

#### LAMC Section 12.21.A.16 (Bicycle Parking)

LAMC Section 12.21.A.16 details the bicycle parking requirements for new developments. The Project would meet the LAMC requirements for on-site short-term and long-term bicycle parking supply and, thus, the Project is consistent with LAMC Section 12.21.A.16.

#### LAMC Section 12.26J (TDM Ordinance)

LAMC Section 12.26J, the TDM Ordinance (1993), establishes TDM requirements for non-residential projects, in addition to non-residential components of the mixed-use projects, in excess of 25,000 sf. The Project relocates some existing retail uses but does not propose new non-residential uses; thus, the requirements of the TDM Ordinance do not apply to the Project.

#### <u>Vision Zero Action Plan / Vision Zero Corridor Plans</u>

Vision Zero implements infrastructure designed to increase public safety on the most vulnerable City streets. As discussed in Chapter 2, the Project Site is located adjacent to 7<sup>th</sup> Street and 8<sup>th</sup> Street, which are identified in the City's HIN; however, no Vision Zero Safety Improvements are planned in the vicinity. The Project improvements to the pedestrian environment would not preclude future Vision Zero Safety Improvements by the City. Thus, the Project does not conflict with Vision Zero.

#### Streetscape Plans

There are no streetscape plans adjacent to the Project Site and, therefore, streetscape plans do not apply to the Project.

#### **Citywide Design Guidelines**

The Pedestrian-First Design approach of *Citywide Design Guidelines* (Los Angeles City Planning Urban Design Studio, October 2019) identifies design strategies that "create human scale spaces in response to how people actually engage with their surroundings, by prioritizing active street frontages, clear paths of pedestrian travel, legible wayfinding, and enhanced connectivity. Pedestrian-First Design promotes healthy living, increases economic activity at the street level, enables social interaction, creates equitable and accessible public spaces, and improves public safety by putting eyes and feet on the street."

The Pedestrian-First Design guidelines are as follows:

- Guideline 1: Promote a safe, comfortable, and accessible pedestrian experience for all.
- <u>Guideline 2</u>: Carefully incorporate vehicular access such that it does not degrade the pedestrian experience.
- <u>Guideline 3</u>: Design projects to actively engage with streets and public space and maintain human scale.

As detailed in Table 9, the Project design would maintain the existing sidewalks, pedestrian amenities such as public and private open spaces, and vehicular access driveways. The Project would also enhance pedestrian access to the Project Site from Hope Street with a relocated and improved pedestrian entry and pathway. Additionally, the Project would provide new replacement street trees in landscaped tree wells with enhanced sidewalk paving along a portion of Hope Street adjacent to the new residential lobby to provide adequate shade and a more comfortable environment for pedestrians. The Project Site's proximity to multiple transit services promotes the use of transit and other alternative modes of transportation. Further, the orientation of the Project provides direct connection to the public ROW. All vehicular access to the Project Site would be separate from the pedestrian and bicycle access points. Thus, the Project would align with the

Pedestrian-First Design approach of *Citywide Design Guidelines* to provide a safe, comfortable, and accessible experience for all transportation modes.

#### **CUMULATIVE ANALYSIS**

In addition to potential Project-specific impacts, the TAG requires that the Project be reviewed in combination with nearby Related Projects to determine if there may be a cumulatively significant impact resulting from inconsistency with a particular program, plan, policy, or ordinance. In accordance with the TAG, the cumulative analysis must consider any Related Projects within 0.50 miles of the Project Site and any transportation system improvements in the vicinity of the Project Site. Table 3 identifies the Related Projects located within 0.50 miles of the Project Site, none of which are located along the same block as the Project.

As summarized in this section, the Project would not preclude the City from implementing the City's adopted programs, plans, ordinances, or policies. Therefore, the Project, together with the Related Projects identified in Table 3, would not create inconsistencies nor result in cumulative impacts with respect to the identified programs, plans, policies, and ordinances.

# TABLE 5 PROJECT CONSISTENCY WITH MOBILITY PLAN 2035

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency	
Chapter 1 - Safety First		
Policy 1.1, Roadway User Vulnerability  Design, plan, and operate streets to prioritize the safety of the most vulnerable roadway user.	Consistent. The Project design includes pedestrian enhancements along Hope Street, which include landscaping and enhanced sidewalk paving to mark the entry to the residential tower. Pedestrian and bicycle access to the new residential tower would be provided via the residential lobby entrance along Hope Street. The Project is requesting waivers of dedication and improvement along all Project frontages, pursuant to LAMC Section 17.03 and 17.15 because the existing buildings on the Project Site preclude such dedications and improvements; however, the Project Site would maintain the existing sidewalk width along all Project Site frontages, would continue to provide safe access for all users regardless of mode of choice and would not conflict with the Safety First objective of the Mobility Plan. Further, the Project does not propose modifying, removing, or otherwise affecting existing bicycle infrastructure, and the Project driveways, which are existing, are not located along a street with an existing bicycle facility.	
Chapter 2 - World Class Infrastructure		
Policy 2.2 Complete Streets Design Guide Establish the Complete Streets Design Guide as the City's document to guide the operations and design of streets and other public rights-of-way.	Consistent. The Project would conform to all design element requirements which may affect public rights-of-way, including proper driveway alignment, improved lighting elements, and landscaping design which does not hinder sight distance, mobility, or accessibility.	
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.	Consistent. The Project would enhance pedestrian access within and around the Project Site by enhancing and relocating one of the existing pedestrian access points into the Project Site from the sidewalk on Hope Street and by providing a new pedestrian entrance from the sidewalk on Hope Street into the new residential tower. The Project would maintain all existing sidewalks adjacent to all public rights-of-way.	
Policy 2.4 Neighborhood Enhanced Network Provide a slow speed network of locally serving streets.	Consistent. Hope Street adjacent to the Project Site is part of the Neighborhood Enhanced Network. The Project would encourage more walking by developing residential uses near local serving retail uses, thereby ensuring that the Project would not interfere with the neighborhood character of the surrounding area.	

#### Notes:

<sup>[</sup>a] Objectives, Policies, Programs, or Plans based on information provided in *Mobility Plan 2035: An Element of the General Plan* (Los Angeles Department of City Planning, January 2016).

# TABLE 5 (CONTINUED) PROJECT CONSISTENCY WITH MOBILITY PLAN 2035

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency
Policy 2.5 Transit Network Improve the performance and reliability of existing and future bus service.	Consistent. No streets adjacent to the Project Site are part of the Transit Enhanced Network. No access to the Project Site is provided along street segments identified in the Transit Enhanced Network and thus, would not interfere with future improvements to existing and future transit services. The Project would encourage more transit usage by developing residential uses within an existing major development with a diverse range of commercial and hotel uses, with convenient access to both rail and bus transit services.
Policy 2.6 Bicycle Networks  Provide safe, convenient, and comfortable local and regional bicycling facilities for people of all types and abilities. (includes scooters, skateboards, rollerblades, etc.)	Consistent. There are currently Class II bicycle lanes on 7th Street adjacent to the Project Site with nearby bicycle share opportunities available. The Mobility Plan designated Flower Street as part of the Bicycle Lane Network adjacent to the Project Site; however, there is no schedule for implementation yet and the Project would not interfere with future implementation of the bicycle infrastructure.  The Project provides infrastructure and services to encourage bicycling for residents and visitors to the Project Site. The Project will meet the required on-site bicycle space supply for the new residential use.
Policy 2.10 Loading Areas  Facilitate the provision of adequate on and off-street loading areas.	Consistent. The Project will maintain the existing loading areas which are designed to meet the site's loading demand without disrupting operations within the public right-of-way.
Policy 2.16 Scenic Highways  Ensure that future modifications to any scenic highway do not impact the unique identity or characteristic of that scenic highway.	Consistent. The Project does not propose modifications to any scenic highway and would not impact the characteristics of a scenic highway.

#### Notes:

[a] Objectives, Policies, Programs, or Plans based on information provided in *Mobility Plan 2035: An Element of the General Plan* (Los Angeles Department of City Planning, January 2016).

# TABLE 5 (CONTINUED) PROJECT CONSISTENCY WITH MOBILITY PLAN 2035

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency	
Policy 2.17 Street Widenings Carefully consider the overall implications (costs, character, safety, travel, infrastructure, environment) of widening a street before requiring the widening, even when the existing right of way does not include a curb and gutter or the resulting roadway would be less than the standard dimension.	Consistent. The Project does not propose modifications to widen any streets.	
Chapter 3 - Access for All Angelenos		
Policy 3.1 Access for All Recognize all modes of travel, including pedestrian, bicycle, transit, and vehicular modes – including goods movement – as integral components of the City's transportation system.	Consistent. The Project is committed to encouraging multi-modal transportation alternatives and access for all travel modes to and from the Project Site. The Project maintains the existing driveway for truck delivery along 8th Street and provides infrastructure (short- and long-term bicycle parking, easy bicycle accessibility to the Project Site) to encourage walking and bicycling. The Project encourages transit usage by developing a high-density residential project adjacent to existing on-site commercial uses and the 7th Street/Metro Center Station. The Project is also adjacent to several Metro bus stops along Flower Street and Hope Street. Finally, the Project would support those residents and visitors who choose to travel by automobile through the maintenance of vehicle access points along 8th Street, Flower Street, and Hope Street and adequate parking supply to serve demand.	
Policy 3.2 People with Disabilities  Accommodate the needs of people with disabilities when modifying or installing infrastructure in the public right-of-way.	Consistent. The Project's new pedestrian entrances would be designed in accordance with LADOT standards, comply with Americans with Disabilities Act (ADA) requirements, and provide direct connections to pedestrian amenities at adjacent intersections.	
Policy 3.3 Land Use Access and Mix  Promote equitable land use decisions that result in fewer vehicle trips by providing greater proximity and access to jobs, destinations, and other neighborhood services.	Consistent. The Project's mix of high-density residential uses located in downtown Los Angeles on the same site with a diverse range of existing commercial and hotel uses, and a direct portal to the 7th Street/Metro Center Station, will encourage ridesharing and use of alternative mobility modes. Additionally, the Project design includes TDM measures to reduce the number of single occupancy vehicle trips to the Project Site.	

#### Notes:

[a] Objectives, Policies, Programs, or Plans based on information provided in *Mobility Plan 2035: An Element of the General Plan* (Los Angeles Department of City Planning, January 2016).

# TABLE 5 (CONTINUED) PROJECT CONSISTENCY WITH MOBILITY PLAN 2035

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency
Policy 3.4 Transit Services  Provide all residents, workers, and visitors with affordable, efficient, convenient, and attractive transit services.	Consistent. The Project is located adjacent to the 7th Street/Metro Center Station and adjacent to several Metro bus stops along Flower Street and Hope Street, providing residents and visitors to the Project with multiple public transit services. Access to adjacent transit will be maintained with safe and convenient paths of travel from the Project Site through the existing pedestrian portal from the Project Site's plaza.
Policy 3.5 Multi-Modal Features Support "first-mile, last-mile solutions" such as multi-modal transportation services, organizations, and activities in the areas around transit stations and major bus stops (transit stops) to maximize multi-modal connectivity and access for transit riders.	Consistent. The Project would support "first-mile, last-mile solutions" by developing a high-density residential project located in an active downtown area adjacent to multiple Metro bus stops and the 7th Street/Metro Center Station. Additionally, the Project design includes TDM measures that will encourage the use of transit and other alternative modes of transportation.
Policy 3.6 Regional Transportation & Union Station Continue to promote Union Station as the major regional transportation hub linking Amtrak, Metrolink, Metro Rail, and high-speed rail service.	Consistent. The Project is located adjacent to the 7th Street/Metro Center Station with direct access through a pedestrian portal from the Project Site's plaza, which provides direct connections to Union Station.
Policy 3.7 Regional Transit Connections Improve transit access and service to major regional destinations, job centers, and inter-modal facilities.	Consistent. The Project would improve transit access and service to major regional destinations and employment centers by developing high-density residential uses located in downtown Los Angeles adjacent to the 7th Street/Metro Center Station and adjacent to Metro bus stops along Flower Street and Hope Street.
Policy 3.8 Bicycle Parking Provide bicyclists with convenient, secure, and well-maintained bicycle parking facilities.	Consistent. The Project provides infrastructure and services to encourage bicycling for residents and visitors to the Project Site. The Project will provide the required on-site bicycle space supply for the new residential use.

#### Notes:

[a] Objectives, Policies, Programs, or Plans based on information provided in *Mobility Plan 2035: An Element of the General Plan* (Los Angeles Department of City Planning, January 2016).

# TABLE 5 (CONTINUED) PROJECT CONSISTENCY WITH MOBILITY PLAN 2035

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency	
Chapter 4 - Collaboration, Communication, & Informed Choices		
Policy 4.8 Transportation Demand Management Strategies Encourage greater utilization of Transportation Demand Management (TDM) strategies to reduce dependence on single-occupancy vehicles.	Consistent. The Project design includes TDM measures to reduce the number of single occupancy vehicle trips to the Project Site, including bicycle parking per LAMC, including short-term and long-term bicycle parking facilities, and a reduced vehicle parking supply.	
Policy 4.13 Parking and Land Use Management Balance on-street and off-street parking supply with other transportation and land use objectives.	Consistent. The Project would provide sufficient off-street parking to accommodate Project parking demand. The Project would maintain existing on-street parking around Project frontages.	
Chapter 5 - Clean Environments & Healthy Communiti	es	
Policy 5.1 Sustainable Transportation Encourage the development of a sustainable transportation system that promotes environmental and public health.	Consistent. The Project would provide secured bicycle parking facilities and pedestrian connections within the Project Site and connecting to off-site pedestrian sidewalks and crossings. This would promote active transportation modes such as biking and walking. Additionally, the Project is located adjacent to the 7th Street/Metro Center Station and adjacent to several Metro bus stops along Flower Street and Hope Street, providing residents and visitors to the Project with public transportation alternatives.	
Policy 5.2 Vehicle Miles Traveled (VMT) Support ways to reduce vehicle miles traveled (VMT) per capita.	Consistent. The Project is estimated to generate lower VMT per capita for residents than the average for the area, as demonstrated in Section 4B. Additionally, the Project incorporates design features, which include TDM measures to reduce the number of single occupancy vehicle trips to the Project Site, including bicycle parking per LAMC, with short-term and long-term parking facilities and a reduced vehicle parking supply.	

#### Notes:

[a] Objectives, Policies, Programs, or Plans based on information provided in *Mobility Plan 2035: An Element of the General Plan* (Los Angeles Department of City Planning, January 2016).

# TABLE 6 PROJECT CONSISTENCY WITH PLAN FOR A HEALTHY LOS ANGELES

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency	
Chapter 1 - Los Angeles, a Leader in Health and Equity		
Policy 1.5 Plan for Health Improve Angelenos' health and well-being by incorporating a health perspective into land use, design, policy, and zoning decisions through existing tools, practices, and programs.	Consistent. The Project would enhance pedestrian access with a new pedestrian entrance to the new residential lobby along Hope Street, as well as a relocated and enhanced pedestrian entrance to the Project Site from Hope Street. The Project would include new private residential open space and recreational amenities for residents, and the Project Site (outside the Development Area) contains existing open space accessible to the public. Further, the Project provides bicycle parking facilities to encourage bicycling for residents and visitors to the Project Site. As such, it would encourage the use of active travel modes and thereby promote healthy living.	
Chapter 2 - A City Built for Health		
Policy 2.8 Basic Amenities  Promote increased access to basic amenities, which include public restrooms and free drinking water in public spaces, to support active living and access to health-promoting resources.	Consistent. The Project's residential use does not include public spaces, but promotes active living with residential open space and recreational amenities for residents and their guests. The Project also includes a relocated and enhanced pedestrian entrance from Hope Street which provides access to publicly accessible open space areas adjacent to amenities within retail and other commercial uses, which also supports active living.	
Chapter 5 - An Environment Where Life Thrives		
Policy 5.7 Land Use Planning for Public Health and GHG Emission Reduction  Promote land use policies that reduce per capita greenhouse gas emissions, result in improved air quality and decreased air pollution, especially for children, seniors and others susceptible to respiratory diseases.	Consistent. The Project is estimated to generate lower VMT per capita for residents than the average for the area, as demonstrated in Section 4B. Additionally, the Project incorporates several design features, which include TDM measures to reduce the number of single occupancy vehicle trips, including bike parking for the new residential use per LAMC, including short-term and long-term parking facilities, as well as a reduction in vehicle parking supply. VMT directly contributes to GHG emissions, so a reduced VMT per capita also reduces GHG per capita.	

#### Notes:

[a] Objectives, Policies, Programs, or Plans based on information provided in *Plan for a Healthy Los Angeles: A Health and Wellness Element of the General Plan* (Los Angeles Department of City Planning, March 2015).

# TABLE 7 PROJECT CONSISTENCY WITH CENTRAL CITY COMMUNITY PLAN

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency
Policy 2-1.2: To maintain a safe, clean, attractive, and lively environment.	Consistent. The Project would provide pedestrian enhancements along Hope Street, such as enhanced paving along a portion of the existing sidewalk, a pedestrian entrance into the new residential lobby along Hope Street, and a relocated and enhanced pedestrian entrance into the Project Site from Hope Street. The location of three of the four existing pedestrian entrances, one along Hope Street and the other two along Flower Street, will remain unchanged and will continue to facilitate pedestrian access to the Project Site. The new residential tower will include residential open space and recreational amenities for residents and their guests to maintain an attractive and lively environment. The existing publicly accessible open space adjacent to commercial uses on the Project Site (outside of the Development Area) will remain and is accessible from pedestrian entrances to the Project Site, further maintaining an attractive and lively environment.
Policy 11-1.1: Encourage rail connections and High Occupancy Vehicle (HOV) lanes that will serve the downtown traveler.	Consistent. The Project Site contains a pedestrian portal leading directly to the adjacent 7th Street/Metro Center Station which provides direct connections to Union Station.
Policy 11-6.1: Preserve and enhance Central City's primary pedestrian-oriented streets and sidewalks and create a framework for the provision of additional pedestrian friendly streets and sidewalks which complement the unique qualities and character of the communities in Central City.	Consistent. The Project is a high-density residential project with existing commercial uses on-site that is conceived as a pedestrian- and transit-oriented development with pedestrian enhancements including a new pedestrian entrance into the residential lobby along on Hope Street, a relocated and enhanced pedestrian entry to the Project Site from Hope Street, as well as an on-site pedestrian portal to the adjacent 7th Street/Metro Center Station and proximity to other transit services. The Project will also include storefronts at the new ground level residential lobby and the relocated retail. The high quality finish materials of the ground level façade and storefronts will create interest at the pedestrian scale and enhance retail uses along Hope Street, further improving pedestrian-orientation. All existing sidewalks along the Project Site frontages will remain.
Policy 11-7.1: Encourage transportation strategies that include parking and TDM policies and actions that increase ridesharing and give priority to visitor/shopper parking.	Consistent. The Project design incorporates TDM measures to reduce the number of single occupancy vehicle trips to the Project Site through reduced vehicle parking supply and providing both long- and short-term bicycle parking per LAMC.

## Notes:

[a] Objectives, Policies, Programs, or Plans based on information provided in Central City Community Plan (Los Angeles Department of City Planning, 2003).

TABLE 8
PROJECT CONSISTENCY WITH DRAFT DOWNTOWN COMMUNITY PLAN

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency
Policy LU 1.1: Ensure the development of complete neighborhoods with diverse uses and resilient infrastructure, parks, streetscapes, transit, and community amenities.	Consistent. The Project will further diversify the existing uses on the Project Site by providin a high-density residential tower located in downtown Los Angeles adjacent to the 7th Street/Metro Center Station and to several Metro bus stops along Flower Street and Hope Street. The Project aims to enhance the existing Project Site by providing pedestrian enhancements such as a new pedestrian entrance into the new residential lobby and relocated retail on Hope Street and a relocated and enhanced pedestrian entry into the Project Site from Hope Street, as well as landscaping and enhanced paving along Hope Street in furtherance of development of a complete neighborhood.
Policy LU 11.1: Require active ground floors and street frontages that improve walkability and connectivity, especially between transit stations and nearby destinations.	Consistent. Along the Hope Street frontage, the Project incorporates a new pedestrian entrance to the new residential lobby and relocated retail space. The existing pedestrian entrance into the Project Site from Hope Street will be relocated to the north along Hope Street and will be enhanced with seating areas and landscaping. The Hope Street frontage will also be improved with enhanced paving along a portion of the adjacent sidewalk, along with inviting storefronts for the residential lobby and relocated retail on the Hope Street frontage. The Project Site will retain the on-site pedestrian portal to the 7th Street/Metro Center Station.
Policy LU 11.2: Encourage development that is well integrated with the public realm to create an inviting urban environment.	Consistent. The Project provides high-density residential uses near transit with accessible entries and passages and will be integrated with the existing Project Site that includes publicly accessible plaza areas adjacent to retail and other commercial uses, and an inviting pedestrian entrance from Flower Street which is an integral part of the surrounding urban environment.
Policy LU 11.4: Encourage building design that connects and orients people toward destinations and activity centers.	Consistent. The Project provides easy access to adjacent transit and to nearby attractions, including Fig at 7th, Grand Hope Park, sports venues, and shopping districts, which are strengthened by the Project Site's existing retail plaza/courtyard. The Project Site is an active activity center and destination, which orients people to the site with the pedestrian portal from the Metro Station and the pedestrian entrance to the retail plaza/courtyard along Flower Street, and the Project Site will be augmented by the new residential use and enhanced pedestrian connections. The location of three of the four existing pedestrian entrances, one along Hope Street and the other two along Flower Street, will remain unchanged and will continue to facilitate pedestrian access to the Project Site.

#### Notes

 <sup>[</sup>a] Objectives, Policies, Programs, or Plans based on information provided in the draft text of Downtown Los Angeles Community Plan (Los Angeles Department of City Planning, 2023).

# TABLE 8 (CONTINUED) PROJECT CONSISTENCY WITH DRAFT DOWNTOWN COMMUNITY PLAN

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency
Policy LU 11.8: Promote compact development and encourage walking, biking, and transit use by encouraging no or minimal parking, when possible.	Consistent. The Project would promote compact development by locating a high-density residential tower within and above an existing retail and parking podium and adjacent to existing commercial and retail establishments. Additionally, the Project encourages alternative transportation by providing secured bicycle parking facilities for the new residential uses and enhanced pedestrian connections to the Project and the Project Site, facilitating connections to off-site/adjacent sidewalks. This would promote active transportation modes such as biking and walking. Additionally, the Project is located adjacent to the 7th Street/Metro Center Station and to several Metro bus stops, providing residents and visitors to the Project with easily accessbile public transportation alternatives. The Project also proposes to provide on-site parking that will be sufficient to meet demand but that is reduced as compared to the current requirements of the LAMC.
Policy LU 11.9: Encourage underground parking, when provided, to increase the amount of above grade building square footage dedicated to active uses and to improve the pedestrian environment.	Consistent. The Project would retain existing subterranean parking and would provide new and relocated parking in the existing retail/parking podium, where it would not be exposed to those traveling on adjacent streets. The Project would also activate pedestrian access to the podium building along Hope Street with the pedestrian entrance to the new residential lobby and relocated retail along Hope Street, and the relocated and enhanced pedestrian entrance to the Project Site along Hope Street, all of which would improve the pedestrian environment.
Policy LU 22.2: Foster and reinforce cohesive, pedestrian- friendly, and inviting screeetscapes that promote walking, bicycling, and transit use. Encourage the creative infill of landscaped setbacks and inoperative spaces, such as those resulting from inconsistent streetwalls.	Consistent. The Project incorporates a new pedestrian entry to the new residential lobby along Hope Street. A relocated and enhanced pedestrian passageway accessed along Hope Street will be located adjacent to the right-of-way shade trees and landscape tree wells and enhanced sidewalk pavement to support connectivity and improve the pedestrian experience.
Policy LU 22.6: Encourage new developments to contribute to the pedestrian and open space network with publicly accessible plazas and paseos. Design these spaces with appropriate shade and landscaping.	Consistent. The Project incorporates a new pedestrian entrance to the residential lobby oriented toward Hope Street, an entrance to a relocated retail use, and a relocated and enhanced pedestrian passageway into the Project Site accessed from Hope Street. Three existing pedestrian entrances, one along Hope Street and the other two along Flower Street, will remain unchanged and will continue to facilitate pedestrian access into the Project Site. In addition, trees and other landscaping elements would be incorporated along a portion of Hope Street to provide adequate shade for a more comfortable mobility environment for pedestrians. The Project will also retain the existing publicly accessible plaza adjacent to the existing commercial uses on the Project Site (but outside of the Development Area).
Policy LU 22.9: Encourage an active, walkable environment through building design that incorporates active ground floor uses and streetscape elements that provide an enhanced pedestrian experience.	Consistent. The Project incorporates new pedestrian entrances on Hope Street to the ground-floor residential lobby and a relocated and enhanced pedestrian access along Hope Street. The Project will also relocate retail space by adding an enhanced retail storefront along Hope Street, and will include replacement landscaping and enhanced paving along a portion of Hope Street

#### Notes

 [a] Objectives, Policies, Programs, or Plans based on information provided in the draft text of Downtown Los Angeles Community Plan (Los Angeles Department of City Planning, 2023).

# TABLE 8 (CONTINUED) PROJECT CONSISTENCY WITH DRAFT DOWNTOWN COMMUNITY PLAN

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency
Policy MC 2.1: Establish a mode share goal of 75% for transit, walking, and biking for the year 2040 to improve the sustainability of Downtown's mobility network and increase access for residents, workers, and visitors.	Consistent. Although Policy MC 2.1 sets a City goal for mode share and not a project-specific goal, the Project would be consistent with this policy. Specifically, the Project would support multi-modal mobility options such as biking and transit usage. Additionally, the Project design incorporates TDM measures to reduce the number of single occupancy vehicle trips to the Project Site.
Policy MC 2.2: Implement strategies to reduce vehicle miles traveled per capita.	<b>Consistent.</b> The Project is estimated to generate lower VMT per capita for residents than the average for the area. Further, it would implement a TDM program to further reduce VMT per capita and would be subject to the requirements of the new TDM Ordinance.
Policy MC 2.5: Facilitate integration between different modes of travel to create a seamless experiences as users switch between modes and to promote transit use and active transportation.	Consistent. The Project would support multi-modal mobility options such as biking and is located adjacent to the 7th Street/Metro Center Station and to several Metro bus stops. The pedestrian portal to the Metro Station, and pedestrian pathways through the Project Site further facilitate mobility.
Policy MC 3.4: Enhance the pedestrian experience between major destinations and transit stations through improved streetscapes and wayfinding programs.	Consistent. The Project is located adjacent to the 7th Street/Metro Center Station, which is accessed via a pedestrian portal on the Project Site, and is adjacent to several Metro bus stops. The Project would enhance the pedestrian experience through pedestrian improvements including a new pedestrian entrance to the new residential lobby on Hope Street, a relocated and enhanced pedestrian entrance along Hope Street, and enhanced paving and landscaping along a portion of Hope Street. The Project would also maintain the existing public plaza/courtyard that provides connectivity through the Project Site and to transit options.
Policy MC 4.2: Encourage residential and office buildings to provide bicycle related amenities such as repair stations and showers to facilitate cycling for residents, workers, and visitors.	Consistent. The Project proposes high-density residential uses and would provide bicycle infrastructure and amenities for residents to encourage bicycling. Existing bicycle share facilities are proximal to the Project Site.

#### Notes:

<sup>[</sup>a] Objectives, Policies, Programs, or Plans based on information provided in the draft text of *Downtown Los Angeles Community Plan* (Los Angeles Department of City Planning, 2023).

# TABLE 9 PROJECT CONSISTENCY WITH CITYWIDE DESIGN GUIDELINES

## Objective, Policy, Program, or Plan [a]

#### **Analysis of Project Consistency**

#### Pedestrian-First Design

# Guideline 1: Promote a safe, comfortable, and accessible pedestrian experience for all

Design projects to be safe and accesible and contribute to a better public right-of-way for people of all ages, genders, and abilities, especially the most vulnerable - children, seniors, and people with disabilities.

# Guideline 2: Carefully incorporate vehicular access such that it does not degrade the pedestrian experience

Design to avoid pedestrian and vehiular conflicts and to create an inviting and comfortable public right-of-way. A pleasant and welcoming public realm reinforces walkability and improves the quality of life for users.

# Guideline 3: Design projects to actively engage with streets and public space and maintain human scale

New projects should be designed to contribute to a vibrant and attractive public realm that promotes a sense of civic pride. Better connections within the built environment contribute to a livable and accessible city and a healthier public realm.

Consistent. The Project design will retain existing sidewalks along the Project Site frontages and will enhance the pavement and provide five new replacement street trees in landscape tree wells along a 190-foot portion of the Hope Street sidewalk near the new residential lobby to improve the pedestrian experience. The Project will maintain existing vehicular access driveways in accordance with the City's design considerations. Further, the orientation of the Project design and active ground floor facilities, including the relocated pedestrian entrance from Hope Street, which will be enhanced with landscaping and seating, and the enhanced retail storefront along Hope Street adjacent to the new residential lobby, ensures that the Project actively engages with the street and its surrounding uses.

#### Notes:

[a] Objectives, Policies, Programs, or Plans based on information provided in Citywide Design Guidelines (Los Angeles Department of City Planning, 2019).

# Section 4B: Threshold T-2.1 Causing Substantial VMT Analysis

The Mobility Plan sets forth objectives to decrease VMT, including land use parameters aimed at shortening the distance between housing, jobs, and services, and increasing the availability of housing near transit, which offers more attractive non-vehicle alternatives and reduces vehicular trip making and congestion.

Threshold T-2.1 of the TAG analyzes whether a project causes substantial VMT and is generally applied to land use projects. Specifically, Threshold T-2.1 inquires whether the project would conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)(1). This subdivision states that (for land use projects) "[v]ehicle miles travelled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact." Public Resources Code Section 21064.3 defines a major transit stop as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon commute periods. Here, the Project Site is located adjacent to an existing major transit stop, the 7th Street/Metro Center Station, which provides service to the Metro A, B, D, and E rail lines, as well as numerous local and regional bus lines.

CEQA Guideline section 15064.3(b)(1) also states that a lead agency has discretion to choose the most appropriate method to evaluate the project's VMT. As the Lead Agency for this Project, the City uses the analytical methods established by LADOT to determine impacts. Section 2.2.3 of the TAG states that a residential project would result in a significant VMT impact if it would generate household VMT per capita exceeding 15% below the existing average household VMT per capita for the Area Planning Commission (APC) area in which a project is located. Similarly, a commercial project would result in a significant VMT impact if it would generate work VMT per employee exceeding 15% below the existing average work VMT per employee for the APC area in which the project is located.

The VMT analysis presented below was conducted in accordance with the TAG, which satisfies State requirements under SB 743.

## **VMT METHODOLOGY**

The following details the methodology used to calculate vehicle trips and VMT in *City of Los Angeles VMT Calculator Version 1.3* (LADOT, July 2020) (VMT Calculator), as detailed in *City of Los Angeles VMT Calculator Documentation* (LADOT and LADCP, May 2020). LADOT developed the VMT Calculator to estimate project-specific daily household VMT per capita and daily work VMT per employee for developments within City limits, which are based on the following types of one-way trips:

- Home-Based Work Production: trips to a workplace destination originating from a residential use
- <u>Home-Based Other Production</u>: trips to a non-workplace destination (e.g., retail, restaurant, etc.) originating from a residential use
- <u>Home-Based Work Attraction</u>: trips to a residential destination originating from a workplace use

As detailed in *City of Los Angeles VMT Calculator Documentation*, the household VMT per capita threshold applies to Home-Based Work Production and Home-Based Other Production trips, and the work VMT per employee threshold applies to Home-Based Work Attraction trips, as the location and characteristics of residences and workplaces are often the main drivers of VMT, as detailed in Appendix 1 of *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR, December 2018). As noted in Section 2.2.2 of the TAG, small-scale retail/restaurant components less than 50,000 sf of larger mixed-use development projects are not considered for the purposes of identifying significant work VMT per employee impacts, as those trips are assumed to be local serving and would have a negligible effect on VMT.

Table 2.2-1 of the TAG details the following daily household VMT per capita and daily work VMT per employee impact criteria for the City's APC areas (15% below the APC average):

APC	Daily Household VMT per Capita	Daily Work VMT per Employee
Central	6.0	7.6
East LA	7.2	12.7
Harbor	9.2	12.3
North Valley	9.2	15.0
South LA	6.0	11.6
South Valley	9.4	11.6
West LA	7.4	11.1

Source: TAG

The Project is located in the Central APC area. Thus, the relevant impact criteria is 6.0 daily household VMT per capita and 7.6 daily work VMT per employee.

Other types of one-way trips included in the VMT Calculator include Non-Home-Based Other Production (trips to a non-residential destination originating from a non-residential use at the Project Site), Home-Based Other Attraction (trips to a non-workplace destination at the Project Site originating from a residential use), and Non-Home-Based Other Attraction (trips to a non-residential destination at the Project Site originating from a non-residential use). These trip types are not factored into the household VMT per capita and work VMT per employee thresholds as those trips are typically localized and are assumed to have a negligible effect on the VMT impact assessment. However, those trips were factored into the calculation of total Project VMT for screening purposes when determining that VMT analysis for the Project would be required, as detailed in the MOU provided in Appendix A.

# **Travel Behavior Zone (TBZ)**

The City developed TBZ categories to determine the magnitude of VMT and vehicle trip reductions that could be achieved through TDM strategies. As detailed in *City of Los Angeles VMT Calculator Documentation*, the development of the TBZs considered the population density, land use density, intersection density, and proximity to transit of each Census tract in the City and are categorized as follows:

- 1. Suburban (Zone 1): Very low-density primarily centered around single-family homes and minimally connected street network.
- 2. Suburban Center (Zone 2): Low-density developments with a mix of residential and commercial uses with larger blocks and lower intersection density.
- 3. Compact Infill (Zone 3): Higher density neighborhoods that include multi-story buildings and well-connected streets.
- 4. Urban (Zone 4): High-density neighborhoods characterized by multi-story buildings with a dense road network.

The VMT Calculator determines a project's TBZ based on the latitude and longitude of the project address. The Project Site is located in an Urban (Zone 4) TBZ.

## **Trip Lengths**

The VMT Calculator determines a project's VMT based on trip length information from the City's Travel Demand Forecasting (TDF) Model. The TDF Model considers the traffic analysis zones within 0.125 miles from the Project to determine the trip lengths and trip types, which factor into the calculation of the project's VMT.

# **Population and Employment Assumptions**

As previously stated, the VMT thresholds identified in the TAG are based on household VMT per capita and work VMT per employee. Thus, the VMT Calculator contains population assumptions developed based on Census data for the City and employment assumptions derived from multiple data sources, including 2012 Developer Fee Justification Study (Los Angeles Unified School District, 2012), the San Diego Association of Governments' Activity Based Model, *Trip Generation Manual*, 9<sup>th</sup> Edition (ITE, 2012), the United States Department of Energy, and other modeling resources. A summary of population and employment assumptions for various land uses is provided in Table 1 of City of Los Angeles VMT Calculator Documentation.

# **TDM Measures**

Additionally, the VMT Calculator measures the reduction in VMT resulting from a project's incorporation of TDM strategies as project design features or mitigation measures. The following seven categories of TDM strategies are included in the VMT Calculator:

- 1. Parking
- 2. Transit
- 3. Education and Encouragement
- 4. Commute Trip Reductions
- 5. Shared Mobility
- 6. Bicycle Infrastructure
- 7. Neighborhood Enhancement

TDM strategies within each of these categories have been empirically demonstrated to reduce trip-making or mode choice in such a way as to reduce VMT, as documented in *Quantifying Greenhouse Gas Mitigation Measures* (California Air Pollution Control Officers Association, 2010).

## **PROJECT VMT ANALYSIS**

The VMT Calculator was used to evaluate Project VMT for comparison to the applicable VMT impact criteria. The VMT Calculator utilized the Project's land use and density as the primary input. The Project does not include the development of non-residential uses. Therefore, the Project would not generate any work VMT and would not result in a work VMT impact.

# **Project VMT**

The Project incorporates TDM features that would reduce the number of single occupancy vehicle trips to the Project Site and promote non-automobile travel modes. For the purposes of the VMT analysis, the Project's reduced vehicle parking supply and provision of short-term and long-term

bicycle parking supply per LAMC requirements, as discussed in Section 4A, were accounted for in the VMT evaluation.

The VMT analysis results based on the VMT Calculator are summarized in Table 10. The VMT Calculator estimates that the Project would generate 2,530 total household VMT. Thus, the Project would generate average household VMT per capita of 2.4. The average household VMT per capita would not exceed the Central APC significant household VMT impact threshold of 6.0 and, therefore, the Project would not result in a significant VMT impact and no mitigation measures would be required.

The detailed output from the VMT Calculator is provided in Appendix D.

#### **CUMULATIVE ANALYSIS**

Pursuant to the TAG, cumulative effects of development projects are determined based on the consistency with the air quality and GHG reduction goals of *Connect SoCal – The 2020–2045 Regional Transportation Plan / Sustainable Communities Strategy* (Southern California Association of Governments [SCAG], Adopted September 3, 2020) (RTP/SCS) in terms of development location, density, and intensity. The RTP/SCS presents a long-term vision for the region's transportation system through Year 2045 and balances the region's future mobility and housing needs with economic, environmental, and public health goals.

As detailed in the TAG, for projects that do not demonstrate an impact by applying an efficiency-based impact threshold (i.e., household VMT per capita or work VMT per employee) in the project impact analysis, a less than significant impact conclusion is sufficient in demonstrating there is no cumulative VMT impact, as those projects are already shown to align with the long-term VMT and GHG goals of the RTP/SCS. The Project would not result in a significant VMT impact, as described above. Further, the Project would be designed to further reduce single occupancy trips to the Project Site through TDM strategies that would be incorporated as Project features, including provisions of a reduced parking supply and LAMC-required bicycle parking. Therefore, the Project is not anticipated to result in a cumulative VMT impact under Threshold T-2.1, and no further evaluation or mitigation measures would be required.

Moreover, as previously detailed, the Project would be located adjacent to the 7<sup>th</sup> Street/Metro Center Station and the Project Site is well-served by various rail lines, as well as local and rapid bus lines which provide convenient, non-automobile travel options.

Thus, the Project encourages a variety of transportation options and is consistent with the RTP/SCS goal of maximizing mobility and accessibility in the region. The Project would also contribute to the productivity and use of the regional transportation system by providing housing near transit and encourage active transportation by providing new bicycle parking infrastructure, activating street frontages, and enhancing pedestrian connections, consistent with RTP/SCS goals. Therefore, the Project would not result in a cumulative VMT impact under Threshold T-2.1 and no further evaluation or mitigation measures would be required.

# TABLE 10 VMT ANALYSIS SUMMARY

Project Information		
Project Address	700 S. Flower Street	
Project Land Uses	Size	
Multi-Family Housing	466 units	
Project Analysis [a]		
Resident Population [b]	1,050	
Project Area Planning Commission	Central	
Travel Behavior Zone [c]	Urban	
Maximum VMT Reduction [d]	75%	
VMT Analysis [e]		
Daily Vehicle Trips	1,213	
Daily VMT	7,564	
Total Household VMT	2,530	
Household VMT per Capita [f]	2.4	
Impact Threshold	6.0	
Significant Impact	NO	

#### Notes:

- [a] Project Analysis is from VMT Calculator Version 1.3 output reports provided in Appendix D.
- [b] Total population and employment estimates are based on the following factors: Multi-Family Housing: 2.25 resident population / unit
- [c] An "Urban" TBZ is characterized in City of Los Angeles VMT Calculator Documentation (LADOT and DCP, May 2020) as higher density neighborhoods that include multi-story buildings with a dense road network.
- [d] The maximum allowable VMT reduction is based on the Project's designated TBZ.
- [e] The Project includes several design features considered as TDM strategies to reduce the number of single occupancy vehicle trips such as a reduced parking supply and the provision of bicycle parking. The Project does not include non-residential uses; therefore, the Project would not generate any work VMT, and thus, would not result in a work VMT impact.
- [f] Household VMT per Capita is based on the "home-based work production" trip types.

Section 4C: Threshold T-2.2

**Substantially Inducing Additional Automobile Travel Analysis** 

Threshold T-2.2 applies to transportation projects. The TAG explains that transportation projects that increase vehicular capacity can lead to additional travel on the roadway network, which can include induced vehicle travel due to factors such as increased speeds and induced growth. The TAG also provides screening criteria and states:

"[i]f the answer is no to the following question, further analysis will not be required for Threshold T-2.2, and a no impact determination can be made for that threshold:

"T-2.2: Would the project include the addition of through traffic lanes on existing or new highways, including general purpose lanes, high-occupancy vehicle (HOV) lanes, peak period lanes, auxiliary lanes, and lanes through grade-separated interchanges (except managed lanes, transit lanes, and auxiliary lanes of less than one mile in length designed to improve roadway safety)?"

The Project does not include additional through traffic lanes on existing or new highways, general purpose lanes, high-occupancy vehicle lanes, peak period lanes, auxiliary lanes, or lanes through grade-separated interchanges. Accordingly, neither the Project nor any improvements associated with it are considered a transportation project. Therefore, Threshold T-2.2 does not apply to the Project, there would be no impact, and no further evaluation is required.

## Section 4D: Threshold T-3

# Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use Analysis

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

Further evaluation is required for projects that require a discretionary action and (1) propose new driveways or introduce new vehicle access to the property from the public ROW or (2) propose any voluntary or required modifications to the public ROW (i.e., street dedications, reconfigurations of curb line, etc.) As previously detailed, the Project would utilize existing vehicle access to the Project Site and does not propose or result in a need for new driveways, vehicular access, or modification to the public ROW. Also, subject to approval by LADCP's Advisory Agency, the Project is requesting a waiver of dedication/improvement along all Project frontages because dedication and improvement would conflict with the existing infrastructure and, thus, does not propose any expansion or improvement of the public ROW. The Project proposes to install new pavers on the existing sidewalk along a portion of Hope Street, and replace existing street trees along that same portion, but such improvements would not affect the geometric design or use of the pedestrian sidewalk facility. The threshold for determining impacts is whether the Project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Therefore, because the Project does not include any new geometric design features or uses that could introduce or exacerbate hazards, further evaluation related to Threshold T-3 is not required for the Project. Nevertheless, an evaluation was conducted and is provided for informational purposes only.

#### PROJECT ACCESS REVIEW

A review of Project access points, internal circulation, and parking access was conducted to determine if the Project would substantially increase hazards due to geometric design features, including safety, operational, or capacity impacts. This analysis considered the following factors: (a) the relative amount of pedestrian activity at project access points; (b) design features/physical configurations that affect the visibility of pedestrians and bicyclists to drivers entering and exiting the site, and the visibility of cars to pedestrians and bicyclists; (c) the type of bicycle facilities the project driveway(s) crosses and the relative level of utilization; (d) the physical conditions of the site and surrounding area, such as curves, slopes, walks, landscaping or other barriers, that could result in vehicle/pedestrian, vehicle/bicycle, or vehicle/vehicle impacts; (e) the project location, or project-related changes to the public ROW, relative to proximity to the HIN or a Safe Routes to School (SRTS) program area; (f) any other conditions, including the approximate location of incompatible uses that would substantially increase a transportation hazard. These factors are addressed below.

# Pedestrian Activity

Vehicular access to the Project Site would continue to be provided via existing driveways, which would remain unchanged, along Flower Street and 8<sup>th</sup> Street, both designated as Modified Avenue II, and Hope Street, a designated Avenue II. Service and truck access would be provided via an existing driveway along 8<sup>th</sup> Street. All streets are identified as part of the PED.

Vehicle activity at the existing Flower Street, 8<sup>th</sup> Street, and Hope Street driveways would increase with the addition of Project traffic from the new residential units. The existing pedestrian refuge areas would remain between the inbound and outbound driveways along 8<sup>th</sup> Street and would continue to reduce the crossing distance and reduce potential pedestrian-vehicular conflicts. With the Project, existing mirrors at the driveways would remain and would continue to make drivers aware of approaching pedestrians. In addition, prior to issuance of certificate of occupancy for the new residential building, the Project would incorporate pedestrian safety enhancements at the Project driveways along Flower Street and Hope Street, including signalized alert systems with loops, sensors, signs, and pavement markings, to warn pedestrians of vehicle traffic exiting the Project driveways. Pedestrian signals are also provided at all adjacent signalized intersections,

which continue to provide controlled pedestrian crossings to the Project access point and, thus, reduce potential pedestrian-vehicular conflicts.

Existing pedestrian activity adjacent to the Project Site and in the Project Area is detailed in Appendix B and shows a maximum of 494 pedestrians walking along the Project Site's Flower Street frontage, approximately 431 pedestrians traveling along the Project Site's Hope Street frontage, and approximately 515 pedestrians walking along the Project Site's 8th Street frontage during the worst-case peak hour. Due to the location of the Project Site and its proximity to the 7th Street/Metro Center Station, pedestrian volumes are expected to increase on all sides of the Project Site, even though the Project's new residential uses would be limited to the southern portion of the Project Site. Project driveways would remain clear of hardscapes, vegetation, or signage that would impede sight lines.

#### **Driveway Design Features**

Adjacent to the Project Site, Flower Street provides four southbound travel lanes. The existing Flower Street driveway intersects Flower Street at a right angle and is located approximately 60 feet north of 8<sup>th</sup> Street and approximately 500 feet south of 7<sup>th</sup> Street. The driveway would continue to accommodate left-turn-only ingress and left-turn-only egress maneuvers. The existing sidewalk width would be maintained adjacent to the driveway. The Project does not propose any modifications to the existing driveway on Flower Street and does not propose any hardscape features, walls, or landscaping that would obstruct sight distance or visibility of approaching vehicles, pedestrians, or bicycles.

Adjacent to the Project Site, Hope Street provides four travel lanes, two southbound lanes and two northbound lanes. The existing Hope Street driveway intersects Hope Street at a right angle and is located approximately 500 feet south of 7<sup>th</sup> Street and approximately 60 feet north of 8<sup>th</sup> Street. The driveway would continue to accommodate both ingress and egress maneuvers. The existing sidewalk width adjacent to the driveway would be maintained. The Project does not propose any modifications to the existing driveway on Hope Street and does not propose any hardscape features, walls, or landscaping that would obstruct sight distance or visibility of approaching vehicles, pedestrians, or bicycles.

Adjacent to the Project Site, 8<sup>th</sup> Street provides four westbound travel lanes. The three existing driveways along 8<sup>th</sup> Street intersect 8<sup>th</sup> Street at a right angle and are located approximately 125 feet west of Hope Street and approximately 115 feet east of 8<sup>th</sup> Street and would continue to accommodate ingress only via the northwestern driveway and egress only via the southeastern driveway. The center driveway along 8<sup>th</sup> Street would continue to provide ingress and egress access to the commercial loading area. The sidewalk width adjacent to the driveways and the pedestrian refuge area would be maintained. The Project does not propose any modifications to the driveways and does not propose any hardscape features, walls, or landscaping that would obstruct sight distance or visibility of approaching vehicles, pedestrians, or bicycles.

# **Bicycle Facilities**

Currently, there are bicycle lanes and a bicycle share station provided adjacent to the Project Site along 7<sup>th</sup> Street. None of the Project driveways would cross any existing bicycle lanes or routes. Further, as detailed in Appendix B, approximately 352 bicycles during the entire six-hour peak period travel along the Project's 8<sup>th</sup> Street, Flower Street, and Hope Street frontages. Flower Street and 7<sup>th</sup> Street adjacent to the Project Site are designated as part of the BLN and BEN, respectively, in the Mobility Plan; however, there is currently no schedule for implementation of bicycle improvements and the Project would not preclude the City from future implementation of bicycle infrastructure. The Project does not propose any modifications to the existing driveways and the driveways would continue to provide adequate sight distance and pedestrian refuge areas to limit potential vehicular-bicycle conflicts. Therefore, the Project driveways are not projected to pose a safety hazard to bicyclists.

## **Physical Terrain**

The topography of the Project Site is relatively level and would remain unchanged. There is an approximately 11-foot grade change from the highest point of the Project Site at 7<sup>th</sup> Street & Flower Street to the lowest point of the Project Site near 8<sup>th</sup> Street & Hope Street. All existing driveways were originally designed to intersect the sidewalk and street at right angles with adequate building setback to allow pedestrians and bicyclists to observe vehicles within the driveways.

The Project would provide streetscape elements consisting of enhanced sidewalk paving and replacement street trees in landscaped tree wells along a portion of Hope Street adjacent to the residential lobby. Additionally, the existing pedestrian sidewalks along Flower Street, 8<sup>th</sup> Street, and 7<sup>th</sup> Street contain existing street trees that would remain and continue to provide shade to create a walkable and attractive pedestrian environment.

## **Project Location**

The Project Site is located adjacent to 7<sup>th</sup> Street and 8<sup>th</sup> Street, which are identified as part of the HIN. The Project Site is not adjacent to any street considered part of any identified SRTS. Additionally, the SRTS map does not identify any infrastructure improvement projects within the Study Area.

The Project would utilize existing driveways along Flower Street, Hope Street, and 8<sup>th</sup> Street, and does not propose any new curb cuts within the public ROW. Vehicle access for the Project would be separate from the pedestrian and bicycle access points.

The Project would maintain the existing driveway and roadway widths, and the Project would not preclude future roadway improvements proposed in the Mobility Plan.

## **Incompatible Uses**

The Project integrates residential uses with existing hotel and commercial uses within the Project Site and would connect to surrounding pedestrian walkways, vehicular access points, and existing Project Site open space (not a part of the Development Area) to provide an attractive, well-defined, and accessible interaction between the Project and the surrounding hotel and commercial uses within the Project Site. The Project also places residential uses in proximity to transit opportunities and adjacent commercial uses in the surrounding area. As previously mentioned, the Project does not propose new vehicle driveways along the public ROW and would utilize and maintain existing driveways to the on-site parking garage. Therefore, the Project driveways would not create any incompatible uses or any unusual or new obstacles that would be considered hazardous to motorized vehicles, non-motorized vehicles, or pedestrians.

# **Summary**

Based on the site plan review and design assumptions, the Project would not substantially increase hazards due to geometric design features or incompatible uses. Therefore, impacts are considered less than significant.

#### **CUMULATIVE ANALYSIS**

In addition to potential Project-specific impacts, the TAG requires that the Project be reviewed in combination with Related Projects with access points along the same block as the proposed project to determine if there may be a cumulatively significant impact. Currently, no identified Related Projects are proposed with access points along the same block of the Project, which encompasses the entire block. Therefore, the Project would not result in cumulative impacts that would substantially increase hazards due to geometric design features, including safety, operational, or capacity impacts.

# Section 4E Freeway Safety Analysis

In May 2020, LADOT issued *Interim Guidance for Freeway Safety Analysis* (City Freeway Guidance) identifying City requirements for a CEQA safety analysis of freeway off-ramp facilities as part of a transportation assessment. As detailed in the City Freeway Guidance, since the VMT analysis as a CEQA metric does not relieve a public agency of the requirement to analyze a project's potential significant impacts related to air quality, noise, safety, or any other impact associated with transportation, LADOT developed additional environmental screening to evaluate a development project's effects on freeway off-ramp queuing. Such an evaluation measures a project's potential to lengthen a forecasted off-ramp queue and create speed differentials between vehicles exiting the freeway off-ramps and vehicles operating on the freeway mainline.

#### **ANALYSIS METHODOLOGY**

The City Freeway Guidance relates to the identification of potential safety issues at freeway offramps as a result of increased traffic from development projects. As stated above, it provides a methodology and significance criteria for assessing whether additional vehicle queueing at offramps could result in a safety issue due to speed differentials between the mainline freeway lanes and the queued vehicles at the off-ramp.

Based on the City Freeway Guidance, a transportation assessment for a development project must include analysis of any freeway off-ramp where the project adds 25 or more peak hour trips. A project may result in a significant safety issue at such a ramp if each of the following three criteria were met:

- 1. Under a scenario analyzing future conditions upon project buildout, with project traffic included, the off-ramp queue would extend to the mainline freeway lanes<sup>7</sup>.
- 2. The project would contribute at least two vehicle lengths (50 feet, assuming 25 feet per vehicle) to the queue.
- 3. The average speed of mainline freeway traffic adjacent to the off-ramp during the analyzed peak hour(s) is greater than 30 mph.

Should the three criteria above be met, corrective measures to be considered include TDM strategies to reduce a project's trip generation, investments in active transportation or transit system infrastructure to reduce a project's trip generation, changes to the traffic signal timing or lane assignments at the ramp intersection, or physical changes to the off-ramp. Any physical change to the ramp would have to improve safety, not induce greater VMT, and not result in secondary environmental impacts.

#### **PROJECT ANALYSIS**

As detailed in Table 3 of the MOU provided in Appendix A, based on the Project's trip generation estimates and traffic distribution pattern, the Project would not add 25 or more peak hour trips to any freeway off-ramp. Therefore, no freeway off-ramp analysis is required. Therefore, the Project is not anticipated to result in any adverse safety conditions to any freeway off-ramp facilities.

<sup>&</sup>lt;sup>7</sup> If an auxiliary lane is provided on the freeway, then half the length of the auxiliary lane is added to the ramp storage length.

# Chapter 5

# Non-CEQA Transportation Analysis

Section 3 of the TAG provides guidance for preparing additional transportation analyses that are not required to determine the CEQA impacts of the Project because VMT is the legally applicable methodology for analyzing traffic, circulation, and transportation impacts. This chapter summarizes the non-CEQA transportation analysis of the Project. It includes sections related to the Project traffic, proposed access provisions, safety, and circulation operations of the Project, and the adjacent pedestrian, bicycle, and transit facilities. This chapter also evaluates the Project's operational conditions and effects due to Project construction.

Per Section 3.1 of the TAG, any deficiencies identified based on the non-CEQA transportation analysis is "not intended to be interpreted as thresholds of significance, or significance criteria for purposes of CEQA review unless otherwise specifically identified in Section 2." Section 3 of the TAG identifies the following four non-CEQA transportation analyses for reviewing potential transportation deficiencies that may result from a development project:

- Pedestrian, Bicycle, and Transit Access Assessment
- Project Access, Safety, and Circulation Evaluation
- Residential Street Cut-Through Analysis
- Construction Analysis

The four non-CEQA transportation analyses are reviewed in detail in Sections 5A-5D.

# Section 5A

# Pedestrian, Bicycle, and Transit Assessment

This section assesses the Project's potential effect on pedestrian, bicycle, and transit facilities in the vicinity of the Project Site.

Factors to consider when assessing a project's potential effect on pedestrian, bicycle, and transit facilities, include the following:

- Would the project directly or indirectly result in a permanent removal or modification that would lead to the degradation of pedestrian, bicycle, or transit facilities?
- Would a project intensify use of existing pedestrian, bicycle, or transit facilities?

#### **EXISTING FACILITIES**

All streets within the Project Area have been identified as part of the PED. Pedestrian sidewalks currently exist on all sides fronting the Project Site, including 12-foot-wide sidewalks on Flower Street, 10-foot-wide sidewalks on 7<sup>th</sup> Street, 10-foot-wide sidewalks on 8<sup>th</sup> Street, and 10-foot-wide sidewalks on Hope Street. Existing standard and continental crosswalks are installed at the signalized intersections of Hope Street & 7<sup>th</sup> Street, Flower Street & 7<sup>th</sup> Street, Flower Street & 8<sup>th</sup> Street, and Hope Street & 8<sup>th</sup> Street. Figure 7 shows a map of pedestrian destinations, including commercial and cultural facilities within walking distance of the Project Site that could attract pedestrian activity.

Existing bicycle lanes are provided along the Project frontage on 7<sup>th</sup> Street. 7<sup>th</sup> Street and Flower Street adjacent to the Project Site are designated as part of the BEN and BLN, respectively, in the Mobility Plan; however, there is currently no schedule for implementation of bicycle improvements and the Project would not preclude the City from future implementation of bicycle infrastructure.

#### PROJECT MODIFICATIONS

The Project would utilize the existing driveways on Flower Street, Hope Street, and 8<sup>th</sup> Street. As discussed previously, these driveways do not present significant safety hazards for pedestrians or bicyclists by design or placement. The Project would not remove or cause degradation of existing sidewalks, crosswalks, pedestrian refuge areas or curb extensions, nor will it narrow existing sidewalks, paths, crossings, or access points.

The Project would provide bicycle parking that meets the LAMC requirements for residents and their guests, along with bicycle amenities. The bicycle parking area for residents and guests would be accessed from the residential lobby. The Project would not result in degradation of any existing bicycle facilities; rather, the Project enhances and encourages bicycle use through these active design measures.

The Project design does not remove or degrade existing transit and/or pedestrian amenities and does not result in loss of transit stops or removal of bus pads or other supporting facilities. Instead, the Project will improve on these elements by including streetscape features along a portion of Hope Street adjacent to the residential lobby, accessible short-term bicycle parking, and enhancing pedestrian pathways, which would all be accessible from the adjacent sidewalks.

The Project design does not remove existing transportation system elements. The Project instead improves upon existing systems by enhancing streetscape amenities and relocated pedestrian paths and providing bicycle security.

Design of the Project does not create extended crossing distances for pedestrians; rather, it enhances linkages both to the Project's new residential uses and the existing hotel and commercial uses on the Project Site outside of the Development Area, facilitating movement through the use of existing and proposed internal paths, ramps, and stairs to assist mobility for all users. No modifications to intersections or crosswalks that would increase the number of travel lanes, the turn radii, or the vehicle turning speeds are required as part of the Project. New pedestrian access to the Project would be provided via the new residential lobby entrance along Hope Street, which would provide a direct connection to the existing pedestrian walkways within and around the Project Site, as well as to residential open space and recreational amenities, as well as existing publicly accessible open space located on the Project Site outside of the

Development Area. Street trees and other landscaping elements are incorporated to provide adequate shade and natural habitat to provide a more comfortable mobility environment for pedestrians along Hope Street.

#### INTENSIFICATION OF USE

The Project proposes approximately 495,016 sf of residential development adjacent to an extensive transit system. The Project would intensify pedestrian, bicycle, and transit usage in this part of downtown which consequently reduces dependence on personal vehicles and shortens the overall VMT attributable to the Project Site.

The Project facilitates and encourages intensification of pedestrian, bicycle, and transit usage through the addition of residential uses to create a mixed-use development and the design of new residential open space and bicycle/pedestrian amenities. The Project considers safety through well-designed, limited access points, significant on-site vehicle and bicycle storage, above-grade and underground parking that is not visible from the street, improved public access into the Project Site from existing sidewalks, and the introduction of exterior lighting for wayfinding signage and security purposes.

## **Pedestrian Facilities**

Increased numbers of pedestrians around the Project Site will be able to utilize existing sidewalks for ease of travel that connect to walkways internal to the Project Site. Sidewalk widths established by the Mobility Plan are intended to accommodate added demand, particularly in urban environments. While some dedication, easement, and sidewalk widening waivers of Mobility Plan requirements are being pursued (refer to Section 4A and Appendix C), with the existing sidewalk widths and presence of existing crosswalks at all study intersections, pedestrians have ample opportunities to safely cross City arterials without the need for illegal crossings.

# **Bicycle Facilities**

The intensified numbers of bicycle users are accommodated on-site through short- and long-term storage facilities, with direct access to public streets. Adjacent to the Project Site, bicycle lanes are provided along 7<sup>th</sup> Street, which has been designated as part of the BEN. Flower Street is designated as part of the BLN; however, there is currently no schedule for implementation of future bicycle improvements. Nonetheless, the Project would not preclude the City from future implementation of bicycle infrastructure adjacent to the Project Site.

# **Transit Facilities**

As detailed in Chapter 2, the Project Area is served by numerous established transit routes, including bus lines along Figueroa Street, Flower Street, Hope Street, Grand Avenue, and 5<sup>th</sup> Street operated by Metro, LADOT DASH, LADOT CE, Foothill Transit, AVTA, Santa Monica BBB, Torrance Transit, OCTA, and Montebello Bus Lines. The Project is located adjacent to the 7<sup>th</sup> Street/Metro Center Station with direct access through the pedestrian portal from the Project Site's plaza.

Metro, AVTA, and LADOT provide a bus stop on 8<sup>th</sup> Street at Flower Street serving Metro Local 66, AVTA 785, and LADOT CE Routes 431 and 437. Metro Local 51, LADOT CE 409, and LADOT DASH E provide a westbound stop at the northeast corner of Flower Street & 7<sup>th</sup> Street. Metro Express 460 and Silver Line, Torrance Transit Route 4X, OCTA 701, and LADOT CE 422, 423, 448, and 534 provide southbound stops at the southwest corner of Flower Street & 7<sup>th</sup> Street. LADOT DASH A and F provide southbound stops at the northwest corner of Flower Street & 7<sup>th</sup> Street.

Although the Project (and other Related Projects) will cumulatively add transit ridership, the Project Site and the Study Area are served by a vast amount of transit service, as detailed in Table 1. As shown in Tables 2A and 2B, the total residual capacity of the bus and rail lines within 0.25 miles walking distance of the Project Site during the morning and afternoon peak hours is approximately 34,342 and 28,884 riders, respectively. As shown in Table 4, the total Project trips during the morning and afternoon peak hour trips are projected at 92 and 117 vehicle trips, respectively. It should be noted that a percentage of vehicle-transit trips are inherent in the trip

generation rates of the residential component. Therefore, for the purposes of providing a more conservative analysis, all vehicle trips generated by the Project were converted into person-transit trips to determine if the entirety of the Project could be accommodated within the reserve capacity of the transit system. Based on the average vehicle occupancy factor of 1.55 for all trip purposes in Los Angeles County as identified in *SCAG Regional Travel Demand Model and 2012 Model Validation* (SCAG, March 2016), the total Project vehicle-transit trips correspond to 143 and 182 person-transit trips in the morning and afternoon peak hours, respectively. This equates to less than 1% of the total residual capacity of the transit lines within the Study Area during morning and afternoon peak. This result confirms that the adjacent transit capacity can easily accommodate the intensification of transit usage attributable to the Project without significantly absorbing excess capacity even when all vehicle trips are converted to transit trips.

## CONCLUSION

The Project would result in intensification of pedestrian, bicycle, and transit activity in the vicinity of the Project Site. However, given the Project Site's location adjacent to the 7<sup>th</sup> Street/Metro Center Station, which serves as a stop for numerous Metro rail lines as well as local and regional bus lines, and its proximity to commercial, entertainment, and employment centers and multiple pedestrian connections through the Project Site to public street, it is ideally located to encourage non-automobile trips to and from those destinations and reach additional public transit routes. The amount of additional pedestrian, bicycle, and transit activity generated by the Project would not strain the capacity of facilities and operations dedicated to those modes.

## **Section 5B**

# **Project Access, Safety, and Circulation Assessment**

This section summarizes the site access, safety, and circulation of the Project Site. It includes a quantitative evaluation of the Project's access and circulation operations, as well as the anticipated operational LOS at the Study Area intersections, and anticipated traffic gueues.

## **PROJECT ACCESS**

# **Vehicle Access and Internal Circulation**

As described in Chapter 1, vehicular access for the Project would be provided via existing driveways along Flower Street and 8<sup>th</sup> Street (which are both designated as Modified Avenue II) and Hope Street (which is a designated Avenue II). Service and truck access would be provided via the existing loading driveway located mid-block along 8<sup>th</sup> Street. The Project would provide internal drive aisles that would accommodate passenger vehicle and truck circulation.

The Project Site's existing driveways would be maintained, and no changes would be made with development of the Project. Access control equipment would continue to be located internal to the parking garage in accordance with City standards to allow adequate queue space between the gate and the public ROW. Access controls would be metered appropriately to limit delay at the driveways and reduce potential queue spillover into the public ROW. As shown on the most recent site plan, all driveways and both one-way and two-way circulation aisle widths of the parking areas allow for adequate and safe circulation of vehicles and trucks without significant conflicts, meeting the minimum dimensions as defined in *Manual of Policies and Procedures* (LADOT, 2020). The vehicular access points would be adequate to serve the demand of the Project and the existing hotel and commercial uses, and no significant internal congestion is anticipated that would affect traffic flow on adjacent public streets.

# **Pedestrians and Bicycles**

Pedestrian access to the Project Site would be provided via existing separate pedestrian entrances along 7<sup>th</sup> Street, Flower Street, and a relocated entrance along Hope Street, each of which would connect to walkways within the Project Site. Pedestrian access is provided directly into the new residential lobby and would also be provided along Hope Street. Residents and visitors arriving by bicycle would have the same access opportunities as pedestrian visitors.

None of the Project driveways (all of which are existing driveways that will remain) would cross any existing bicycle lanes or routes. Therefore, the driveways would not pose a safety hazard to bicyclists. The Project's existing driveways would continue to provide adequate sight distance and pedestrian refuge areas to limit potential vehicular-bicycle or vehicular-pedestrian conflicts. In order to facilitate bicycle use, short-term and long-term bicycle parking spaces would be provided.

## **OPERATIONAL EVALUATION**

As discussed above and noted in the TAG, a project's effect on automobile delay shall not constitute a significant environmental impact under CEQA. However, a qualitative evaluation of the Project's access and circulation operations (i.e., anticipated LOS of the Project area) was conducted for informational purposes in accordance with the TAG. Intersection operations were evaluated for typical weekday morning (7:00 AM to 10:00 AM) and afternoon (3:00 PM to 6:00 PM) peak periods. A total of four signalized intersections in the vicinity of the Project Site were selected for detailed transportation analysis and are shown in Figure 3.

The following traffic conditions were developed and analyzed as part of this study:

• <u>Existing with Project Conditions</u>: This analysis condition estimates the potential intersection operating conditions that could be expected if the Project were built under existing conditions.

<u>Future with Project Conditions (Year 2031)</u>: This analysis condition estimates the potential intersection operating conditions that could be expected if the Project were occupied in the projected buildout year. In this analysis, the Project-generated traffic is added to Future without Project Conditions (Year 2031).

# **Methodology**

In accordance with the TAG, the intersection delay and queue analyses for the operational evaluation were conducted using the Highway Capacity Manual (HCM) methodology, which was implemented using Synchro software with signal timing plans provided by the City to analyze intersection operating conditions. The HCM signalized methodology calculates the average delay, in seconds, for each vehicle passing through the intersections. Table 11 presents a description of the LOS categories, which range from excellent, nearly free-flow traffic at LOS A, to congested stop-and-go conditions at LOS F, for signalized intersections. The queue lengths were estimated using Synchro, which reports the 95<sup>th</sup> percentile queue length for each approach lane.

LOS and queuing worksheets for each scenario are provided in Appendix E.

# **Existing with Project Conditions**

<u>Traffic Volumes</u>. The morning and afternoon peak hour traffic volumes generated by the Project, as described in Chapter 3 and shown in Figure 16, were added to the Existing Conditions morning and afternoon peak hour traffic volumes shown in Figure 10. The resulting volumes are illustrated in Figure 17 and represent Existing with Project Conditions, assuming Project operation under Existing Conditions.

<u>Intersection LOS</u>. Table 12 summarizes the weekday morning and afternoon peak hour LOS results for the Study Area intersections under Existing Conditions and Existing with Project Conditions. As shown in Table 12, all four study intersections operate at LOS C or better during both the morning and afternoon peak hours.

# **Future with Project Conditions**

All future cumulative traffic growth (i.e., ambient and Related Project traffic growth) and transportation infrastructure improvements described in Chapter 2 are incorporated into this analysis.

<u>Traffic Volumes</u>. The morning and afternoon peak hour traffic volumes generated by the Project described in Chapter 3 and shown in Figure 16 were added to the Future without Project Conditions (Year 2031) morning and afternoon peak hour traffic volumes shown in Figure 13. The resulting volumes are illustrated in Figure 18 and represent Future with Project Conditions after development of the Project in Year 2031.

Intersection LOS. Table 13 summarizes the results of the Future without Project Conditions (Year 2031) and Future with Project Conditions (Year 2031) during the weekday morning and afternoon peak hours for the Study Area intersections. As shown in Table 13, one of the four study intersections operates at LOS C or better during both the morning and afternoon peak hours under Future without Project Conditions and Future with Project Conditions. The remaining three study intersections would operate at LOS C during the weekday morning peak hour and at LOS E or F during the weekday afternoon peak hour under both Future without Project Conditions and Future with Project Conditions.

#### INTERSECTION QUEUING ANALYSIS

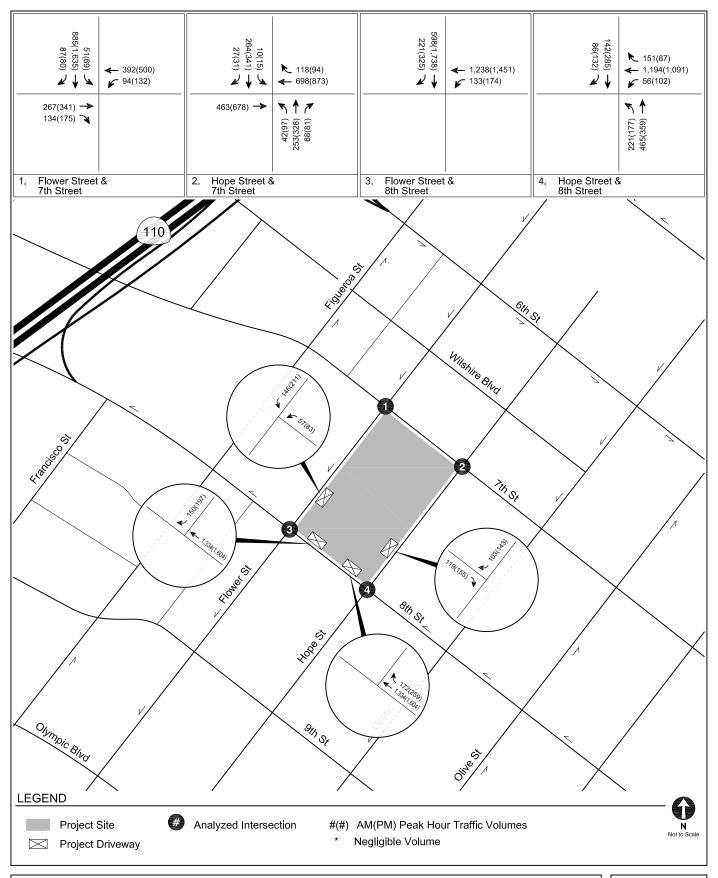
The study intersections and Project driveways were analyzed to determine whether the Project would cause vehicle queues to extend beyond the available storage lengths.

The queue lengths were estimated using Synchro software, which reports the 95<sup>th</sup> percentile queue length in vehicle length that can be multiplied by 25 feet to represent the average length of a vehicle. The reported queues are calculated using the HCM signalized intersection methodology. As detailed in Appendix E, the Project would not cause or substantially extend queuing at any of the four study intersections.

As previously discussed, the Project's internal circulation design and access provisions would not cause vehicle queues to extend beyond the driveways into the adjacent street system.

Detailed queuing analysis worksheets are provided in Appendix E.

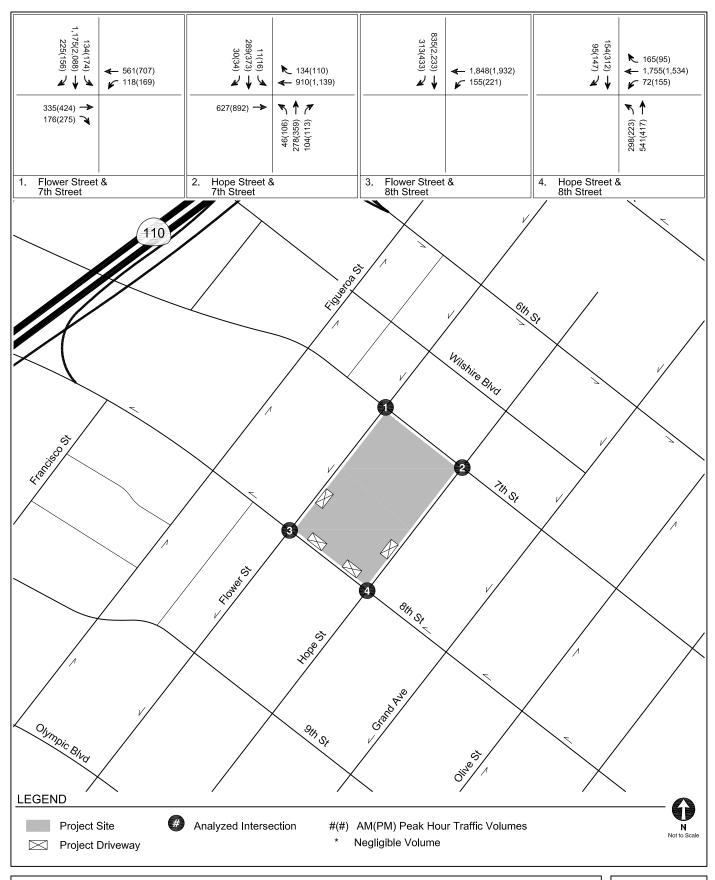




EXISTING WITH PROJECT CONDITIONS (YEAR 2022) PEAK HOUR TRAFFIC VOLUMES

FIGURE 17





FUTURE WITH PROJECT CONDITIONS (YEAR 2031)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 18

## TABLE 11 INTERSECTION LEVEL OF SERVICE

		Delay [a]
Level of Service	Description	Signalized Intersections
А	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.	≤ 10
В	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.	> 10 and ≤ 20
С	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.	> 20 and ≤ 35
D	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.	> 35 and ≤ 55
E	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.	> 55 and ≤ 80
F	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.	> 80

#### Notes:

Source: Highway Capacity Manual, 6th Edition (Transportation Research Board, 2016).

[a] Measured in seconds.

# TABLE 12 EXISTING WITH PROJECT CONDITIONS (YEAR 2022) INTERSECTION LEVELS OF SERVICE ANALYSIS

No	Intersection	Peak Hour	Exis	sting	Existing with Project		
		Peak Hour	Delay	LOS	Delay	LOS	
1.	Flower Street &	AM	20.6	C	20.6	C	
	7th Street	PM	27.1	C	28.0	C	
2.	Hope Street &	AM	19.7	B	19.7	B	
	7th Street	PM	30.2	C	30.9	C	
3.	Flower Street &	AM	20.8	C	20.9	C	
	8th Street	PM	25.8	C	26.4	C	
4.	Hope Street &	AM	22.4	C	22.9	C	
	8th Street	PM	19.6	B	20.3	C	

#### Notes:

Delay is measured in seconds per vehicle

LOS = Level of service

Results per Synchro 11 (HCM methodology)

TABLE 13
FUTURE WITH PROJECT CONDITIONS (YEAR 2031)
INTERSECTION LEVELS OF SERVICE ANALYSIS

No	Intersection	Peak Hour	Future with	out Project	Future with Project		
		reak noui	Delay	LOS	Delay	LOS	
1.	Flower Street &	AM	26.5	C	26.6	C	
	7th Street	PM	83.6	F	90.8	F	
2.	Hope Street &	AM	27.5	C	27.7	C	
	7th Street	PM	69.9	E	71.1	E	
3.	Flower Street &	AM	23.8	C	23.7	C	
	8th Street	PM	63.9	E	66.9	E	
4.	Hope Street & 8th Street	AM PM	28.2 23.5	CC	34.7 25.2	C C	

#### Notes:

Delay is measured in seconds per vehicle

LOS = Level of service

Results per Synchro 11 (HCM methodology)

#### **Section 5C**

#### **Residential Street Cut-Through Analysis**

This section summarizes the residential street cut-through analysis for the Project. The residential street cut-through analysis determines potential increases in average daily traffic volumes on designated Local Streets, as classified in the Mobility Plan, that can be identified as cut-through trips generated by the Project and that can adversely affect the character and function of those streets.

Section 3.5.2 of the TAG provides a list of questions to assess whether the Project would negatively affect residential streets. However, the Project is not projected to lead to trip diversion along residential Local Streets, nor would the Project add a substantial amount of automobile traffic to congested Arterial Streets that could potentially cause a shift to residential Local Streets, as the surrounding area uses mainly consist of commercial uses. Thus, the Project is not required to conduct a Local Residential Street Cut-Through Analysis.

#### **Section 5D**

#### **Project Construction Assessment**

This section summarizes the construction schedule and construction analysis for the Project. The construction analysis relates to the temporary effects that may result from the construction activities associated with the Project and was conducted in accordance with Section 3.4 of the TAG.

#### **CONSTRUCTION EVALUATION CRITERIA**

Section 3.4.3 of the TAG identifies the following three types of in-street construction constraints that require further analysis to assess the effects of Project construction on the existing pedestrian, bicycle, transit, or vehicle circulation.

- 1. Temporary transportation constraints potential effects on the transportation system
- 2. Temporary loss of access potential effects on visitors entering and leaving sites
- 3. Temporary loss of bus stops or rerouting of bus lines potential effects on bus travelers

The factors to be considered include the magnitude and duration of the temporary loss of access and transportation facilities, the potential inconvenience caused to users of the transportation system, and consideration for public safety. Construction activities could potentially interfere with pedestrian, bicycle, transit, or vehicle circulation and accessibility to adjoining areas. As detailed in Section 3.4.4 of the TAG, the proposed construction plans should be reviewed to determine whether construction activities would require any of the following actions within the public ROW:

- Street, sidewalk, or lane closures
- Blockage of existing vehicle, bicycle, or pedestrian access along a street or to parcels fronting the street
- Modification of access to transit stations, stops, or facilities during revenue hours

- Closure or movement of an existing bus stop or rerouting of an existing bus line
- Creation of transportation hazards

#### PROJECT CONSTRUCTION DETAILS

#### Schedule

The Project is anticipated to be constructed over a period of approximately 48 months, with an anticipated completion date in Year 2031. Typical construction activity would occur between the hours of 7:00 AM and 3:30 PM on weekdays and 8:00 AM and 6:00 PM on Saturdays, in conformance with the City's construction hour restrictions. Construction would not occur on Sundays or federal holidays, though construction-related street closures may remain in place even on days construction does not occur.

#### Effects on Access, Transit, and Parking

All construction activities would be primarily contained within the Project Site boundaries; however, it is expected, in connection with the new building, that construction fences may encroach into the public ROW (e.g., sidewalks and roadways) and the adjacent sidewalk, parking/right-turn lane, and one southbound travel lane on Hope Street would temporarily be utilized as a staging area for construction equipment adjacent to the Project Site. Temporary traffic controls would be provided to direct traffic and/or pedestrians safely around any closures, as required in the Construction Management Plan, summarized later in this Chapter. Public ROW would be maintained along the Flower Street, 7<sup>th</sup> Street, and 8<sup>th</sup> Street Project frontages throughout the construction period and emergency access would not be impeded.

#### **Construction Traffic**

Project construction would result in truck traffic (haul trucks, delivery trucks, cement trucks) and worker traffic to and from the Project Site on a daily basis.

Construction delivery trucks would generally enter the construction staging areas along Hope Street. Haul trucks carrying dirt or debris would occur regularly throughout the workday but can be scheduled to travel to and from the Project Site during off-peak hours as necessary. Like haul trucks, trucks delivering materials and equipment can be scheduled to arrive at the Project Site during off-peak hours.

Construction workers typically arrive at the Project Site before 7:00 AM and depart by 3:00 PM, outside of the morning and afternoon peak hours. During construction, parking for construction workers will be provided on-site at the existing parking garage or in an off-site parking facility.

#### **EFFECTS OF PROJECT CONSTRUCTION**

The severity of the Project's effects on access, transit, and parking during construction, as well as the effects of construction traffic, was assessed. The measures proposed below to minimize the negative effects of Project construction associated with the new building would be incorporated into a Construction Management Plan, summarized at the end of this chapter.

#### **On-Street Parking**

Parking lanes adjacent to the Project frontage along Flower Street would be maintained throughout the construction period. On-street parking is not provided on Hope Street or 8<sup>th</sup> Street along the Project frontage. Therefore, Project construction would not affect on-street parking.

#### **Public Transit**

The existing bus stop adjacent to the Project Site along 8<sup>th</sup> Street at Flower Street that serves Metro Local 66, AVTA 785, and LADOT CE Routes 431 and 437 would be maintained during construction. No existing bus stops are located along Hope Street, Flower Street, or 7<sup>th</sup> Street adjacent to the Project Site; therefore, transit operations would not be affected.

#### **Access**

Construction activities are expected to be primarily contained within the Project Site boundary; however, in connection with construction of the new building, encroachment on the public ROW (e.g., sidewalks and roadways) adjacent to the Project Site along Hope Street is expected to occur. The sidewalk, parking/right-turn lane, and one southbound travel lane on Hope Street would temporarily be utilized as a staging area for construction equipment adjacent to the Project Site for the duration of construction. Temporary traffic controls would be provided to direct traffic and/or pedestrians safely around any closures, as required in the Construction Management Plan, including pedestrian safety features such as covered protection. Public ROW would be maintained along the Flower Street, 7<sup>th</sup> Street, and 8<sup>th</sup> Street Project frontages throughout the construction period and emergency access would not be impeded.

The lane closures along Hope Street adjacent to the Project Site would affect the southbound approach lanes at Hope Street & 8<sup>th</sup> Street (Intersection #4). The lane closures along Hope Street were analyzed under Existing Conditions. As detailed in Appendix F, Project construction activities would not result in operational constraints at that intersection.

#### **Construction Traffic**

Project construction would result in varying levels of truck and worker traffic to and from the Project Site on a daily basis, including an estimated maximum of approximately 350 truck trips during the foundation (mat pour) phase and 250 worker trips during the interior buildout phase. However, nearly all of this traffic would occur outside of the peak hours, as described above. Additionally, the Construction Management Plan would include measures to limit the amount of construction-related traffic during the peak hours.

#### CONSTRUCTION MANAGEMENT PLAN

A detailed Construction Management Plan, including haul routes and a staging plan, would be prepared and submitted to the City for review and approval, prior to commencing construction for the new building. The Construction Management Plan would formalize how construction would be

carried out and identify specific actions that would be required to reduce effects on the surrounding community. The Construction Management Plan shall be based on the nature and timing of the specific construction activities and other projects in the vicinity of the Project Site, and shall include, but not be limited to, the following elements, as appropriate:

- Advance, bilingual notification of adjacent property owners and occupants of upcoming construction activities, including durations and daily hours of operation
- Prohibition of construction worker parking on adjacent streets
- A Traffic Control Plan formalizing the planning and scheduling of construction activities
  and identifying specific actions that would be undertaken to facilitate the flow of traffic on
  surrounding streets during construction. The Traffic Control Plan will be submitted to
  LADOT for review and approval prior to the issuance of demolition and grading permits
  for the new building.
- Scheduling of construction activities to reduce the effect on traffic flow on surrounding Arterial Streets
- Containment of construction activity within the Project Site boundaries
- Implementation of safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers
- Scheduling of construction-related deliveries, haul trips, etc., to occur outside the commuter peak hours to the extent feasible
- Spacing of trucks so as to discourage a convoy effect
- Sufficient dampening of the construction area to control dust caused by grading and hauling and reasonable control at all times of dust caused by wind
- Maintenance of a log, available on the job site at all times, documenting the dates of hauling and the number of trips (i.e., trucks) per day
- Identification of a construction manager and provision of a telephone number for any
  inquiries or complaints from residents regarding construction activities posted at the site
  readily visible to any interested party during site preparation, grading, and construction

It is likely that Construction Management Plans of the Related Projects would also be submitted for approval to the City prior to the start of construction activities for the new building. As part of the LADOT and/or Los Angeles Department of Building and Safety-established review process of Construction Management Plans, potential overlapping construction activities and proposed haul routes would be reviewed to minimize the impacts of cumulative construction activities on any particular roadway.

#### Chapter 6

### **Summary and Conclusions**

This study was undertaken to analyze the potential transportation impacts of The Bloc Residential Tower and Signage SUD Project on the transportation system. The following summarizes the results of this analysis:

- The Project proposes a residential development consisting of 466 multi-family high-rise units within a 53-story high-rise tower located within and above the existing podium building. Existing commercial and hotel uses will be retained, except for approximately 24,342 sf of existing retail and theater uses that would be replaced with the development of the residential uses. The Project is anticipated to be completed by Year 2031.
- Vehicular access to the Project Site would be unchanged by the Project. Access would continue to be provided via existing driveways along Flower Street, 8<sup>th</sup> Street, and Hope Street, with service and truck access along 8<sup>th</sup> Street. No unusual safety concerns were identified, and queuing is not anticipated to adversely affect City arterials.
- The Project would not conflict with the adopted City plans, programs, ordinances, and policies and would not generate significant VMT impacts nor geometric design hazard impacts.
- After application of appropriate trip reductions, the Project is estimated to generate 92 net new morning peak hour trips and 117 net new afternoon peak hour trips.
- The Project provides adequate internal circulation to accommodate vehicular, pedestrian, and bicycle traffic without impeding through traffic movements on City streets.
- The Project would incorporate pedestrian and bicycle-friendly designs, such as bicycle parking, enhanced pedestrian access, and residential open space.
- All construction activities would occur outside of the commuter morning and afternoon peak
  hours to the extent feasible. The anticipated construction-related encroachments into the
  public ROW along Hope Street adjacent to the Project Site would not result in operational
  constraints to the adjacent roadway system. A Construction Management Plan would
  minimize operational effects of construction activities.

#### References

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

2012 Developer Fee Justification Study, Los Angeles Unified School District, 2012.

Central City Community Plan, Los Angeles Department of City Planning, Updated September 2016.

CEQA Guidelines, California Code of Regulations, Title 14, Section 15000 and following.

City of Los Angeles VMT Calculator Documentation, Los Angeles Department of Transportation and Los Angeles Department of City Planning, May 2020.

City of Los Angeles VMT Calculator Version 1.3, Los Angeles Department of Transportation, July 2020.

Citywide Design Guidelines, Los Angeles City Planning Urban Design Studio, October 2019.

Connect SoCal – The 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy, Southern California Association of Governments, Adopted September 2020.

Draft Downtown Los Angeles Community Plan, Los Angeles Department of City Planning, 2023.

*Interim Guidance for Freeway Safety Analysis,* Los Angeles Department of Transportation, May 1, 2020.

Los Angeles Municipal Code, City of Los Angeles.

Manual of Policies and Procedures, Los Angeles Department of Transportation, 2020,

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

Plan for a Healthy Los Angeles: A Health and Wellness Element of the General Plan, Los Angeles Department of City Planning, March 2015.

Quantifying Greenhouse Gas Mitigation Measures, California Air Pollution Control Officers Association, 2010.

SCAG Regional Travel Demand Model and 2012 Model Validation, Southern California Association of Governments, March 2016.

## References, cont.

State of California Senate Bill 743, Steinberg, 2013.

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

Transportation Assessment Guidelines, Los Angeles Department of Transportation, August 2022.

*Trip Generation Manual, 9th Edition,* Institute of Transportation Engineers, 2012.

Trip Generation Manual, 11th Edition, Institute of Transportation Engineers, 2021.

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

# Appendix A Memorandum of Understanding



### **Transportation Assessment Memorandum of Understanding (MOU)**

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

I. PROJECT II	NFORMATION						
Project Name: The	Bloc Residenti	al ¯	Γower and Signag	e SUD Pr	oje	ect	
Project Address: 70	0 S Flower St, 70	0 V	√ 7th St, 711 S Hope	St, and 77	5 S	S Hope St, Los Angeles,	CA 90017
Project Description:	The Project proposes enclos and a 41-story high-rise resignation	sing th	e existing rooftop parking level of the	ne existing 9-story pos s atop the expanded	odium I podi	n and the construction of two new enclosed ium building. Existing commercial and hote	parking levels
	y 24,342 sf of existing retail an	d thea	ater uses that would be replaced to			ntial uses of the Project. Vehicular access v	
				ite Plan atta	che	ed? (Required) ■ Yes □ No	
II. TRANSPOR	RTATION DEMAN	ID I	MANAGEMENT (TD	M) MEASU	RE	S	
Select any of the fol considered for this p	-	ure	s, which may be eligil	ole as a Proj	ect	Design Feature <sup>1</sup> , that are	being
✓ Reduced Parkir	ng Supply <sup>2</sup>	✓	Bicycle Parking and An	nenities		Parking Cash Out	
staff will make the f  1 Unbundled F  2 3  III. TRIP GENE	inal determination Residential Par	n of kin	the TDM measure's 6  9 4  6	eligibility for	thi		
Trip Generation Rat	e(s) Source: ITE 10	th I	Edition / Other LAD	OT TAG /	ITE	E 11th Edition	
	Trip Generation	Adj		Yes		No	
Transit Usa	ge			<b>7</b>			
Existing Act	ive or Previous Land	l Us	e	7			1
Internal Tri	0					Ø	1
Pass-By Trip	)					Ø	
Transportat	ion Demand Manag	em	ent (See above)	<b>V</b>			
						d uses, rates, estimated mached? (Required) ■ Yes	

NET Daily Vehicle Trips (DVT)

<sup>&</sup>lt;sup>1</sup> At this time Project Design Features are only those measures that are also shown to be needed to comply with a local ordinance, affordable housing incentive program, or State law.

<sup>&</sup>lt;sup>2</sup>Select if reduced parking supply is pursued as a result of a parking incentive as permitted by the City's Bicycle Parking Ordinance, State Density Bonus Law, or the City's Transit Oriented Community Guidelines.





IV.	STUDY AREA AND ASSU	<b>JMPTIONS</b>	
Projec	t Buildout Year: 2031	Ambient Growth Rate: 1.0	O% Per Yr.
Relate	ed Projects List, researched b	by the consultant and appro	ved by LADOT, attached? (Required) ■ Yes □ No
	INTERSECTIONS and/or STI Se subject to LADOT revision aft	REET SEGMENTS: ter access, safety, and circulati	on evaluation.)
1 F	lower St. & 7th St.	,	Hope St. & 8th St.
<sub>2</sub> H	lope St. & 7th St.		
<sub>3</sub> F	lower St. & 8th St.		
Prov	ride a separate list if more th	han six study intersections a	nd/or street segments.
Is this	Project located on a street v	within the High Injury Netwo	ork? ■ Yes □ No
	udy intersection is located w nunicipality is required prior	•	t municipality's jurisdiction, signature approval from
٧.	ACCESS ASSESSMENT		
a. b. c.	Is the project's frontage 2 General Plan? ■ Yes □ N	No ontage encompassing an en	or an Avenue or Boulevard as classified by the City's tire block along an Avenue or Boulevard as classified

#### VI. ACCESS ASSESSMENT CRITERIA

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

#### VII. SITE PLAN AND MAP OF STUDY AREA

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

Does the attached site plan and/or map of study area show	Yes	No	Not Applicable
Each study intersection and/or street segment	✓		
*Project Vehicle Peak Hour trips at each study intersection	<b></b>		
*Project Vehicle Peak Hour trips at each project access point	<b></b>		
*Project trip distribution percentages at each study intersection	✓		
Project driveways designed per LADOT MPP 321 (show widths and directions or lane assignment)	☑		
Pedestrian access points and any pedestrian paths	Ø		
Pedestrian loading zones	<b>7</b>		
Delivery loading zone or area	<b>V</b>		
Bicycle parking onsite	<b></b>		
Bicycle parking offsite (in public right-of-way)			<b>V</b>

<sup>\*</sup>For mixed-use projects, also show the project trips and project trip distribution by <u>land use category</u>.



City of Los Angeles Transportation Assessment MOU LADOT Project Case No: \_\_\_\_\_

#### VIII. FREEWAY SAFETY ANALYSIS SCREENING

Will the project add 25 or more trips to any freeway off-ramp in either the AM or PM peak hour? 

YES 
No

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

#### IX. CONTACT INFORMATION

Name: Gibson Transportation Consulting, Inc.				DEVELOPER NREA-TRC 700 LLC			
Address:	555	W. 5th Street, Suite 3375, Los A	Angeles, CA 90013	700 S. Flower Street, Suite 450, Los Angeles, CA 90017			
Phone Nu	umber: (213) 683-0088			(650) 575-9904			
E-Mail:	Imullarkay williama@aibaantrana.com			phudnut@natadvisc	ors.com		
					1		
Approved b	р <b>у</b> : χ	Javeen Mullochy Wellian's Consultant's Representative	1/31/22 Date	X LADOT Representative	2/4/22 **Date		
Adjacent Municipality	y:		Approved by:	Representative	 Date		

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

#### **Attachment C.1: Access Assessment Criteria**



#### **Access Assessment Criteria**

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

	NFORMATION		
Project Name: The I	Bloc Residential Tower and Signage SUD P	roject	
, <u></u>	S Flower St, 700 W 7th St, 711 S Hope St, and 7		
Project Description:_	ne Project proposes enclosing the existing rooftop parking level of the existing 9-story podium and the construction of dwelling units atop the expanded podium building. Existing commercial and hotel uses will be existing retail and theater uses that would be replaced to accommodate the residential uses of the Project. Vehicula		
LADOT Project Case N	Number:		
II. PEDESTRIAN/	PERSON TRIP GENERATION		
Source of Pedestrian,	/Person Trip Generation Rate(s)? ☐ VMT Calculator	☐ ITE 10 <sup>th</sup> Ed	dition
	Land Use	Size/Unit	Daily Person Trips
	To be provided.		
Proposed			
	7		
	ip generation table including a description of the promparison studies used for reference, etc. attached?	·	es, trip credits, person
III. PEDESTRIA	N ATTRACTORS INVENTORY		
Attach Pedestrian Ma	ap for the area (1,320 foot radius from edge of the p	roject site) dep	icting:
• site pedestria	an entrance(s)		
	oposed passenger loading zones eneration/distribution values		
o Geog	graphic Distribution: N $\frac{30}{30}$ % S $\frac{30}{30}$ % E $\frac{20}{30}$ %	<sub>6 W</sub> 20 %	

•Ā transit boarding and alighting of transit stops (should include Metro rail stations; Metro, DASH, and



other municipal bus stops)

- Key pedestrian destinations with hours of operation:
  - schools (school times)
  - o government offices with a public counter or meeting room
  - o senior citizen centers
  - o recreation centers or playgrounds
  - o public libraries
  - medical centers or clinics
  - o child care facilities
  - o post offices
  - o places of worship
  - o grocery stores
  - o other facilities that attract pedestrian trips
- pedestrian walking routes to key destinations from project site

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

#### IV. FACILITIES INVENTORY

Is a High Injury Network street located within 1,320 foot	radius from the	edge of the project site? $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$
If yes, list streets and include distance from the project:		
See Table 4	at	(feet)
	at	(feet)
	at	(feet)
	at	(feet)
Attach Padius Man for the area (1 220 foot radius from o	dgo of the proje	ect cital denicting the following existing

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

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

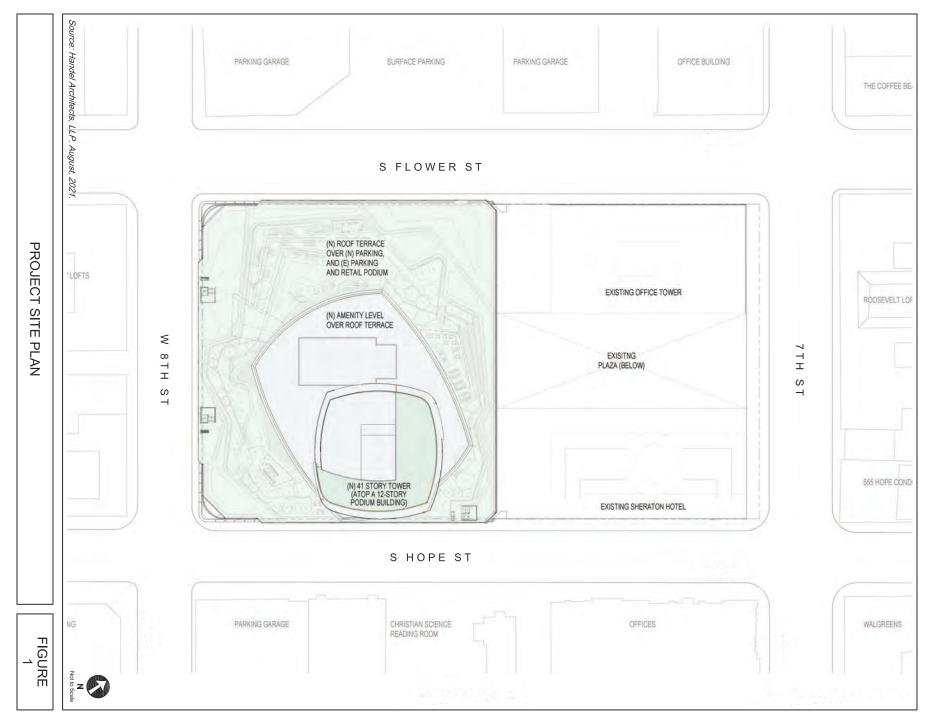
For a reference of planned facilities, see the <u>Transportation Assessment Support Map</u>



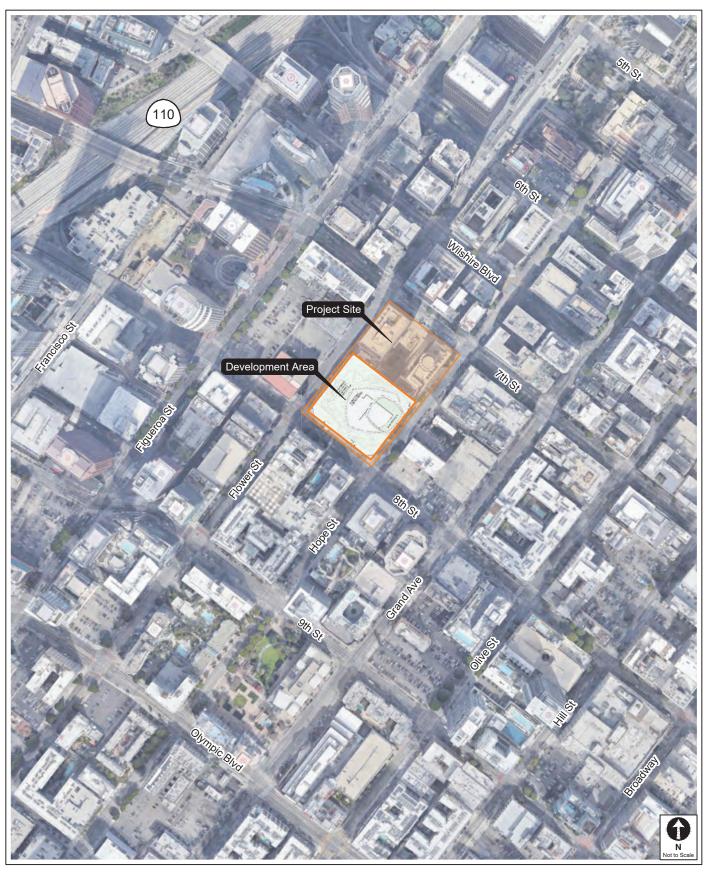
#### **Crossing Distances**

	I street (designated as either an Avenue or Boulevard?)
✓ Yes □ No	
If yes, provide the distance between the crossing control block crossing) along any arterial within 1,320 feet of the $(feet)$ at $See\ Table\ 5$	
(feet) at	(feet) at
V. Project Construction  Will the project require any construction activity within t	he city right-of-way?
will the project require any construction activity within t	The city right of way:
If yes, will the project require temporary closure of any c	of the following city facilities?









PROJECT SITE LOCATION

FIGURE 2



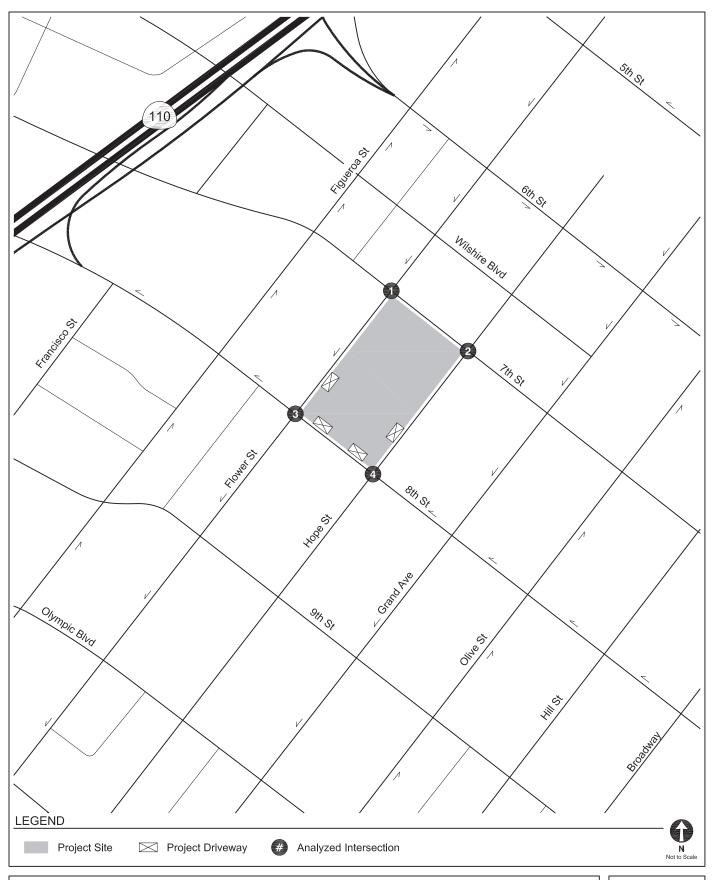


TABLE 1
PROJECT VEHICLE TRIP GENERATION ESTIMATES

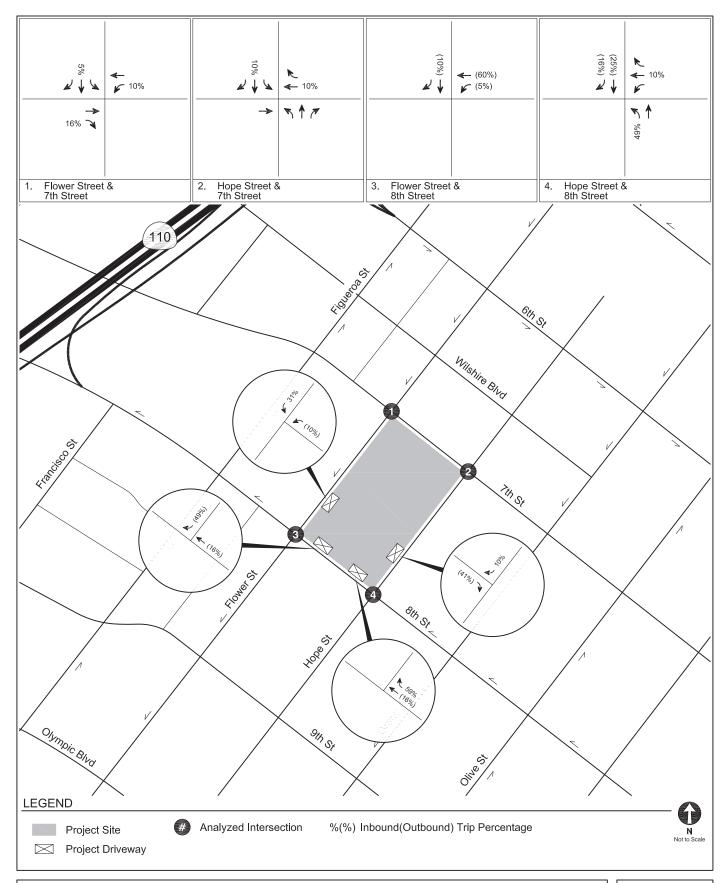
Land Use	Land	Rate   In	Morr	ning Peak	Hour	Afternoon Peak Hour			
Land Use	Use		Out	Total	In	Out	Total		
<u>Trip Generation Rates</u> [a]									
Multifamily Housing (High-Rise)	[b]	per du	24%	76%	0.23	61%	39%	0.30	
Shopping Center (>150k) [c]	820	per ksf	62%	38%	0.84	48%	52%	1.26	
Proposed Project  Multifamily Housing (High-Rise)	[b]	466 du	26	81	107	85	55	140	
Existing Uses to be Removed [d]  Shopping Center (>150k) [c]  Transit/Walk Adjustment - 25% [e]	820	24.342 ksf	12 <i>(</i> 3)	8 <i>(</i> 2 <i>)</i>	20 (5)	15 <i>(4)</i>	16 <i>(4)</i>	31 <i>(8)</i>	
TOTAL NEW PROJECT TRIPS			17	75	92	74	43	117	

#### Notes:

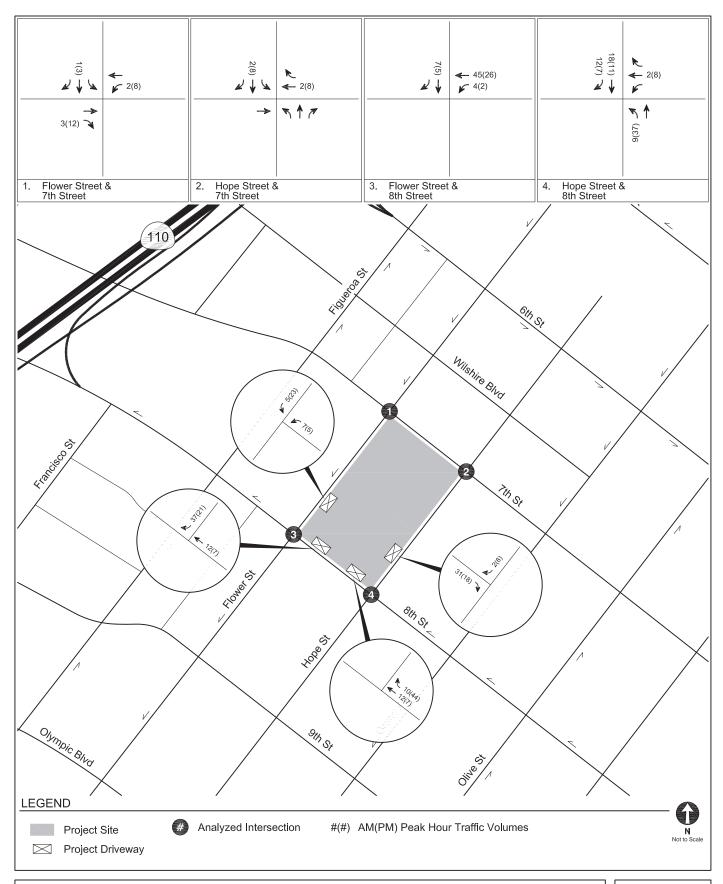
du: dwelling unit ksf: 1,000 square feet

- [a] Source: Transportation Assessment Guidelines (TAG), Los Angeles Department of Transportation (LADOT), July 2020 and Trip Generation Manual, 11th Edition, Institute of Transportation Engineers (ITE), 2021.
- [b] Per LADOT's *TAG*, mid-rise and high-rise multifamily uses in dense multi-use urban areas are eligible to use a City specific trip generation rate based on vehicle trip count data collected at market-rate residential properties in the City of Los Angeles. Empirical trip rates account for transit usage/walk-in trips. Therefore, no additional trip reductions were applied.
- [c] The 24,343 sf of retail and theater uses to be replaced by residential uses to accommodate the development of the Project are part of the existing shopping center component of The Bloc. Therefore, the trip generation rates for Shopping Center (>150k) were utilized.
- [d] The existing uses at the Project Site would be maintained (including hotel, office, etc.) except for the 23,888 sf retail and 454 sf theater uses that would be replaced by residential uses to accommodate the Project.
- [e] The Project Site is located adjacent to the 7th Street/Metro Center Station which serves Metro Rail B, D, A, E, and J Lines and will provide service to the future Metro Regional Connector, and a portal to this station is located on the Project Site; therefore, a 25% transit adjustment was applied to account for transit usage and walking visitor arrivals.











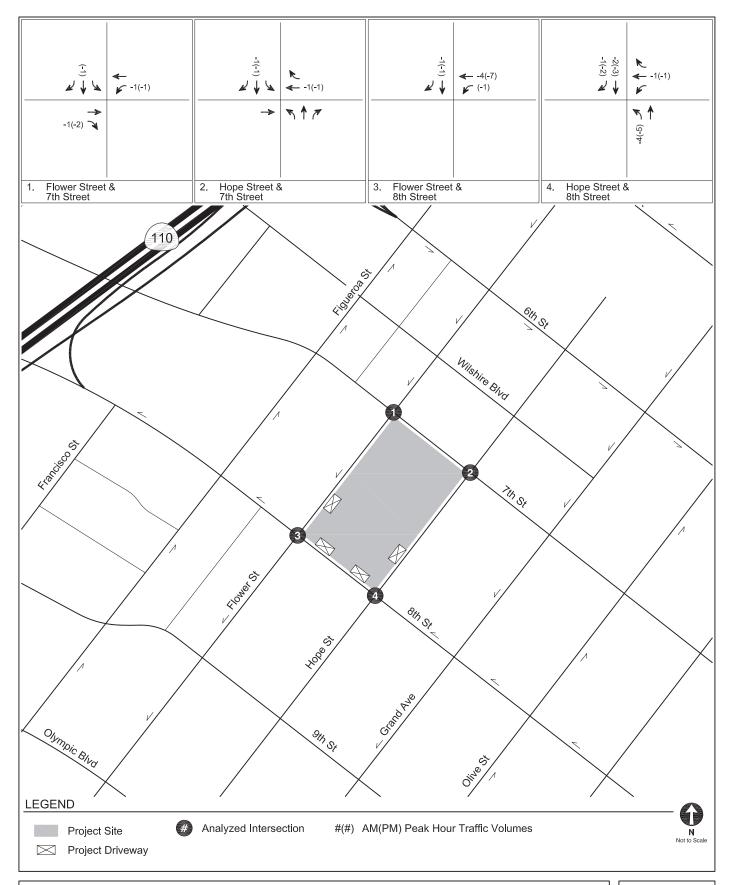


TABLE 2 RELATED PROJECTS LIST

				Trip Generation [a]							
No.	Project	Address	Use	Daily	Mo In	rning Peak F	lour Total	Afte In	ernoon Peak Out	Hour Total	
1.	Mitsui Fudosan (Eighth and Figueroa Tower)	744 S Figueroa St	436 apartment units, 3,750 sf restaurant, and 3,750 sf retail	2,644	37	146	183	158	86	244	
2.	945 W 8th Street	945 W 8th St	781 apartment units and 6,700 sf commercial	2,869	63	146	209	144	91	235	
3.	8th/Grand/Hope Project	754 S Hope St	409 condominium units and 7,329 sf retail	2,315	35	137	172	137	78	215	
4.	Embassy Tower	848 S Grand Ave	420 condominium units and 38,500 sf retail	3,882	66	144	210	212	165	377	
5.	Mixed-Use	840 S Olive St	303 condominium units and 9,680 sf restaurant	3,071	81	166	247	174	96	270	
6.	845 Olive & 842 Grand Mixed-Use	845 S Olive St	208 apartment units and 2,430 sf retail	1,305	25	76	101	77	42	119	
7.	1018 W Ingraham St	1018 W Ingraham St	43 apartment units and 7,400 sf retail	602	8	21	29	31	23	54	
8.	949 S Hope Street Mixed-Use Development	949 S Hope St	236 apartment units and 5,954 sf retail	791	8	45	53	43	7	50	
9.	Metropolis Mixed-Use	899 S Francisco St	836 condominium units, 480 hotel rooms, 988,225 sf office, and 46,000 sf retail	8,010	307	318	625	387	512	899	
10.	Hotel & Apartments	675 S Bixel St	422 apartment units, 126 hotel rooms, and 4,874 sf retail	3,461	74	173	247	184	116	300	
11.	Alexan South Broadway	850 S Hill St	305 apartment units, 3,500 sf retail, and 3,500 sf restaurant	1,998	29	108	137	117	67	184	
12.	Olympic Tower	813 W Olympic Blvd	374 condominium units, 373 hotel rooms, 33,498 sf office, 65,074 sf retail, and 10,801 sf conference center	4,423	166	170	336	189	185	374	
13.	Downtown LA Hotel	926 James M Wood Blvd	247 hotel rooms	1,592	59	42	101	59	56	115	
14.	Hill Street Mixed-Use	920 S Hill St	239 apartment units and 5,400 sf retail	1,476	23	84	107	87	50	137	
15.	5th & Hill	323 W 5th St	190 room hotel, 6,100 sf meeting room, 31 apartment units, and 29,200 sf restaurant	2,809	73	49	122	126	100	226	
16.	Mixed-Use	1150 W Wilshire Blvd	140 condominium units and 9,115 sf of commercial space	962	(17)	47	30	61	9	70	
17.	Spring St Hotel	633 S Spring St	176 hotel rooms, 5,290 sf bar, and 8,430 sf restaurant	2,045	83	33	116	97	99	196	
18.	Mixed-Use	1145 W 7th St	241 condominium units and 7,291 sf retail	1,084	4	66	70	67	35	102	
19.	Sapphire Mixed-Use (Revised)	1111 W 6th St	362 apartment units and 25,805 sf retail	587	(71)	117	46	104	(51)	53	
20.	940 S Hill Mixed-Use	940 S Hill St	232 apartment units and 14,000 sf retail	1,881	20	80	100	115	53	168	
21.	Restaurant	1036 S Grand Ave	7,149 sf restaurant	492	2	3	5	27	14	41	
22.	Broadway Mixed-Use	955 S Broadway	163 apartment units and 6,406 sf retail	1,275	21	72	93	74	43	117	

Notes:

[a] Related project information provided by the Los Angeles Department of Transportation in December 2021, Department of City Planning, and recent traffic studies prepared in the area. This list includes known development projects within one-half mile (2,460 foot) radius of the Project Site.

#### TABLE 2 CONT. RELATED PROJECTS LIST

				Trip Generation [a]						
No.	Project	Address	Use	Daily	Mo In	rning Peak H	our Total	Afte In	rnoon Peak Out	Hour Total
23.	Apartments	1218 W Ingraham St	80 apartment units	532	8	33	41	33	17	50
24.	Fig Central	1101 S Flower St	504 condominium units, 183 hotel rooms, and 166,000 sf retail	11,512	190	282	472	527	461	988
25.	Olympia Mixed-Use	1001 Olympic Blvd	879 apartment units, 1,000 hotel rooms, 20,000 sf retail, and 20,000 sf restaurant	10,418	320	388	708	455	309	764
26.	Angels Landing Mixed-Use	332 S Olive St	432 residential units, 515 hotel rooms, 72,090 sf commercial	5,410	184	214	398	347	238	585
27.	Mixed-Use	601 S Main St	452 apartment units and 25,000 sf retail	2,686	36	144	179	152	87	238
28.	1045 S Olive Street	1045 S Olive St	800 condominium units and 15,000 sf retail	5,289	69	297	366	306	166	472
29.	Olympic & Hill Mixed Use	1030 S Hill St	700 apartment units, 7,000 sf retail, 7,000 sf restaurant	3,392	49	193	242	181	104	285
30.	Equity Residential Mixed-Use	340 S Hill St	406 apartment units, 22 affordable units, 2,980 sf office, and 2,630 sf retail	2,253	36	129	165	133	75	208
31.	Mixed-Use (Lifan Tower)	1235 W 7th St	303 apartment units and 5,960 sf retail	1,725	23	95	118	100	54	154
32.	Mixed-Use	400 S Broadway	450 apartment units, 6,904 sf retail, and 5,000 sf bar	3,292	50	187	237	193	112	305
33.	Residential	1322 W Maryland St	62 apartment units	259	5	13	18	13	8	21
34.	Amacon Project	1133 S Hope St	208 condominium units and 5,029 sf retail	1,543	20	74	94	91	50	141
35.	Condominiums	742 S Hartford Ave	42 condominium units	333	5	21	26	20	11	31
36.	Apartments	740 S Hartford Ave	80 apartment units	479	7	30	37	29	15	45
37.	Mixed-Use	755 S Los Angeles St	60,243 sf office, 16,694 sf retail, and 26,959 sf restaurant	2,482	110	57	167	105	100	205
38.	11th & Hill Project	1115 S Hill St	172 condominium units and 6,850 sf restaurant	543	(45)	40	(5)	50	(7)	43
39.	Hotel/Restaurant	1099 S Grand Ave	160 hotel rooms and ground floor restaurant	1,137	37	26	63	42	40	82
40.	Hotel/Retail	1130 S Hope St	144 hotel rooms and 378 sf retail	1,029	34	24	58	37	36	73
41.	Ethos Societe	806 S Garland Ave	120 apartment units, 33,703 sf office, 10,049 sf day care center, and 6,906 sf retail	12,105	73	61	134	67	87	154
42.	Variety Arts (Mixed-Use)	940 S Figueroa St	10,056 sf restaurant, 5,119 sf bar, and 3,295 sf office	2,237	5	4	9	99	35	134
43.	Residential	350 S Figueroa St	570 apartment units	965	4	101	105	72	23	95
44.	Mack Urban (Site 2 & 3)	1105 S Olive St	Site 2: 537 apartment units, 3,800 sf restaurant, and 3,800 sf retail Site 3: 713 apartment units, 7,100 sf restaurant, and 7,100 sf retail	5,241	122	278	400	258	160	418

Notes:

[a] Related project information provided by the Los Angeles Department of Transportation in December 2021, Department of City Planning, and recent traffic studies prepared in the area. This list includes known development projects within one-half mile (2,460 foot) radius of the Project Site.







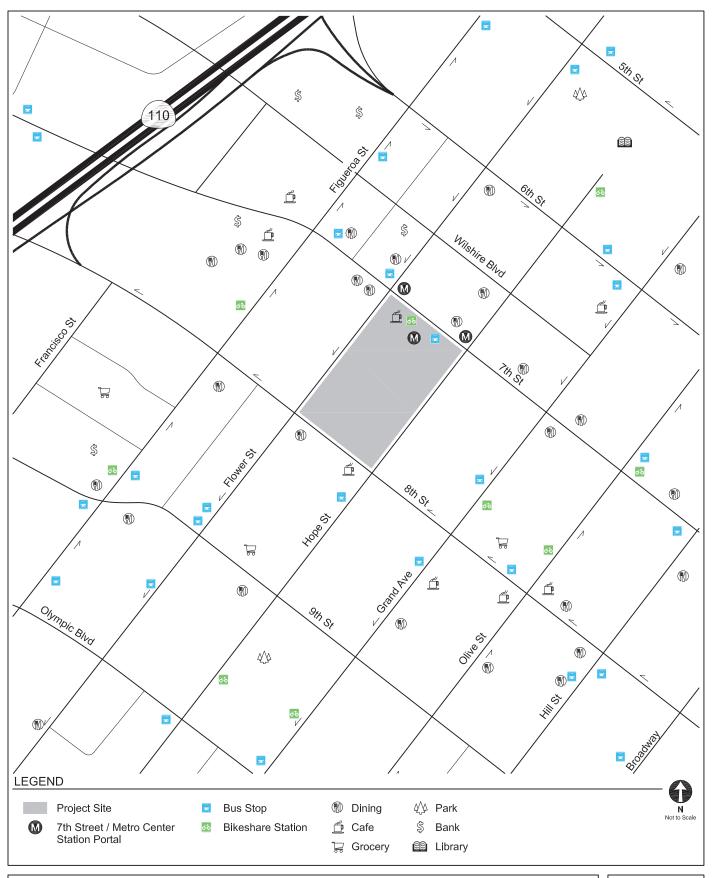










TABLE 3
FREEWAY OFF-RAMP SCREENING PROCESS

Freeway Off-Ramp	Peak Hour	Project Traffic	Meets Screening Criteria? [a]			
State Route 110 Southbound [b]	tate Route 110 Southbound [b]					
Off-ramp to 9th Street	AM PM	3 11	NO NO			
State Route 110 Northbound [c]	ate Route 110 Northbound [c]					
Off-ramp to 9th Street	AM PM	3 11	NO NO			

#### Notes:

- [a] Based on *Interim Guidance for Freeway Safety Analysis* (LADOT, 2020), a transportation assessment for a development project must include analysis of any freeway off-ramp where a project adds 25 or more peak hour trips.
- [b] 15% of incoming trips were assumed to travel southbound on State Route 110 to the Project Site via an off-ramp to 9th Street.
- [c] 15% of incoming trips were assumed to travel northbound on State Route 110 to the Project Site via an off-ramp to 9th Street.

TABLE 4
FACILITIES INVENTORY - HIGH INJURY NETWORK

Roadway	Distance (ft)
6th Street east of Figueroa Street	670
7th Street	0
8th Street east of Figueroa Street	0
9th Street east of Figueroa Street	665
Olympic Boulevard	1,320
Figueroa Street	425

# TABLE 5 FACILITIES INVENTORY - CROSSING DISTANCES

Crossing Control Device	Distance (ft)
6th Street from Figueroa Street to Flower Street	415
6th Street from Flower Street to Hope Street	415
6th Street from Hope Street to Grand Avenue	415
6th Street from Grand Avenue to Olive Street	415
6th Street from Olive Street to Hill Street	415
Wilshire Boulevard from Figueroa Street to Flower Street	415
Wilshire Boulevard from Flower Street to Hope Street	415
Wilshire Boulevard from Hope Street to Grand Avenue	415
7th Street from Figueroa Street to Flower Street	415
7th Street from Flower Street to Hope Street	415
7th Street from Hope Street to Grand Avenue	415
7th Street from Grand Avenue to Olive Street	415
7th Street from Olive Street to Hill Street	415
8th Street from Figueroa Street to Flower Street	415
8th Street from Flower Street to Hope Street	415
8th Street from Hope Street to Grand Avenue	415
8th Street from Grand Avenue to Olive Street	415
8th Street from Olive Street to Hill Street	415
9th Street from Figueroa Street to Flower Street	460
9th Street from Flower Street to Hope Street	415
9th Street from Hope Street to Grand Avenue	415
9th Street from Grand Avenue to Olive Street	415
9th Street from Olive Street to Hill Street	415
Olympic Boulevard from Figueroa Street to Flower Street	415
Olympic Boulevard from Flower Street to Hope Street	415
Olympic Boulevard from Hope Street to Grand Avenue	415
Olympic Boulevard from Grand Avenue to Olive Street	415
Olympic Boulevard from Olive Street to Hill Street	415
Figueroa Street between 6th Street and Wilshire Boulevard	360
Figueroa Street between Wilshire Boulevard and 7th Street	315
Figueroa Street between 7th Street and 8th Street	650
Figueroa Street between 8th Street and 9th Street	790
Figueroa Street between 9th Street and Olympic Boulevard	550
Flower Street between 6th Street and Wilshire Boulevard	360
Flower Street between Wilshire Boulevard and 7th Street	315
Flower Street between 7th Street and 8th Street	650
Flower Street between 8th Street and 9th Street	690
Flower Street between 9th Street and Olympic Boulevard	630
Hope Street between 6th Street and Wilshire Boulevard	360
Hope Street between Wilshire Boulevard and 7th Street	315
Hope Street between 7th Street and 8th Street	650
Hope Street between 8th Street and 9th Street	690
Hope Street between 9th Street and Olympic Boulevard	630

# TABLE 5 CONT. FACILITIES INVENTORY - CROSSING DISTANCES

Crossing Control Device	Distance (ft)
Grand Avenue between 6th Street and Wilshire Boulevard	360
Grand Avenue between Wilshire Boulevard and 7th Street	315
Grand Avenue between 7th Street and 8th Street	650
Grand Avenue between 8th Street and 9th Street	690
Grand Avenue between 9th Street and Olympic Boulevard	630
Olive Street between Wilshire Boulevard and 7th Street	660
Olive Street between 7th Street and 8th Street	650
Olive Street between 8th Street and 9th Street	690
Olive Street between 9th Street and Olympic Boulevard	630
Hill Street between Wilshire Boulevard and 7th Street	660
Hill Street between 7th Street and 8th Street	650
Hill Street between 8th Street and 9th Street	690
Hill Street between 9th Street and Olympic Boulevard	630

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



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

# Project Information Project: J1879 - The Bloc Residential Tower Scenario: WWW Address: 700 S FLOWER ST, 90017

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?

<ul><li>Yes</li></ul>	<ul><li>No</li></ul>
-----------------------	----------------------

### **Existing Land Use**

Unit

Land Use Type

Retail   General Retail	-	24.342	ksf	•
Retail   General Retail		24.342	ksf	
Click here to add a single custom land use t	ype (w	vill be included	d in the above	list)
	, , , , , , , , , , , , , , , , , , ,			
Proposed Proje	ect	Land U	se	
Proposed Proje  Land Use Type	ect	Land U		
	ect l			ı
Land Use Type		Value	e Unit	
Land Use Type Housing   Multi-Family		<b>Value</b> 466	e Unit DU	
Land Use Type Housing   Multi-Family		<b>Value</b> 466	e Unit DU	٠
Land Use Type Housing   Multi-Family		<b>Value</b> 466	e Unit DU	٠
Land Use Type Housing   Multi-Family		<b>Value</b> 466	e Unit DU	٠
Land Use Type Housing   Multi-Family		<b>Value</b> 466	e Unit DU	•
Land Use Type Housing   Multi-Family		<b>Value</b> 466	e Unit DU	•
Land Use Type Housing   Multi-Family		<b>Value</b> 466	e Unit DU	•
Land Use Type Housing   Multi-Family		<b>Value</b> 466	e Unit DU	•
Land Use Type Housing   Multi-Family		<b>Value</b> 466	e Unit DU	•

### **Project Screening Summary**

Existing Land Use	Propos	sed								
587	1,39	5								
Daily Vehicle Trips Daily Vehicle Trips										
4,397 8,698										
Daily VMT	Daily VI	MT								
Tier 1 Screen	ning Criteria									
Project will have less reside to existing residential units mile of a fixed-rail station.										
Tier 2 Screen	ning Criteria									
The net increase in daily tri	ps < 250 trips	808 Net Daily Trips								
The net increase in daily VM	MT ≤ 0	4,301 Net Daily VMT								
The proposed project consi land uses ≤ 50,000 square f	•	<b>0.000</b> ksf								
The proposed project VMT a		perform								



### **VMT Calculator User Agreement**

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

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

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

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

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

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

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

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

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

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

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

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

You, the User	
Ву:	Javeen Mullachy Wellians
Print Name:	Lauren Mullarkey-Williams
Title:	Associate
Company:	Gibson Transportation Consulting, Inc.
Address:	555 W. 5th Street, Suite 3375, Los Angeles, CA 90013
Phone:	(213) 683-0088
	Imullarkey-williams@gibsontrans.com
Email Address:	1/31/22
Date:	1/01/22

### Land Use: 820 **Shopping Center (>150k)**

### **Description**

A shopping center is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. Each study site in this land use has at least 150,000 square feet of gross leasable area (GLA). It often has more than one anchor store. Various names can be assigned to a shopping center within this size range, depending on its specific size and tenants, such as community center, regional center, superregional center, fashion center, and power center.

A shopping center of this size typically contains more than retail merchandising facilities. Office space, a movie theater, restaurants, a post office, banks, a health club, and recreational facilities are common tenants.

A shopping center of this size can be enclosed or open-air. The vehicle trips generated at a shopping center are based upon the total GLA of the center. In the case of a smaller center without an enclosed mall or peripheral buildings, the GLA is the same as the gross floor area of the building.

The 150,000 square feet GLA threshold value between community/regional shopping center and shopping plaza (Land Use 821) is based on an examination of trip generation data. For a shopping plaza that is smaller than the threshold value, the presence or absence of a supermarket within the plaza has a measurable effect on site trip generation. For a shopping center that is larger than the threshold value, the trips generated by its other major tenants mask any effects of the presence or absence of an on-site supermarket.

Shopping plaza (40-150k) (Land Use 821), strip retail plaza (<40k) (Land Use 822), and factory outlet center (Land Use 823) are related uses.

### Additional Data

Many shopping centers—in addition to the integrated unit of shops in one building or enclosed around a mall—include outparcels (peripheral buildings or pads located on the perimeter of the center adjacent to the streets and major access points). These buildings are typically drive-in banks, retail stores, restaurants, or small offices. Although the data herein do not indicate which of the centers studied include peripheral buildings, it can be assumed that some of the data show their effect.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/tripand-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Colorado, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky,



Maryland, Massachusetts, Michigan, Minnesota, New Jersey, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia, and Wisconsin.

### **Source Numbers**

77, 110, 154, 156, 159, 190, 199, 202, 204, 213, 251, 269, 294, 295, 299, 304, 305, 307, 308, 309, 311, 314, 315, 316, 317, 319, 365, 385, 404, 414, 423, 442, 446, 562, 629, 702, 715, 728, 868, 871, 880, 899, 912, 926, 946, 962, 973, 974, 978, 1034, 1040, 1067



### **Shopping Center (>150k)** (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA On a: Weekday

Setting/Location: General Urban/Suburban

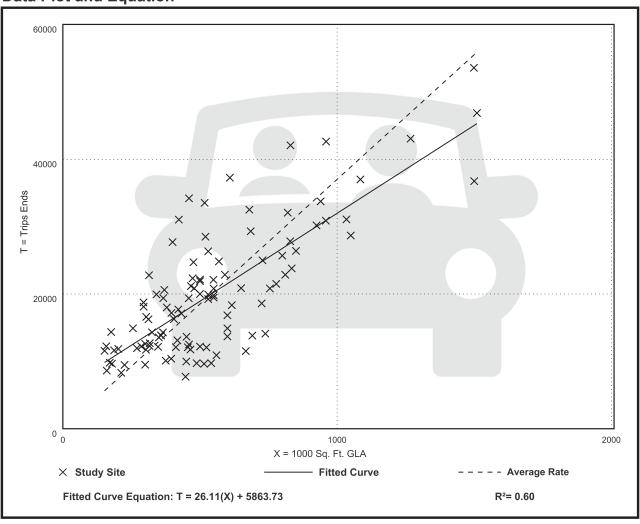
Number of Studies: 108 Avg. 1000 Sq. Ft. GLA: 538

Directional Distribution: 50% entering, 50% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
37.01	17.27 - 81.53	12.79

### **Data Plot and Equation**





# Shopping Center (>150k) (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA

On a: Weekday,

**Peak Hour of Adjacent Street Traffic,** 

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

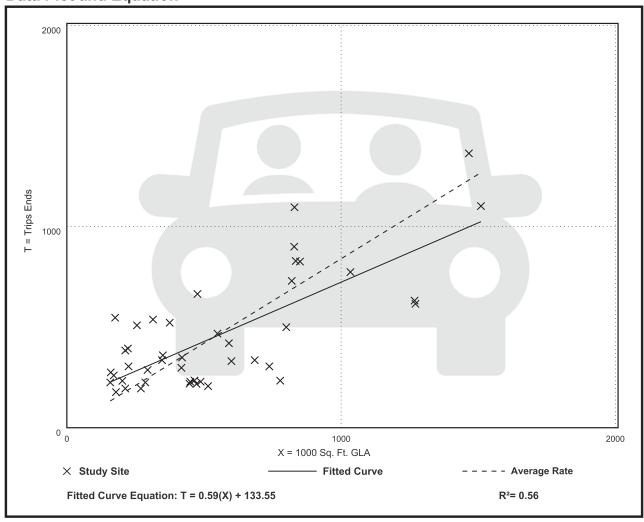
Number of Studies: 44 Avg. 1000 Sq. Ft. GLA: 546

Directional Distribution: 62% entering, 38% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
0.84	0.30 - 3.11	0.42

### **Data Plot and Equation**





### **Shopping Center (>150k)** (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

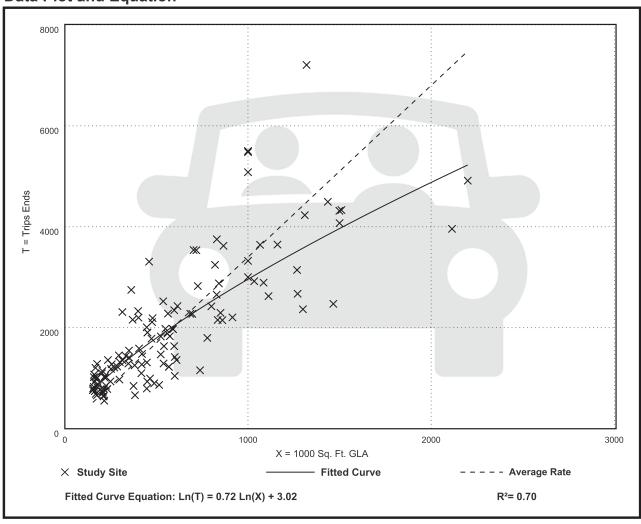
Number of Studies: 126 Avg. 1000 Sq. Ft. GLA: 581

Directional Distribution: 48% entering, 52% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
3.40	1.57 - 7.58	1.26

### **Data Plot and Equation**





## Appendix B

**Traffic Counts** 

### **Turning Movement Count Report AM**

Location ID:

North/South: S Hope Street Date: 09/20/17

East/West: W 8th Street Los Angeles, CA City:

	9	Southboun	d		Westbound	H	1	Northboun	d		Eastbouna	1	
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	Totals.
7:00	18	22	0	21	236	12	0	46	33	0	0	0	388
7:15	14	22	0	29	292	13	0	59	32	0	0	0	461
7:30	19	22	0	37	289	11	0	66	29	0	0	0	473
7:45	22	41	0	32	267	16	0	93	43	0	0	0	514
8:00	24	43	0	33	277	14	0	97	58	0	0	0	546
8:15	11	30	0	35	282	19	0	106	41	0	0	0	524
8:30	21	27	0	44	274	14	0	115	49	0	0	0	544
8:45	14	18	0	32	301	6	0	124	54	0	0	0	549
9:00	15	32	0	27	276	16	0	109	52	0	0	0	527
9:15	24	29	0	58	243	15	0	106	50	0	0	0	525
9:30	16	33	0	36	233	10	0	95	37	0	0	0	460
9:45	20	19	0	35	193	23	0	82	34	0	0	0	406
Total Volume:	218	338	0	419	3163	169	0	1098	512	0	0	0	5917
Annroach %	39%	61%	0%	11%	84%	5%	0%	68%	32%	0%	0%	0%	

Tota	l Volume:	218	338	0	419	3163	169	0	1098	512	0	0	0	5917
Арр	oroach %	39%	61%	0%	11%	84%	5%	0%	68%	32%	0%	0%	0%	

Peak Hr Begin:	8:00												
PHV	70	118	0	144	1134	53	0	442	202	0	0	0	2163
PHF		0.701			0.982			0.904			0.000		0.985

### **Turning Movement Count Report PM**

Location ID:

North/South: S Hope Street Date: 09/20/17

East/West: W 8th Street Los Angeles, CA City:

	9	outhboun	d		Nestbound	1	1	Northboun	d		Eastbouna	1	
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	Totals.
15:00	21	26	0	24	229	14	0	72	49	0	0	0	435
15:15	29	47	0	23	236	17	0	82	49	0	0	0	483
15:30	30	37	0	12	244	18	0	84	65	0	0	0	490
15:45	29	32	0	26	224	19	0	98	49	0	0	0	477
16:00	23	55	0	18	245	15	0	78	37	0	0	0	471
16:15	34	70	0	19	211	25	0	75	40	0	0	0	474
16:30	32	62	0	19	283	16	0	79	30	0	0	0	521
16:45	38	50	0	24	244	20	0	83	24	0	0	0	483
17:00	33	54	0	25	298	33	0	101	36	0	0	0	580
17:15	33	74	0	14	218	20	0	81	27	0	0	0	467
17:30	25	66	0	18	244	25	0	86	39	0	0	0	503
17:45	28	67	0	26	270	19	0	74	31	0	0	0	515
Total Volume:	355	640	0	248	2946	241	0	993	476	0	0	0	5899
Approach 9/	260/	C /10/	00/	70/	060/	70/	00/	600/	220/	00/	00/	00/	

Total Volume:	355	640	0	248	2946	241	0	993	476	0	0	0	5899
Approach %	36%	64%	0%	7%	86%	7%	0%	68%	32%	0%	0%	0%	

Peak Hr Begin:	17:00												
PHV	119	261	0	83	1030	97	0	342	133	0	0	0	2065
PHF		0.888			0.850			0.867			0.000		0.890

### **Pedestrian/Bicycle Count Report**

	No	rth	Ec	ıst	So	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	33	0	11	1	33	0	46	1
7:15	30	0	13	1	34	0	38	2
7:30	21	0	12	1	25	2	39	1
7:45	24	3	20	4	35	2	54	3
8:00	39	1	17	0	41	0	72	2
8:15	46	1	24	0	46	2	53	0
8:30	35	0	18	1	50	1	65	2
8:45	31	0	26	3	40	4	64	1
9:00	32	1	27	2	47	3	54	3
9:15	37	0	23	1	42	0	51	3
9:30	30	0	24	1	33	0	54	0
9:45	37	1	20	4	32	0	53	1

	No	rth	East		So	uth	W	est
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	38	0	20	3	54	4	59	1
15:15	52	0	31	1	61	0	76	1
15:30	54	1	27	2	57	2	78	1
15:45	35	1	26	1	56	0	61	0
16:00	43	1	35	1	54	0	77	0
16:15	46	2	21	2	40	0	62	4
16:30	46	4	25	1	54	0	43	3
16:45	53	2	28	2	59	1	81	1
17:00	60	2	29	4	67	5	73	3
17:15	62	4	26	0	67	0	78	0
17:30	91	2	40	3	74	1	79	3
17:45	58	5	34	4	58	1	72	1



TOTAL

TOTAL



TOTAL

TOTAL

STREET: North/South Flower St East/West 8th St April 20, 2017 Thursday Weather: SUNNY Day: Date Hours: 7-10 & 3-6 Chekrs: NDS YES District: I/S CODE School Day: N/B S/B E/B W/B DUAL-WHEELED BIKES BUSES N/B TIME S/B TIME E/B TIME W/B TIME AM PK 15 MIN 0.00 9.00 0.00 8.00 PM PK 15 MIN 0.00 17.15 0.00 17.30 AM PK HOUR 0.00 0.00 8.45 7.30 PM PK HOUR 0.00 17 00 0.00 17.00 TOTAL XING N/L NORTHBOUND Approach **SOUTHBOUND Approach** XING S/L Hours Rt Total Hours Rt Total N-S Ped Sch Ped Sch 7-8 7-8 8-9 8-9 9-10 9-10 15-16 15-16 16-17 16-17 17-18 17-18 TOTAL TOTAL **EASTBOUND Approach WESTBOUND Approach** TOTAL XING W/L XING E/L Hours Th Rt Total Hours Rt Total E-W Ped Ped Th Sch 7-8 7-8 8-9 8-9 9-10 9-10 15-16 15-16 16-17 16-17 17-18 17-18 

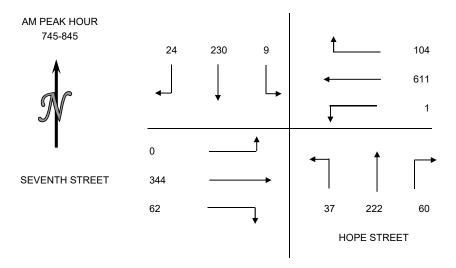
### INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR

PROJECT: DOWNTOWN LOS ANGELES TRAFFIC COUNTS

DATE: TUESDAY MAY 5, 2009
PERIOD: 7:00 AM TO 9:00 AM
INTERSECTION: N/S HOPE STREET
E/W SEVENTH STREET

45 MINI COLINITO	4	2	2	4	F	6	7	0	0	10	11	10	TOTALC
15 MIN COUNTS	'	2	3	4	5	6	1	8	9		11	12	TOTALS
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-715	1	32	1	15	84	1	8	34	5	11	75	0	267
715-730	2	34	2	21	110	0	15	33	3	8	75	0	303
730-745	3	26	2	12	63	0	11	50	7	10	83	0	267
745-800	11	63	4	41	171	0	13	41	8	13	76	0	441
800-815	8	52	2	18	125	0	17	41	13	15	93	0	384
815-830	2	49	2	21	166	1	16	70	9	20	81	0	437
830-845	3	66	1	24	149	0	14	70	7	14	94	0	442
845-900	2	56	3	23	135	0	19	82	11	11	78	0	420
HOUR TOTALS													
700-800	17	155	9	89	428	1	47	158	23	42	309	0	1278
715-815	24	175	10	92	469	0	56	165	31	46	327	0	1395
730-830	24	190	10	92	525	1	57	202	37	58	333	0	1529
745-845	24	230	9	104	611	1	60	222	37	62	344	0	1704
800-900	15	223	8	86	575	1	66	263	40	60	346	0	1683



PEDESTRIAN COUN	NTS			
PERIOD	NORTH	EAST	SOUTH	WEST
15 MIN COUNTS	LEG	LEG	LEG	LEG
700-715	71	44	66	77
715-730	113	48	74	85
730-745	102	62	89	106
745-800	220	119	108	117
800-815	161	127	112	147
815-830	153	97	71	109
830-845	112	68	134	123
845-900	160	86	119	143
HOUR TOTALS				
700-800	506	273	337	385
715-815	596	356	383	455
730-830	636	405	380	479
745-845	646	411	425	496
800-900	586	378	436	522

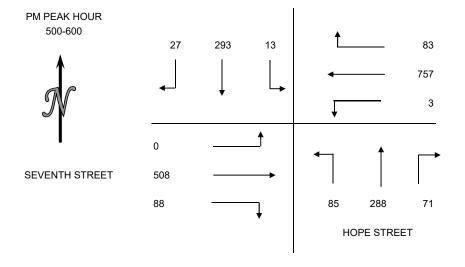
### INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR

PROJECT: DOWNTOWN LOS ANGELES TRAFFIC COUNTS

DATE: TUESDAY MAY 5, 2009
PERIOD: 4:00 PM TO 6:00 PM
INTERSECTION: N/S HOPE STREET
E/W SEVENTH STREET

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT		EBTH		
400-415	6	56	2	15	149	1	11	64	15	16	118	0	453
415-430	5	45	1	15	133	1	11	49	7	8	116	0	391
430-445	2	62	4	10	116	0	12	59	8	8	126	0	407
445-500	6	69	3	15	153	0	21	65	14	24	162	0	532
500-515	13	71	3	32	152	2	17	66	18	25	134	0	533
515-530	8	55	4	17	175	1	30	67	26	20	160	0	563
530-545	4	91	3	17	193	0	7	65	17	22	117	0	536
545-600	2	76	3	17	237	0	17	90	24	21	97	0	584
HOUR TOTALS													
400-500	19	232	10	55	551	2	55	237	44	56	522	0	1783
415-515	26	247	11	72	554	3	61	239	47	65	538	0	1863
430-530	29	257	14	74	596	3	80	257	66	77	582	0	2035
445-545	31	286	13	81	673	3	75	263	75	91	573	0	2164
500-600	27	293	13	83	757	3	71	288	85	88	508	0	2216



PEDESTRIAN COUN	NTS			
PERIOD	NORTH	EAST	SOUTH	WEST
15 MIN COUNTS	LEG	LEG	LEG	LEG
400-415	194	103	259	169
415-430	176	84	119	125
430-445	161	98	156	135
445-500	200	120	209	176
500-515	262	126	193	164
515-530	243	116	174	134
530-545	197	108	213	191
545-600	202	122	203	123
HOUR TOTALS				
400-500	731	405	743	605
415-515	799	428	677	600
430-530	866	460	732	609
445-545	902	470	789	665
500-600	904	472	783	612

### Appendix C

### Threshold T-1 Evaluation Tables

TABLE C-1 STREET SUMMARY

Street Name	Mobility Plan 2035	Мс	obility Plan 2035	[b]	Existing Conditions & Project Conditions [c]			
Street Name	Street Classification [a]	Half-ROW (ft)	Half-Roadway Width (ft)	Sidewalk Width (ft)	Half-ROW (ft)	Half-Roadway Width (ft)	Sidewalk Width (ft)	
Flower Street	Modified Avenue II	45	33	12	45	33	12	
Hope Street	Avenue II	43	28	15	43	32.9	10.1	
7th Street	Modified Avenue II	40	28	12	43	33.1	9.9	
8th Street	Modified Avenue II	45	33	12	43	32.8	10.2	

### Notes

- [a] Street classifications provided by NavigateLA.
- [b] Source: Mobility Plan 2035: An Element of the General Plan, Los Angeles Department of City Planning, September 2016.
- [c] The Project is requesting waivers of dedication and improvement requirement, as detailed in the Adjacent Street Summary and corresponding exhibit.
- [d] Difference between Mobility Plan standards and existing conditions and Project conditions. The Project is seeking a waiver of dedication and improvement listed below:
  - Hope Street: Waiver of a 4.9-foot sidewalk widening and a 3-foot sidewalk easement.
- 7th Street: Waiver of a 2.1-foot sidewalk widening.
- 8th Street: Waiver of a 2-foot sidewalk dedication and a 5-foot sidewalk easement.
- Waiver of a dedication to provide 15-foot by 15-foot corner cut at the southwest intersection of 7th Street & Hope Street
- Waiver of a dedication to provide 15-foot by 15-foot corner cut at the southeast intersection of 7th Street & Hope Street



### **Plans, Policies and Programs Consistency Worksheet**

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

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

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?

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 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.)?

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 co and II, and/or Avenue I, II, or III on property zone	•	
	A.2 If <b>A.1</b> is <b>yes</b> , is the project required to make Right of Way as demonstrated by the street desi		mprovements to the Public  Yes No N/A
	A.3 If <b>A.2</b> is yes, is the project making the dedica designated dimensions of the fronting street (Bo	· · · · · · · · · · · · · · · · · · ·	•
			☐ Yes 🗸 No ☐N/A
	If the answer is to <b>A.1</b> or <b>A.2</b> is <b>NO</b> , or to <b>A.1</b> , <b>A.</b> the dedication and improvement requirements to Street Designations and Standard Roadway Dime	hat are needed to comply	
	A.4 If the answer to <b>A.3. is NO</b> , is the project app	olicant asking to waive fron	n the dedication standards?  Ves No No
	y streets subject to dedications or voluntary		•
Frontag	ge 1 Existing PROW'/Curb': Existing	_Required	_Proposed
Frontag	ge 2 Existing PROW'/Curb': Existing	_Required	_Proposed
Frontag	ge 3 Existing PROW'/Curb': Existing	_Required	_Proposed
Frontag	ge 4 Existing PROW'/Curb': Existing	_Required	_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 No
- Bicycle Enhanced Network Yes
- Bicycle Lane Network
   Yes
- Pedestrian Enhanced District Yes
- Neighborhood Enhanced Network Yes

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? The Project Site is located adjacent to an existing Metro bike share station.

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. The dedications and improvements asking to be waived are not necessary to meeting the City's mobility needs, as further detailed in Table C-1.

### 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 <a href="https://arcg.is/fubbD">https://arcg.is/fubbD</a>



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 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 No

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 N/A

<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 <a href="https://arcg.is/fubbD">https://arcg.is/fubbD</a>



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 N/A

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 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 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 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 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 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 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?

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?

Yes 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 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?

Yes No

E.2 If the Answer to E.1 is YES, does the Project or Plan result in a significant VMT impact?

Yes 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 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 <a href="http://eng2.lacity.org/techdocs/stdplans/s-400/S-470-1">http://eng2.lacity.org/techdocs/stdplans/s-400/S-470-1</a> 20151021 150849.pdf

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

LADOT Transportation Assessment Support Map https://arcg.is/fubbD

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

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

### ATTACHMENT D.1: CITY PLAN, POLICIES AND GUIDELINES

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

The <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.

### Appendix D

Vehicle Miles Traveled Worksheets

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



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

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

### **Project Information Existing Land Use** Unit **Land Use Type** Value **Project:** J1879 - The Bloc Residential Tower Retail | General Retail 24.342 ksf Project **Scenario:** Retail | General Retail 24.342 Address: 700 S FLOWER ST, 90017 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 Housing | Multi-Family DU 466 466 DU Housing | Multi-Family 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

### **Project Screening Summary**

Existing Land Use	Propos	sed
587	1,39	
Daily Vehicle Trips	Daily Vehicl	
4,397	8,69	
Daily VMT	Daily VI	TM
Tier 1 Screen	ning Criteria	
Project will have less reside to existing residential units mile of a fixed-rail station.		
Tier 2 Screen	ning Criteria	
The net increase in daily tri	ps < 250 trips	808 Net Daily Trips
The net increase in daily VM	<b>M</b> T ≤ 0	4,301 Net Daily VMT
The proposed project consiland uses ≤ 50,000 square f	•	0.000 ksf
The proposed project VMT a		perform



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



# Project Information Project: Scenario: Address: 700 S FLOWER ST, 90017 Proposed Project Land Use Type Value Unit Housing | Multi-Family

### **TDM Strategies**

Select each section to show individual strategies Use **✓** to denote if the TDM strategy is part of the proposed project or is a mitigation strategy **Proposed Project** With Mitigation **Max Home Based TDM Achieved?** No No **Max Work Based TDM Achieved?** No No (A) **Parking Reduce Parking Supply** city code parking provision for the project site actual parking provision for the project site ▼ Proposed Prj Mitigation Unbundle Parking monthly parking cost (dollar) for the project Proposed Prj Mitigation Parking Cash-Out 50 percent of employees eligible Proposed Prj Mitigation Price Workplace Parking daily parking charge (dollar) percent of employees subject to priced 50 Proposed Pri Mitigation Residential Area Parking cost (dollar) of annual permit Proposed Prj Mitigation B **Transit** C **Education & Encouragement** O **Commute Trip Reductions** E **Shared Mobility** F **Bicycle Infrastructure** G **Neighborhood Enhancement** 

### **Analysis Results**

Proposed Project	With
1,213	1,213
Daily Vehicle Trips	Daily Vehicle Trips
7,564	7,564
Daily VMT	Daily VMT
2.4	2.4
Houseshold VMT per Capita	Houseshold VMT
N/A	N/A
Work VMT per Employee	Work VMT per Employee
Significant \	/MT Impact?
Household: No	Household: No
Threshold = 6.0 15% Below APC	Threshold = 6.0 15% Below APC
Work: N/A	Work: N/A
Threshold = 7.6 15% Below APC	Threshold = 7.6 15% Below APC



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

Report 1: Project & Analysis Overview

Date: April 27, 2022

Project Name: J1879 - The Bloc Residential Tower

Project Scenario: Project

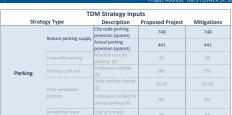
Project Address: 700 S FLOWER ST, 90017



Project Information						
Land	l Use Type	Value	Units			
	Single Family	0	DU			
	Multi Family	466	DU			
Housing	Townhouse	0	DU			
	Hotel	0	Rooms			
	Motel	0	Rooms			
	Family	0	DU			
ffordable Housing	Senior	0	DU			
Affordable Housing	Special Needs	0	DU			
	Permanent Supportive	0	DU			
	General Retail	0.000	ksf			
	Furniture Store	0.000	ksf			
	Pharmacy/Drugstore	0.000	ksf			
	Supermarket	0.000	ksf			
	Bank	0.000	ksf			
	Health Club	0.000	ksf			
Datail	High-Turnover Sit-Down		1.6			
Retail	Restaurant	0.000	ksf			
	Fast-Food Restaurant	0.000	ksf			
	Quality Restaurant	0.000	ksf			
	Auto Repair	0.000	ksf			
	Home Improvement	0.000	ksf			
	Free-Standing Discount	0.000	ksf			
	Movie Theater	0	Seats			
055:	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		0	Trips			

	Analysis Res	sults		
	Total Employees:	0		
	Total Population:	1,050		
Propose	ed Project	With Mi	tigation	
1,213	Daily Vehicle Trips	1,213	Daily Vehicle Trips	
7,564	Daily VMT	7,564	Daily VMT	
2.4	Household VMT per Capita	2.4	Household VMT per Capita	
N/A	Work VMT per Employee	N/A	Work VMT per Employee	
	Significant VMT	Impact?		
	APC: Centr	al		
	Impact Threshold: 15% Bel	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	





### (cont. on following page)

	TDM	Strategy Inputs,	Cont.	
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%)	o	0
Transit	Implement neiahborhood 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%
ncouragement	Promotions and marketing	Employees and residents participating (%)	0%	0%

### (cont. on following page)

Strate	gy Type	Strategy Inputs, 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		
		Degree of implementation (low, medium, high)	0	0	
	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)	О	0	
Shared Mobility	Bike share	Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)	o	0	
	School carpool program	Level of implementation (Low, Medium, High)	0	0	

### (cont. on following page)

	TDM	Strategy Inputs,	Cont.	
Strate	egy Type	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)	o	0
	Traffic calming	Streets with traffic calming improvements (%)	0%	0%
Neighborhood Enhancement	Improvements	Intersections with traffic calming Improvements (%)	0%	0%
	Pedestrian network improvements	Included (within project and connecting off- site/within project only)	o	0

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

**Report 3: TDM Outputs** 

Date: April 27, 2022 Project Name: J1879 - The Bloc Residential Tower Project Scenario: Project Project Address: 700 S FLOWER ST, 90017





				TDIV	l Adjustm	ents by T	rip Purpo	se & Stra	tegy					
						Place type:								
		Home B	ased Work	Ноте Во	ased Work	Ноте Вс	ised Other	Ноте Во	ased Other	Non-Home	Based Other	Non-Home	Based Other	
			luction		action		Production Attraction			luction	Attraction		Source	
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
	Reduce parking supply	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	TDM Strategy
Parking	Unbundle parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix, Par
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	sections 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%	
Transit	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix, Tra sections 1 -
	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 Strate Appendix Education
Encouragement	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Encouragem sections 1
	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strate
Reductions	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix Commute T Reduction
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	sections 1
	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 Strate
Shared Mobility S	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, Sh
	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 secti 1 - 3

	TDM Adjustments by Trip Purpose & Strategy, Cont.													
Place type: Urban														
		Home B	ased Work	Ноте Во	ased Work	Ноте В	sed Other	Ноте Во	ased Other	Non-Home	Based Other	Non-Home	Based Other	
		Prod	luction	Attr	action	Prod	uction	Attr	action	Prod	uction	Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle	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
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%	Infrastructure sections 1 - 3
	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 - 5
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	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	
MAX. TDM EFFECT	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	

= Minimum (X%, 1-[(1-A)*(1-B)])								
	where X%=							
PLACE	urban	75%						
	compact infill	40%						
TYPE MAX:	suburban center	20%						
	suburban	15%						

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

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

**Report 4: MXD Methodology** 

Date: April 27, 2022

Project Name: J1879 - The Bloc Residential Tower

Project Scenario: Project

Project Address: 700 S FLOWER ST, 90017



MXD Methodology - Project Without TDM											
Unadjusted Trips MXD Adjustment MXD Trips Average Trip Length Unadjusted VMT MXD VMT											
Home Based Work Production	418	-32.5%	282	5.2	2,174	1,466					
Home Based Other Production	1,157	-68.0%	370	3.9	4,512	1,443					
Non-Home Based Other Production	540	-16.1%	453	8.4	4,536	3,805					
Home-Based Work Attraction	0		0	7.8		0					
Home-Based Other Attraction	551	-67.2%	181	6.5	3,582	1,177					
Non-Home Based Other Attraction	131	-16.8%	109	7.4	969	807					

MXD Methodology with TDM Measures											
		Proposed Project		Project with Mitigation Measures							
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT					
Home Based Work Production	-13.0%	245	1,275	-13.0%	245	1,275					
Home Based Other Production	-13.0%	322	1,255	-13.0%	322	1,255					
Non-Home Based Other Production	-13.0%	394	3,309	-13.0%	394	3,309					
Home-Based Work Attraction	-13.0%			-13.0%							
Home-Based Other Attraction	-13.0%	157	1,023	-13.0%	157	1,023					
Non-Home Based Other Attraction	-13.0%	95	702	-13.0%	95	702					

Tron Tronic Based Gard, Attacked	13.070	23	702	13.070	55	702			
	MXD VMT M	ethodology Pe	er Capita & Per E	mployee					
Total Population: 1,050 Total Employees: 0									
			APC:	Central					
		Proposed Project		Project with Mitigation Measures					
Total Home Based Production VMT		2,530			2,530				
Total Home Based Work Attraction VMT		0			0				
Total Home Based VMT Per Capita		2.4			2.4				
Total Work Based VMT Per Employee		N/A			N/A				

# Appendix E Levels of Service Worksheets

Flower St & 7th St 03/20/2023

	٠	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<b>/</b>	<b>/</b>	<b>↓</b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ĵ»		ሻ	<b>†</b>						नाकि	
Traffic Volume (veh/h)	0	267	131	92	392	0	0	0	0	51	884	87
Future Volume (veh/h)	0	267	131	92	392	0	0	0	0	51	884	87
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1683	1683	1683	1683	0				1683	1683	1683
Adj Flow Rate, veh/h	0	290	142	100	426	0				55	961	95
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	528	258	343	832	0				110	2049	206
Arrive On Green	0.00	0.49	0.49	0.49	0.49	0.00				0.38	0.38	0.38
Sat Flow, veh/h	0	1067	522	861	1683	0				285	5330	536
Grp Volume(v), veh/h	0	0	432	100	426	0				322	508	281
Grp Sat Flow(s), veh/h/ln	0	0	1589	861	1683	0				1669	1448	1587
Q Serve(g_s), s	0.0	0.0	17.0	8.2	15.4	0.0				13.2	11.8	11.9
Cycle Q Clear(g_c), s	0.0	0.0	17.0	25.2	15.4	0.0				13.2	11.8	11.9
Prop In Lane	0.00		0.33	1.00		0.00				0.17		0.34
Lane Grp Cap(c), veh/h	0	0	786	343	832	0				642	1113	610
V/C Ratio(X)	0.00	0.00	0.55	0.29	0.51	0.00				0.50	0.46	0.46
Avail Cap(c_a), veh/h	0	0	786	343	832	0				642	1113	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.60	0.60	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	15.8	24.5	15.4	0.0				21.1	20.7	20.7
Incr Delay (d2), s/veh	0.0	0.0	2.8	0.3	0.3	0.0				2.8	1.3	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	10.5	3.0	8.6	0.0				9.3	7.3	8.2
Unsig. Movement Delay, s/veh	1											
LnGrp Delay(d),s/veh	0.0	0.0	18.6	24.8	15.7	0.0				23.9	22.0	23.2
LnGrp LOS	Α	Α	В	С	В	Α				С	С	С
Approach Vol, veh/h		432			526						1111	
Approach Delay, s/veh		18.6			17.4						22.9	
Approach LOS		В			В						С	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		50.0		40.0		50.0						
Change Period (Y+Rc), s		* 5.5		* 5.4		* 5.5						
Max Green Setting (Gmax), s		* 45		* 35		* 45						
Max Q Clear Time (q_c+l1), s		27.2		15.2		19.0						
Green Ext Time (p_c), s		3.1		7.2		2.9						
Intersection Summary												
HCM 6th Ctrl Delay			20.6									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	ၨ	<b>→</b>	$\rightarrow$	•	<b>←</b>	•	4	<b>†</b>	~	<b>&gt;</b>	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>†</b>			<b>†</b>	7		<b>↑</b> }			414	
Traffic Volume (veh/h)	0	463	0	0	696	118	42	253	68	10	262	27
Future Volume (veh/h)	0	463	0	0	696	118	42	253	68	10	262	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1683	0	0	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	0	503	0	0	757	128	46	275	74	11	285	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	0	1032	0	0	1032	875	108	559	149	53	751	75
Arrive On Green	0.00	0.61	0.00	0.00	0.61	0.61	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	0	1683	0	0	1683	1427	220	2097	557	39	2815	280
Grp Volume(v), veh/h	0	503	0	0	757	128	205	0	190	171	0	154
Grp Sat Flow(s), veh/h/ln	0	1683	0	0	1683	1427	1443	0	1431	1652	0	1482
Q Serve(g_s), s	0.0	14.8	0.0	0.0	28.4	3.4	3.2	0.0	10.1	0.0	0.0	7.6
Cycle Q Clear(g_c), s	0.0	14.8	0.0	0.0	28.4	3.4	10.9	0.0	10.1	7.5	0.0	7.6
Prop In Lane	0.00	14.0	0.00	0.00	20.4	1.00	0.22	0.0	0.39	0.06	0.0	0.19
Lane Grp Cap(c), veh/h	0.00	1032	0.00	0.00	1032	875	434	0	382	483	0	395
V/C Ratio(X)	0.00	0.49	0.00	0.00	0.73	0.15	0.47	0.00	0.50	0.35	0.00	0.39
Avail Cap(c_a), veh/h	0.00	1032	0.00	0.00	1032	875	434	0.00	382	483	0.00	395
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.00	9.6	0.00	0.00	12.2	7.4	27.9	0.00	27.9	26.9	0.00	27.0
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.0	4.6	0.4	3.7	0.0	4.6	2.0	0.0	27.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	8.7	0.0	0.0	16.0	1.9	7.4	0.0	7.0	5.8	0.0	5.3
Unsig. Movement Delay, s/veh		0.7	0.0	0.0	10.0	1.9	7.4	0.0	7.0	5.0	0.0	5.5
	0.0	11.0	0.0	0.0	16.8	7.7	31.5	0.0	32.5	29.0	0.0	29.9
LnGrp Delay(d),s/veh		11.0 B	0.0 A	0.0 A	10.0 B		31.3 C	0.0 A	32.5 C	29.0 C		
LnGrp LOS	A		A	A		A					A 225	<u>C</u>
Approach Vol, veh/h		503			885			395			325	
Approach Delay, s/veh		11.0			15.5			32.0			29.4	
Approach LOS		В			В			С			С	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.6		29.4		60.6		29.4				
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4				
Max Green Setting (Gmax), s		* 55		* 24		* 55		* 24				
Max Q Clear Time (g_c+l1), s		30.4		9.6		16.8		12.9				
Green Ext Time (p_c), s		6.4		1.6		3.6		1.8				
Intersection Summary												
HCM 6th Ctrl Delay			19.7									
HCM 6th LOS			В									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	•	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<b>/</b>	<b>&gt;</b>	<b>↓</b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4111						ተተተ	7
Traffic Volume (veh/h)	0	0	0	129	1193	0	0	0	0	0	591	221
Future Volume (veh/h)	0	0	0	129	1193	0	0	0	0	0	591	221
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1683	1683	0				0	1683	1683
Adj Flow Rate, veh/h				140	1297	0				0	642	240
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				231	1807	0				0	2436	756
Arrive On Green				0.36	0.36	0.00				0.00	0.53	0.53
Sat Flow, veh/h				489	5205	0.00				0.00	4747	1427
Grp Volume(v), veh/h				412	1025	0				0	642	240
Grp Sat Flow(s), veh/h/ln				1527	1317	0				0	1532	1427
				19.4	20.1					0.0	6.9	
Q Serve(g_s), s						0.0						8.6
Cycle Q Clear(g_c), s				21.1	20.1	0.0				0.0	6.9	8.6
Prop In Lane				0.34	1.401	0.00				0.00	0.407	1.00
Lane Grp Cap(c), veh/h				607	1431	0				0	2436	756
V/C Ratio(X)				0.68	0.72	0.00				0.00	0.26	0.32
Avail Cap(c_a), veh/h				748	1800	0				0	2436	756
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				25.0	24.7	0.0				0.0	11.5	11.9
Incr Delay (d2), s/veh				1.8	1.0	0.0				0.0	0.3	1.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				12.2	10.2	0.0				0.0	4.1	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				26.8	25.8	0.0				0.0	11.8	13.0
LnGrp LOS				С	С	Α				А	В	В
Approach Vol, veh/h					1437						882	
Approach Delay, s/veh					26.1						12.1	
Approach LOS					С						В	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		37.6		52.4								
Change Period (Y+Rc), s		5.0		* 4.7								
Max Green Setting (Gmax), s		41.0		* 39								
Max Q Clear Time (g_c+I1), s		23.1		10.6								
Green Ext Time (p_c), s		9.5		5.8								
Intersection Summary												
HCM 6th Ctrl Delay			20.8									
HCM 6th LOS			20.6 C									
			C									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	۶	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<i>&gt;</i>	<b>/</b>	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				- ሻ	<b>↑</b> ↑₽			€17∌			^↑	7
Traffic Volume (veh/h)	0	0	0	56	1192	151	212	465	0	0	124	74
Future Volume (veh/h)	0	0	0	56	1192	151	212	465	0	0	124	74
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1683	1683	1683	1683	1683	1683	0	1683	1683
Adj Flow Rate, veh/h				61	1296	164	230	505	0	0	135	80
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				725	1868	236	388	795	0	0	1379	615
Arrive On Green				0.45	0.45	0.45	0.43	0.43	0.00	0.00	0.43	0.43
Sat Flow, veh/h				1603	4130	523	746	1921	0	0	3282	1427
Grp Volume(v), veh/h				61	961	499	350	385	0	0	135	80
Grp Sat Flow(s), veh/h/ln				1603	1532	1589	1135	1455	0	0	1599	1427
Q Serve(g_s), s				2.0	22.5	22.5	21.9	18.4	0.0	0.0	2.3	3.0
Cycle Q Clear(g_c), s				2.0	22.5	22.5	24.1	18.4	0.0	0.0	2.3	3.0
Prop In Lane				1.00	22.0	0.33	0.66	10.4	0.00	0.00	2.0	1.00
Lane Grp Cap(c), veh/h				725	1385	719	556	627	0.00	0.00	1379	615
V/C Ratio(X)				0.08	0.69	0.69	0.63	0.61	0.00	0.00	0.10	0.13
Avail Cap(c_a), veh/h				725	1385	719	556	627	0.00	0.00	1379	615
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				14.0	19.7	19.7	22.4	19.8	0.00	0.0	15.2	15.4
Incr Delay (d2), s/veh				0.2	2.9	5.5	2.3	1.8	0.0	0.0	0.1	0.4
Initial Q Delay(d3),s/veh				0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				1.3	12.8	13.8	10.4	10.3	0.0	0.0	1.5	1.9
Unsig. Movement Delay, s/veh				1.0	12.0	13.0	10.4	10.5	0.0	0.0	1.0	1.7
LnGrp Delay(d),s/veh				14.3	22.6	25.1	24.7	21.6	0.0	0.0	15.3	15.9
LnGrp LOS				14.3 B	22.0 C	23.1 C	C C	C C	Α	Α	В	13.7 B
Approach Vol, veh/h				<u> </u>	1521			735			215	
					23.1			23.0			15.5	
Approach Delay, s/veh Approach LOS					23.1 C						15.5 B	
Approach LOS					C			С			D	
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		46.0		44.0				44.0				
Change Period (Y+Rc), s		* 5.3		* 5.2				* 5.2				
Max Green Setting (Gmax), s		* 41		* 39				* 39				
Max Q Clear Time (g_c+l1), s		24.5		5.0				26.1				
Green Ext Time (p_c), s		9.4		1.1				3.9				
Intersection Summary												
HCM 6th Ctrl Delay			22.4									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Flower St & 7th St 03/20/2023

	۶	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<b>/</b>	<b>/</b>	<b>↓</b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ĵ»		ሻ	<b>†</b>						सांक्रि	
Traffic Volume (veh/h)	0	341	163	124	500	0	0	0	0	69	1632	80
Future Volume (veh/h)	0	341	163	124	500	0	0	0	0	69	1632	80
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1683	1683	1683	1683	0				1683	1683	1683
Adj Flow Rate, veh/h	0	371	177	135	543	0				75	1774	87
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	497	237	218	776	0				94	2377	119
Arrive On Green	0.00	0.46	0.46	0.46	0.46	0.00				0.42	0.42	0.42
Sat Flow, veh/h	0	1077	514	773	1683	0				224	5689	286
Grp Volume(v), veh/h	0	0	548	135	543	0				559	881	496
Grp Sat Flow(s), veh/h/ln	0	0	1591	773	1683	0				1672	1448	1632
Q Serve(g_s), s	0.0	0.0	25.5	15.7	23.1	0.0				26.3	22.9	22.9
Cycle Q Clear(g_c), s	0.0	0.0	25.5	41.1	23.1	0.0				26.3	22.9	22.9
Prop In Lane	0.00		0.32	1.00		0.00				0.13		0.18
Lane Grp Cap(c), veh/h	0	0	734	218	776	0				699	1210	682
V/C Ratio(X)	0.00	0.00	0.75	0.62	0.70	0.00				0.80	0.73	0.73
Avail Cap(c_a), veh/h	0	0	734	218	776	0				699	1210	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.28	0.28	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	19.9	36.8	19.3	0.0				22.9	21.9	21.9
Incr Delay (d2), s/veh	0.0	0.0	6.8	1.5	0.8	0.0				9.3	3.9	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	15.5	4.5	11.2	0.0				17.2	12.7	14.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	26.8	38.4	20.1	0.0				32.3	25.8	28.6
LnGrp LOS	Α	Α	С	D	С	Α				С	С	С
Approach Vol, veh/h		548			678						1936	
Approach Delay, s/veh		26.8			23.7						28.4	
Approach LOS		С			С						С	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		47.0		43.0		47.0						
Change Period (Y+Rc), s		* 5.5		* 5.4		* 5.5						
Max Green Setting (Gmax), s		* 42		* 38		* 42						
Max Q Clear Time (g_c+l1), s		43.1		28.3		27.5						
Green Ext Time (p_c), s		0.0		7.3		3.2						
Intersection Summary												
HCM 6th Ctrl Delay			27.1									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	•	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	/	<b>&gt;</b>	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>+</b>			<b>†</b>	7		<b>∱</b> }			414	
Traffic Volume (veh/h)	0	678	0	0	865	94	97	328	81	15	333	31
Future Volume (veh/h)	0	678	0	0	865	94	97	328	81	15	333	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1683	0	0	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	0	737	0	0	940	102	105	357	88	16	362	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	0	1032	0	0	1032	875	132	422	119	53	700	67
Arrive On Green	0.00	0.61	0.00	0.00	0.61	0.61	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	0	1683	0	0	1683	1427	284	1582	444	38	2624	253
Grp Volume(v), veh/h	0	737	0	0	940	102	263	0	287	212	0	200
Grp Sat Flow(s), veh/h/ln	0	1683	0	0	1683	1427	859	0	1452	1429	0	1486
Q Serve(g_s), s	0.0	27.1	0.0	0.0	44.0	2.7	13.7	0.0	16.3	0.5	0.0	10.3
Cycle Q Clear(g_c), s	0.0	27.1	0.0	0.0	44.0	2.7	24.0	0.0	16.3	16.8	0.0	10.3
Prop In Lane	0.00	27.1	0.00	0.00	77.0	1.00	0.40	0.0	0.31	0.08	0.0	0.17
Lane Grp Cap(c), veh/h	0.00	1032	0.00	0.00	1032	875	285	0	387	424	0	396
V/C Ratio(X)	0.00	0.71	0.00	0.00	0.91	0.12	0.92	0.00	0.74	0.50	0.00	0.50
Avail Cap(c_a), veh/h	0.00	1032	0.00	0.00	1032	875	285	0.00	387	424	0.00	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.59	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.00	12.0	0.00	0.0	15.2	7.2	36.6	0.0	30.2	27.7	0.00	28.0
Incr Delay (d2), s/veh	0.0	2.5	0.0	0.0	13.3	0.3	36.4	0.0	12.1	4.2	0.0	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	13.5	0.0	0.0	25.2	1.5	13.5	0.0	11.1	7.6	0.0	7.3
Unsig. Movement Delay, s/veh		13.3	0.0	0.0	25.2	1.0	13.3	0.0	11.1	7.0	0.0	7.3
LnGrp Delay(d),s/veh	0.0	14.5	0.0	0.0	28.6	7.5	73.0	0.0	42.3	31.9	0.0	32.5
LnGrp LOS	Α	14.5 B	Α	0.0 A	20.0 C	7.5 A	73.0 E	0.0 A	42.3 D	31.9 C	Α	32.5 C
	A		A	A		A			U	C		
Approach Vol, veh/h		737			1042			550			412	
Approach Delay, s/veh		14.5			26.5			57.0			32.2	
Approach LOS		В			С			E			С	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.6		29.4		60.6		29.4				
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4				
Max Green Setting (Gmax), s		* 55		* 24		* 55		* 24				
Max Q Clear Time (g_c+I1), s		46.0		18.8		29.1		26.0				
Green Ext Time (p_c), s		4.9		1.1		5.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			30.2									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	۶	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<i>&gt;</i>	<b>&gt;</b>	ţ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					शा						<b>^</b>	7
Traffic Volume (veh/h)	0	0	0	172	1425	0	0	0	0	0	1733	325
Future Volume (veh/h)	0	0	0	172	1425	0	0	0	0	0	1733	325
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1683	1683	0				0	1683	1683
Adj Flow Rate, veh/h				187	1549	0				0	1884	353
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				255	1725	0				0	2478	769
Arrive On Green				0.35	0.35	0.00				0.00	0.54	0.54
Sat Flow, veh/h				567	5102	0				0	4747	1427
Grp Volume(v), veh/h				492	1244	0				0	1884	353
Grp Sat Flow(s), veh/h/ln				1502	1317	0				0	1532	1427
Q Serve(g_s), s				28.2	26.7	0.0				0.0	28.8	13.6
Cycle Q Clear(g_c), s				28.4	26.7	0.0				0.0	28.8	13.6
Prop In Lane				0.38		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				585	1395	0				0	2478	769
V/C Ratio(X)				0.84	0.89	0.00				0.00	0.76	0.46
Avail Cap(c_a), veh/h				589	1405	0				0	2478	769
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				28.0	27.5	0.0				0.0	16.2	12.7
Incr Delay (d2), s/veh				10.5	7.5	0.0				0.0	2.3	2.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				17.0	14.0	0.0				0.0	14.8	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				38.5	35.0	0.0				0.0	18.4	14.7
LnGrp LOS				D	D	А				А	В	В
Approach Vol, veh/h					1736						2237	
Approach Delay, s/veh					36.0						17.8	
Approach LOS					D						В	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		36.8		53.2								
Change Period (Y+Rc), s		5.0		* 4.7								
Max Green Setting (Gmax), s		32.0		* 48								
Max Q Clear Time (g_c+l1), s		30.4		30.8								
Green Ext Time (p_c), s		1.4		13.5								
Intersection Summary												
HCM 6th Ctrl Delay			25.8									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	ᄼ	<b>→</b>	$\rightarrow$	•	<b>←</b>	•	•	<b>†</b>	<b>/</b>	<b>&gt;</b>	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				- ኝ	ተተኈ			€î}•			^↑	7
Traffic Volume (veh/h)	0	0	0	102	1083	87	140	359	0	0	274	125
Future Volume (veh/h)	0	0	0	102	1083	87	140	359	0	0	274	125
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1683	1683	1683	1683	1683	1683	0	1683	1683
Adj Flow Rate, veh/h				111	1177	95	152	390	0	0	298	136
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				743	2008	162	298	783	0	0	1343	599
Arrive On Green				0.46	0.46	0.46	0.42	0.42	0.00	0.00	0.42	0.42
Sat Flow, veh/h				1603	4334	350	557	1942	0	0	3282	1427
Grp Volume(v), veh/h				111	832	440	248	294	0	0	298	136
Grp Sat Flow(s), veh/h/ln				1603	1532	1620	967	1455	0	0	1599	1427
Q Serve(g_s), s				3.6	18.0	18.0	15.0	13.2	0.0	0.0	5.4	5.5
Cycle Q Clear(g_c), s				3.6	18.0	18.0	20.3	13.2	0.0	0.0	5.4	5.5
Prop In Lane				1.00	10.0	0.22	0.61	10.2	0.00	0.00	0.4	1.00
Lane Grp Cap(c), veh/h				743	1419	751	470	611	0.00	0.00	1343	599
V/C Ratio(X)				0.15	0.59	0.59	0.53	0.48	0.00	0.00	0.22	0.23
Avail Cap(c_a), veh/h				743	1419	751	470	611	0.00	0.00	1343	599
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				13.9	17.8	17.8	22.0	19.0	0.00	0.00	16.7	16.7
Incr Delay (d2), s/veh				0.4	17.8	3.3	1.1	0.6	0.0	0.0	0.4	0.9
Initial Q Delay(d3),s/veh				0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
%ile BackOfQ(95%),veh/ln				2.4	10.5	11.4	7.6	7.8	0.0	0.0	3.6	3.4
Unsig. Movement Delay, s/veh				2.4	10.5	11.4	7.0	7.0	0.0	0.0	3.0	3.4
LnGrp Delay(d),s/veh				14.3	19.6	21.1	23.1	19.6	0.0	0.0	17.1	17.6
LnGrp LOS				14.3 B	19.0 B	21.1 C	23.1 C	19.0 B	0.0 A	0.0 A	17.1 B	
				D		C	C		А	А		В
Approach Vol, veh/h					1383			542			434	
Approach Delay, s/veh					19.6			21.2			17.2	
Approach LOS					В			С			В	
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		47.0		43.0				43.0				
Change Period (Y+Rc), s		* 5.3		* 5.2				* 5.2				
Max Green Setting (Gmax), s		* 42		* 38				* 38				
Max Q Clear Time (q_c+l1), s		20.0		7.5				22.3				
Green Ext Time (p_c), s		9.7		2.5				3.2				
Intersection Summary												
HCM 6th Ctrl Delay			19.6									
HCM 6th LOS			В									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

: Flower St & 7th St 03/20/2023

	۶	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<b>/</b>	<b>\</b>	<b>↓</b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		1>		*	<b>↑</b>						नाक	
Traffic Volume (veh/h)	0	267	134	94	392	0	0	0	0	51	885	87
Future Volume (veh/h)	0	267	134	94	392	0	0	0	0	51	885	87
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1683	1683	1683	1683	0				1683	1683	1683
Adj Flow Rate, veh/h	0	290	146	102	426	0				55	962	95
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	522	263	340	832	0				109	2049	206
Arrive On Green	0.00	0.49	0.49	0.49	0.49	0.00				0.38	0.38	0.38
Sat Flow, veh/h	0	1056	532	857	1683	0				285	5331	536
Grp Volume(v), veh/h	0	0	436	102	426	0				322	508	281
Grp Sat Flow(s), veh/h/ln	0	0	1588	857	1683	0				1669	1448	1587
Q Serve(q_s), s	0.0	0.0	17.2	8.5	15.4	0.0				13.3	11.8	11.9
Cycle Q Clear(g_c), s	0.0	0.0	17.2	25.7	15.4	0.0				13.3	11.8	11.9
Prop In Lane	0.00		0.33	1.00		0.00				0.17		0.34
Lane Grp Cap(c), veh/h	0	0	785	340	832	0				642	1113	610
V/C Ratio(X)	0.00	0.00	0.56	0.30	0.51	0.00				0.50	0.46	0.46
Avail Cap(c_a), veh/h	0	0	785	340	832	0				642	1113	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.60	0.60	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	15.9	24.8	15.4	0.0				21.1	20.7	20.7
Incr Delay (d2), s/veh	0.0	0.0	2.8	0.3	0.3	0.0				2.8	1.4	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	10.6	3.1	8.6	0.0				9.3	7.3	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	18.7	25.1	15.7	0.0				23.9	22.0	23.2
LnGrp LOS	Α	А	В	С	В	Α				С	С	С
Approach Vol, veh/h		436			528						1112	
Approach Delay, s/veh		18.7			17.5						22.9	
Approach LOS		В			В						С	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		50.0		40.0		50.0						
Change Period (Y+Rc), s		* 5.5		* 5.4		* 5.5						
Max Green Setting (Gmax), s		* 45		* 35		* 45						
Max Q Clear Time (g_c+I1), s		27.7		15.3		19.2						
Green Ext Time (p_c), s		3.0		7.2		3.0						
Intersection Summary												
HCM 6th Ctrl Delay			20.6									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>†</b>			<b>†</b>	7		<b>↑</b> }			र्सी के	
Traffic Volume (veh/h)	0	463	0	0	698	118	42	253	68	10	264	27
Future Volume (veh/h)	0	463	0	0	698	118	42	253	68	10	264	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1683	0	0	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	0	503	0	0	759	128	46	275	74	11	287	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	0	1032	0	0	1032	875	108	558	149	53	751	74
Arrive On Green	0.00	0.61	0.00	0.00	0.61	0.61	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	0	1683	0	0	1683	1427	219	2094	557	39	2817	278
Grp Volume(v), veh/h	0	503	0	0	759	128	205	0	190	172	0	155
Grp Sat Flow(s), veh/h/ln	0	1683	0	0	1683	1427	1439	0	1432	1652	0	1482
Q Serve(g_s), s	0.0	14.8	0.0	0.0	28.6	3.4	3.3	0.0	10.1	0.0	0.0	7.7
Cycle Q Clear(g_c), s	0.0	14.8	0.0	0.0	28.6	3.4	10.9	0.0	10.1	7.5	0.0	7.7
Prop In Lane	0.00	17.0	0.00	0.00	20.0	1.00	0.22	0.0	0.39	0.06	0.0	0.19
Lane Grp Cap(c), veh/h	0.00	1032	0.00	0.00	1032	875	433	0	382	483	0	395
V/C Ratio(X)	0.00	0.49	0.00	0.00	0.74	0.15	0.47	0.00	0.50	0.36	0.00	0.39
Avail Cap(c_a), veh/h	0.00	1032	0.00	0.00	1032	875	433	0.00	382	483	0.00	395
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.00	9.6	0.00	0.00	12.3	7.4	27.9	0.00	27.9	27.0	0.00	27.0
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.0	4.7	0.4	3.7	0.0	4.6	27.0	0.0	27.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	8.7	0.0	0.0	16.1	1.9	7.4	0.0	7.0	5.8	0.0	5.4
Unsig. Movement Delay, s/veh		0.7	0.0	0.0	10.1	1.9	7.4	0.0	7.0	5.0	0.0	5.4
LnGrp Delay(d),s/veh	0.0	11.0	0.0	0.0	16.9	7.7	31.6	0.0	32.5	29.0	0.0	29.9
LnGrp LOS	Ο.0	11.0 B	0.0 A	0.0 A	10.9 B	7.7 A	31.0 C	0.0 A	32.5 C	29.0 C	0.0 A	
	A		A	А		A	C		C	C		<u>C</u>
Approach Vol, veh/h		503			887			395			327	
Approach Delay, s/veh		11.0			15.6			32.0			29.4	
Approach LOS		В			В			С			С	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.6		29.4		60.6		29.4				
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4				
Max Green Setting (Gmax), s		* 55		* 24		* 55		* 24				
Max Q Clear Time (g_c+I1), s		30.6		9.7		16.8		12.9				
Green Ext Time (p_c), s		6.5		1.6		3.6		1.8				
Intersection Summary												
HCM 6th Ctrl Delay			19.7									
HCM 6th LOS			В									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					शा						<b>^</b>	7
Traffic Volume (veh/h)	0	0	0	133	1238	0	0	0	0	0	598	221
Future Volume (veh/h)	0	0	0	133	1238	0	0	0	0	0	598	221
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1683	1683	0				0	1683	1683
Adj Flow Rate, veh/h				145	1346	0				0	650	240
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				236	1853	0				0	2393	743
Arrive On Green				0.37	0.37	0.00				0.00	0.52	0.52
Sat Flow, veh/h				491	5202	0				0	4747	1427
Grp Volume(v), veh/h				426	1065	0				0	650	240
Grp Sat Flow(s), veh/h/ln				1526	1317	0				0	1532	1427
Q Serve(g_s), s				20.2	20.9	0.0				0.0	7.1	8.7
Cycle Q Clear(g_c), s				21.8	20.9	0.0				0.0	7.1	8.7
Prop In Lane				0.34		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				621	1468	0				0	2393	743
V/C Ratio(X)				0.69	0.73	0.00				0.00	0.27	0.32
Avail Cap(c_a), veh/h				748	1800	0				0	2393	743
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				24.6	24.3	0.0				0.0	12.0	12.4
Incr Delay (d2), s/veh				2.0	1.2	0.0				0.0	0.3	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				12.6	10.5	0.0				0.0	4.3	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				26.6	25.5	0.0				0.0	12.3	13.6
LnGrp LOS				С	С	Α				Α	В	В
Approach Vol, veh/h					1491						890	
Approach Delay, s/veh					25.8						12.7	
Approach LOS					С						В	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		38.4		51.6								
Change Period (Y+Rc), s		5.0		* 4.7								
Max Green Setting (Gmax), s		41.0		* 39								
Max Q Clear Time (g_c+l1), s		23.8		10.7								
Green Ext Time (p_c), s		9.6		5.9								
		7.0		J. 7								
Intersection Summary			20.0									
HCM 6th Ctrl Delay			20.9									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				- ሻ	ተተኈ			€î}•			^↑	7
Traffic Volume (veh/h)	0	0	0	56	1194	151	221	465	0	0	142	86
Future Volume (veh/h)	0	0	0	56	1194	151	221	465	0	0	142	86
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1683	1683	1683	1683	1683	1683	0	1683	1683
Adj Flow Rate, veh/h				61	1298	164	240	505	0	0	154	93
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				707	1822	230	398	794	0	0	1414	631
Arrive On Green				0.44	0.44	0.44	0.44	0.44	0.00	0.00	0.44	0.44
Sat Flow, veh/h				1603	4131	522	748	1872	0	0	3282	1427
Grp Volume(v), veh/h				61	963	499	349	396	0	0	154	93
Grp Sat Flow(s), veh/h/ln				1603	1532	1589	1089	1455	0	0	1599	1427
Q Serve(g_s), s				2.0	23.0	23.0	22.6	18.8	0.0	0.0	2.5	3.5
Cycle Q Clear(g_c), s				2.0	23.0	23.0	25.2	18.8	0.0	0.0	2.5	3.5
Prop In Lane				1.00	25.0	0.33	0.69	10.0	0.00	0.00	2.0	1.00
Lane Grp Cap(c), veh/h				707	1351	701	549	644	0.00	0.00	1414	631
V/C Ratio(X)				0.09	0.71	0.71	0.64	0.62	0.00	0.00	0.11	0.15
Avail Cap(c_a), veh/h				707	1351	701	549	644	0.00	0.00	1414	631
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				14.6	20.5	20.5	22.1	19.2	0.00	0.00	14.7	15.0
Incr Delay (d2), s/veh				0.2	3.2	6.1	2.4	1.8	0.0	0.0	0.2	0.5
Initial Q Delay(d3),s/veh				0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
%ile BackOfQ(95%),veh/ln				1.3	13.1	14.2	10.3	10.4	0.0	0.0	1.7	2.1
Unsig. Movement Delay, s/veh				1.3	13.1	14.2	10.3	10.4	0.0	0.0	1.7	۷.۱
LnGrp Delay(d),s/veh				14.9	23.7	26.6	24.5	21.0	0.0	0.0	14.9	15.5
1 3 . ,					23.7 C	20.0 C	24.3 C	21.0 C		0.0 A		
LnGrp LOS				В					A	A	B	В
Approach Vol, veh/h					1523			745			247	
Approach Delay, s/veh					24.3			22.6			15.1	
Approach LOS					С			С			В	
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		45.0		45.0				45.0				
Change Period (Y+Rc), s		* 5.3		* 5.2				* 5.2				
Max Green Setting (Gmax), s		* 40		* 40				* 40				
Max Q Clear Time (g_c+l1), s		25.0		5.5				27.2				
Green Ext Time (p_c), s		8.8		1.3				4.0				
Intersection Summary												
HCM 6th Ctrl Delay			22.9									
HCM 6th LOS			C									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

03/20/2023

	۶	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<b>/</b>	<b>&gt;</b>	<b>↓</b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		1>		*	<b>^</b>						सांक्रि	
Traffic Volume (veh/h)	0	341	175	132	500	0	0	0	0	69	1635	80
Future Volume (veh/h)	0	341	175	132	500	0	0	0	0	69	1635	80
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1683	1683	1683	1683	0				1683	1683	1683
Adj Flow Rate, veh/h	0	371	190	143	543	0				75	1777	87
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	495	254	220	795	0				91	2314	116
Arrive On Green	0.00	0.47	0.47	0.47	0.47	0.00				0.41	0.41	0.41
Sat Flow, veh/h	0	1049	537	764	1683	0				224	5690	286
Grp Volume(v), veh/h	0	0	561	143	543	0				560	882	497
Grp Sat Flow(s), veh/h/ln	0	0	1587	764	1683	0				1672	1448	1632
Q Serve(g_s), s	0.0	0.0	26.0	16.5	22.6	0.0				26.9	23.4	23.4
Cycle Q Clear(g_c), s	0.0	0.0	26.0	42.5	22.6	0.0				26.9	23.4	23.4
Prop In Lane	0.00		0.34	1.00		0.00				0.13		0.17
Lane Grp Cap(c), veh/h	0	0	749	220	795	0				680	1177	664
V/C Ratio(X)	0.00	0.00	0.75	0.65	0.68	0.00				0.82	0.75	0.75
Avail Cap(c_a), veh/h	0	0	749	220	795	0				680	1177	664
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.26	0.26	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	19.4	36.9	18.5	0.0				23.8	22.8	22.8
Incr Delay (d2), s/veh	0.0	0.0	6.8	1.8	0.6	0.0				10.8	4.4	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	15.6	4.7	10.8	0.0				17.8	13.0	15.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	26.1	38.7	19.1	0.0				34.7	27.2	30.4
LnGrp LOS	Α	Α	С	D	В	Α				С	С	С
Approach Vol, veh/h		561			686						1939	
Approach Delay, s/veh		26.1			23.2						30.2	
Approach LOS		С			С						С	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		48.0		42.0		48.0						
Change Period (Y+Rc), s		* 5.5		* 5.4		* 5.5						
Max Green Setting (Gmax), s		* 43		* 37		* 43						
Max Q Clear Time (g_c+l1), s		44.5		28.9		28.0						
Green Ext Time (p_c), s		0.0		6.2		3.3						
Intersection Summary												
HCM 6th Ctrl Delay			28.0									
HCM 6th LOS			C									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	ၨ	<b>→</b>	$\rightarrow$	•	<b>←</b>	•	•	<b>†</b>	<b>/</b>	<b>&gt;</b>	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>†</b>			<b>†</b>	7		<b>∱</b> }			414	
Traffic Volume (veh/h)	0	678	0	0	873	94	97	328	81	15	341	31
Future Volume (veh/h)	0	678	0	0	873	94	97	328	81	15	341	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1683	0	0	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	0	737	0	0	949	102	105	357	88	16	371	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	0	1032	0	0	1032	875	130	419	118	53	701	66
Arrive On Green	0.00	0.61	0.00	0.00	0.61	0.61	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	0	1683	0	0	1683	1427	278	1573	443	37	2629	247
Grp Volume(v), veh/h	0	737	0	0	949	102	262	0	288	217	0	204
Grp Sat Flow(s), veh/h/ln	0	1683	0	0	1683	1427	842	0	1452	1426	0	1487
Q Serve(g_s), s	0.0	27.1	0.0	0.0	45.0	2.7	13.5	0.0	16.3	0.5	0.0	10.5
Cycle Q Clear(g_c), s	0.0	27.1	0.0	0.0	45.0	2.7	24.0	0.0	16.3	16.9	0.0	10.5
Prop In Lane	0.00	27.1	0.00	0.00	70.0	1.00	0.40	0.0	0.31	0.07	0.0	0.17
Lane Grp Cap(c), veh/h	0.00	1032	0.00	0.00	1032	875	281	0	387	423	0	397
V/C Ratio(X)	0.00	0.71	0.00	0.00	0.92	0.12	0.93	0.00	0.74	0.51	0.00	0.52
Avail Cap(c_a), veh/h	0.00	1032	0.00	0.00	1032	875	281	0.00	387	423	0.00	397
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.59	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	12.0	0.0	0.0	15.4	7.2	36.8	0.0	30.2	27.8	0.0	28.1
Incr Delay (d2), s/veh	0.0	2.5	0.0	0.0	14.2	0.3	38.9	0.0	12.2	4.4	0.0	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	13.5	0.0	0.0	25.9	1.5	13.7	0.0	11.2	7.8	0.0	7.5
Unsig. Movement Delay, s/veh		13.5	0.0	0.0	20.7	1.0	13.7	0.0	11.2	7.0	0.0	7.5
LnGrp Delay(d),s/veh	0.0	14.5	0.0	0.0	29.7	7.5	75.7	0.0	42.4	32.2	0.0	32.8
LnGrp LOS	Α	В	Α	Α	C	7.5 A	73.7 E	Α	72.4 D	C	Α	32.0 C
Approach Vol, veh/h		737			1051			550			421	
Approach Delay, s/veh		14.5			27.5			58.3			32.5	
Approach LOS		14.5 B			27.5 C			56.5 E			32.3 C	
Approach LOS		D			C			E			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.6		29.4		60.6		29.4				
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4				
Max Green Setting (Gmax), s		* 55		* 24		* 55		* 24				
Max Q Clear Time (g_c+I1), s		47.0		18.9		29.1		26.0				
Green Ext Time (p_c), s		4.6		1.1		5.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			30.9									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4111						ተተተ	7
Traffic Volume (veh/h)	0	0	0	174	1451	0	0	0	0	0	1738	325
Future Volume (veh/h)	0	0	0	174	1451	0	0	0	0	0	1738	325
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1683	1683	0				0	1683	1683
Adj Flow Rate, veh/h				189	1577	0				0	1889	353
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				255	1732	0				0	2473	768
Arrive On Green				0.35	0.35	0.00				0.00	0.54	0.54
Sat Flow, veh/h				564	5106	0				0	4747	1427
Grp Volume(v), veh/h				501	1265	0				0	1889	353
Grp Sat Flow(s), veh/h/ln				1503	1317	0				0	1532	1427
Q Serve(g_s), s				28.8	27.4	0.0				0.0	29.0	13.7
Cycle Q Clear(g_c), s				29.0	27.4	0.0				0.0	29.0	13.7
Prop In Lane				0.38		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				587	1400	0				0	2473	768
V/C Ratio(X)				0.85	0.90	0.00				0.00	0.76	0.46
Avail Cap(c_a), veh/h				590	1405	0				0	2473	768
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				28.1	27.6	0.0				0.0	16.3	12.8
Incr Delay (d2), s/veh				11.5	8.5	0.0				0.0	2.3	2.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				17.5	14.4	0.0				0.0	14.9	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				39.6	36.1	0.0				0.0	18.6	14.7
LnGrp LOS				D	D	Α				А	В	В
Approach Vol, veh/h					1766						2242	
Approach Delay, s/veh					37.1						18.0	
Approach LOS					D						В	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		36.9		53.1								
Change Period (Y+Rc), s		5.0		* 4.7								
Max Green Setting (Gmax), s		32.0		* 48								
Max Q Clear Time (g_c+l1), s		31.0		31.0								
Green Ext Time (p_c), s		0.9		13.4								
Intersection Summary												
HCM 6th Ctrl Delay			26.4									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	۶	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	~	<b>/</b>	ţ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				ሻ	ተተኈ			414			^↑	7
Traffic Volume (veh/h)	0	0	0	102	1091	87	177	359	0	0	285	132
Future Volume (veh/h)	0	0	0	102	1091	87	177	359	0	0	285	132
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1683	1683	1683	1683	1683	1683	0	1683	1683
Adj Flow Rate, veh/h				111	1186	95	192	390	0	0	310	143
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				725	1961	157	337	728	0	0	1379	615
Arrive On Green				0.45	0.45	0.45	0.43	0.43	0.00	0.00	0.43	0.43
Sat Flow, veh/h				1603	4337	347	620	1764	0	0	3282	1427
Grp Volume(v), veh/h				111	838	443	256	326	0	0	310	143
Grp Sat Flow(s), veh/h/ln				1603	1532	1621	853	1455	0	0	1599	1427
Q Serve(g_s), s				3.7	18.6	18.6	19.2	14.8	0.0	0.0	5.5	5.7
Cycle Q Clear(g_c), s				3.7	18.6	18.6	24.7	14.8	0.0	0.0	5.5	5.7
Prop In Lane				1.00		0.21	0.75		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				725	1385	733	438	627	0	0	1379	615
V/C Ratio(X)				0.15	0.60	0.60	0.59	0.52	0.00	0.00	0.22	0.23
Avail Cap(c_a), veh/h				725	1385	733	438	627	0	0	1379	615
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				14.5	18.6	18.6	23.3	18.8	0.0	0.0	16.1	16.2
Incr Delay (d2), s/veh				0.4	2.0	3.7	2.0	0.8	0.0	0.0	0.4	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				2.5	10.8	11.8	8.2	8.5	0.0	0.0	3.6	3.5
Unsig. Movement Delay, s/veh												0.0
LnGrp Delay(d),s/veh				15.0	20.5	22.3	25.3	19.5	0.0	0.0	16.5	17.1
LnGrp LOS				В	С	С	С	В	А	А	В	В
Approach Vol, veh/h					1392	-		582			453	
Approach Delay, s/veh					20.7			22.1			16.7	
Approach LOS					C			C			В	
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		46.0		44.0				44.0				
Change Period (Y+Rc), s		* 5.3		* 5.2				* 5.2				
Max Green Setting (Gmax), s		* 41		* 39				* 39				
Max Q Clear Time (g_c+l1), s		20.6		7.7				26.7				
Green Ext Time (p_c), s		9.4		2.6				3.2				
Intersection Summary			00.0									
HCM 6th Ctrl Delay			20.3									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ĵ»		¥	<b>†</b>						नाा	
Traffic Volume (veh/h)	0	335	173	116	561	0	0	0	0	134	1174	225
Future Volume (veh/h)	0	335	173	116	561	0	0	0	0	134	1174	225
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1683	1683	1683	1683	0				1683	1683	1683
Adj Flow Rate, veh/h	0	364	188	126	610	0				146	1276	245
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	529	273	266	851	0				186	1740	342
Arrive On Green	0.00	0.51	0.51	0.51	0.51	0.00				0.37	0.37	0.37
Sat Flow, veh/h	0	1046	540	770	1683	0				497	4660	915
Grp Volume(v), veh/h	0	0	552	126	610	0				487	773	407
Grp Sat Flow(s),veh/h/ln	0	0	1586	770	1683	0				1658	1448	1519
Q Serve(g_s), s	0.0	0.0	23.8	13.3	25.3	0.0				23.4	20.6	20.6
Cycle Q Clear(g_c), s	0.0	0.0	23.8	37.1	25.3	0.0				23.4	20.6	20.6
Prop In Lane	0.00		0.34	1.00		0.00				0.30		0.60
Lane Grp Cap(c), veh/h	0	0	802	266	851	0				619	1081	567
V/C Ratio(X)	0.00	0.00	0.69	0.47	0.72	0.00				0.79	0.72	0.72
Avail Cap(c_a), veh/h	0	0	802	266	851	0				619	1081	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.18	0.18	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	16.9	30.9	17.3	0.0				25.0	24.1	24.1
Incr Delay (d2), s/veh	0.0	0.0	4.8	0.2	0.5	0.0				9.7	4.1	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	14.0	3.5	11.3	0.0				15.8	11.8	13.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	21.7	31.2	17.8	0.0				34.7	28.2	31.7
LnGrp LOS	Α	Α	С	С	В	Α				С	С	С
Approach Vol, veh/h		552			736						1667	
Approach Delay, s/veh		21.7			20.1						31.0	
Approach LOS		С			С						С	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		51.0		39.0		51.0						
Change Period (Y+Rc), s		* 5.5		* 5.4		* 5.5						
Max Green Setting (Gmax), s		* 46		* 34		* 46						
Max Q Clear Time (q_c+l1), s		39.1		25.4		25.8						
Green Ext Time (p_c), s		2.6		6.0		3.7						
Intersection Summary												
HCM 6th Ctrl Delay			26.5									
HCM 6th LOS			C									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>†</b>			<b>†</b>	7		<b>↑</b> ↑			र्सी के	
Traffic Volume (veh/h)	0	627	0	0	908	134	46	278	104	11	287	30
Future Volume (veh/h)	0	627	0	0	908	134	46	278	104	11	287	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1683	0	0	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	0	682	0	0	987	146	50	302	113	12	312	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	0	1032	0	0	1032	875	100	504	189	53	746	77
Arrive On Green	0.00	0.61	0.00	0.00	0.61	0.61	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	0	1683	0	0	1683	1427	193	1890	710	40	2797	289
Grp Volume(v), veh/h	0	682	0	0	987	146	242	0	223	188	0	169
Grp Sat Flow(s), veh/h/ln	0	1683	0	0	1683	1427	1389	0	1404	1646	0	1480
Q Serve(g_s), s	0.0	23.7	0.0	0.0	49.3	4.0	5.8	0.0	12.5	0.0	0.0	8.5
Cycle Q Clear(g_c), s	0.0	23.7	0.0	0.0	49.3	4.0	14.3	0.0	12.5	8.3	0.0	8.5
Prop In Lane	0.00	25.7	0.00	0.00	т7.5	1.00	0.21	0.0	0.51	0.06	0.0	0.20
Lane Grp Cap(c), veh/h	0.00	1032	0.00	0.00	1032	875	419	0	374	482	0	395
V/C Ratio(X)	0.00	0.66	0.00	0.00	0.96	0.17	0.58	0.00	0.60	0.39	0.00	0.43
Avail Cap(c_a), veh/h	0.00	1032	0.00	0.00	1032	875	419	0.00	374	482	0.00	395
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.68	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.00	11.3	0.00	0.00	16.3	7.5	29.1	0.00	28.8	27.2	0.00	27.3
Incr Delay (d2), s/veh	0.0	2.3	0.0	0.0	19.2	0.4	5.7	0.0	6.9	2.4	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	12.3	0.0	0.0	29.3	2.2	9.0	0.0	8.4	6.5	0.0	6.0
Unsig. Movement Delay, s/veh		12.3	0.0	0.0	29.3	۷.۷	9.0	0.0	0.4	0.5	0.0	0.0
	0.0	13.6	0.0	0.0	35.5	7.9	34.8	0.0	35.6	29.6	0.0	30.7
LnGrp Delay(d),s/veh	Ο.0	13.0 B	0.0 A	0.0 A	33.3 D	7.9 A	34.0 C	0.0 A	33.0 D	29.0 C	0.0 A	
LnGrp LOS	A		A	A		A	C		U	C		<u>C</u>
Approach Vol, veh/h		682			1133			465			357	
Approach Delay, s/veh		13.6			31.9			35.2			30.1	
Approach LOS		В			С			D			С	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.6		29.4		60.6		29.4				
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4				
Max Green Setting (Gmax), s		* 55		* 24		* 55		* 24				
Max Q Clear Time (q_c+l1), s		51.3		10.5		25.7		16.3				
Green Ext Time (p_c), s		2.6		1.7		5.3		1.7				
Intersection Summary												
HCM 6th Ctrl Delay			27.5									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	ᄼ	<b>→</b>	$\rightarrow$	•	<b>←</b>	•	4	<b>†</b>	<i>&gt;</i>	<b>&gt;</b>	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4111						ተተተ	7
Traffic Volume (veh/h)	0	0	0	151	1803	0	0	0	0	0	828	313
Future Volume (veh/h)	0	0	0	151	1803	0	0	0	0	0	828	313
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1683	1683	0				0	1683	1683
Adj Flow Rate, veh/h				164	1960	0				0	900	340
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				232	2310	0				0	2021	627
Arrive On Green				0.45	0.45	0.00				0.00	0.44	0.44
Sat Flow, veh/h				401	5320	0.00				0.00	4747	1427
Grp Volume(v), veh/h				608	1516	0				0	900	340
Grp Sat Flow(s), veh/h/ln				1555	1317	0				0	1532	1427
Q Serve(q_s), s				30.0	30.7	0.0				0.0	12.3	15.8
Cycle Q Clear(g_c), s				31.6	30.7	0.0				0.0	12.3	15.8
Prop In Lane				0.27	30.7	0.00				0.00	12.3	1.00
Lane Grp Cap(c), veh/h				754	1788	0.00				0.00	2021	627
V/C Ratio(X)				0.81	0.85	0.00				0.00	0.45	0.54
Avail Cap(c_a), veh/h				776	1844	0.00				0.00	2021	627
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
				1.00	1.00	0.00				0.00	1.00	1.00
Upstream Filter(I)				22.1	21.9	0.00				0.00	17.6	
Uniform Delay (d), s/veh					3.8							18.5
Incr Delay (d2), s/veh				6.1		0.0				0.0	0.7	3.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				17.8	14.5	0.0				0.0	7.7	9.4
Unsig. Movement Delay, s/veh				20.2	25.7	0.0				0.0	10.2	21.0
LnGrp Delay(d),s/veh				28.2	25.7	0.0				0.0	18.3	21.9
LnGrp LOS				С	С	A				A	B	С
Approach Vol, veh/h					2124						1240	
Approach Delay, s/veh					26.4						19.3	
Approach LOS					С						В	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		45.7		44.3								
Change Period (Y+Rc), s		5.0		* 4.7								
Max Green Setting (Gmax), s		42.0		* 38								
Max Q Clear Time (q_c+l1), s		33.6		17.8								
Green Ext Time (p_c), s		7.1		7.8								
Intersection Summary												
HCM 6th Ctrl Delay			23.8									
HCM 6th LOS			23.0 C									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	۶	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	/	-	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				ሻ	<b>↑</b> ↑₽			414				7
Traffic Volume (veh/h)	0	0	0	72	1753	0	289	541	0	0	136	83
Future Volume (veh/h)	0	0	0	72	1753	0	289	541	0	0	136	83
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1683	1683	1683	1683	1683	1683	0	1683	1683
Adj Flow Rate, veh/h				78	1905	0	314	588	0	0	148	90
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				746	2139	0	402	720	0	0	1336	596
Arrive On Green				0.47	0.47	0.00	0.42	0.42	0.00	0.00	0.42	0.42
Sat Flow, veh/h				1603	4747	0	795	1799	0	0	3282	1427
Grp Volume(v), veh/h				78	1905	0	420	482	0	0	148	90
Grp Sat Flow(s), veh/h/ln				1603	1532	0	1063	1455	0	0	1599	1427
Q Serve(g_s), s				2.5	34.1	0.0	32.0	26.0	0.0	0.0	2.5	3.5
Cycle Q Clear(g_c), s				2.5	34.1	0.0	34.6	26.0	0.0	0.0	2.5	3.5
Prop In Lane				1.00		0.00	0.75		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				746	2139	0	514	608	0	0	1336	596
V/C Ratio(X)				0.10	0.89	0.00	0.82	0.79	0.00	0.00	0.11	0.15
Avail Cap(c_a), veh/h				746	2139	0	514	608	0	0	1336	596
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				13.5	22.0	0.0	26.5	22.8	0.0	0.0	16.0	16.3
Incr Delay (d2), s/veh				0.3	6.1	0.0	9.9	7.1	0.0	0.0	0.2	0.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				1.6	18.4	0.0	14.7	14.7	0.0	0.0	1.7	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				13.8	28.0	0.0	36.5	29.9	0.0	0.0	16.2	16.8
LnGrp LOS				В	С	А	D	С	А	А	В	В
Approach Vol, veh/h					1983			902			238	
Approach Delay, s/veh					27.5			33.0			16.4	
Approach LOS					C C			C			В	
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		47.2		42.8				42.8				
		* 5.3		* 5.2				* 5.2				
Change Period (Y+Rc), s		* 42						* 38				
Max Green Setting (Gmax), s				* 38								
Max Q Clear Time (g_c+l1), s		36.1		5.5				36.6				
Green Ext Time (p_c), s		5.0		1.2				0.6				
Intersection Summary			00.0									
HCM 6th Ctrl Delay			28.2									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

: Flower St & 7th St 03/21/2023

	۶	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	/	<b>&gt;</b>	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		1>		*	<b>†</b>						नाक	
Traffic Volume (veh/h)	0	424	263	161	707	0	0	0	0	174	2085	156
Future Volume (veh/h)	0	424	263	161	707	0	0	0	0	174	2085	156
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1683	1683	1683	1683	0				1683	1683	1683
Adj Flow Rate, veh/h	0	461	286	175	768	0				189	2266	170
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	481	298	105	832	0				160	2054	157
Arrive On Green	0.00	0.49	0.49	0.49	0.49	0.00				0.38	0.38	0.38
Sat Flow, veh/h	0	972	603	643	1683	0				415	5344	409
Grp Volume(v), veh/h	0	0	747	175	768	0				757	1198	670
Grp Sat Flow(s), veh/h/ln	0	0	1575	643	1683	0				1663	1448	1610
Q Serve(g_s), s	0.0	0.0	41.1	3.4	38.2	0.0				34.6	34.6	34.6
Cycle Q Clear(q_c), s	0.0	0.0	41.1	44.5	38.2	0.0				34.6	34.6	34.6
Prop In Lane	0.00		0.38	1.00		0.00				0.25		0.25
Lane Grp Cap(c), veh/h	0	0	779	105	832	0				639	1113	619
V/C Ratio(X)	0.00	0.00	0.96	1.67	0.92	0.00				1.18	1.08	1.08
Avail Cap(c_a), veh/h	0	0	779	105	832	0				639	1113	619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	21.9	44.6	21.2	0.0				27.7	27.7	27.7
Incr Delay (d2), s/veh	0.0	0.0	23.7	306.9	1.9	0.0				98.3	50.0	60.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	26.1	17.3	16.1	0.0				44.1	27.5	32.5
Unsig. Movement Delay, s/veh	l											
LnGrp Delay(d),s/veh	0.0	0.0	45.6	351.5	23.1	0.0				126.0	77.7	88.1
LnGrp LOS	Α	Α	D	F	С	Α				F	F	F
Approach Vol, veh/h		747			943						2625	
Approach Delay, s/veh		45.6			84.0						94.3	
Approach LOS		D			F						F	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		50.0		40.0		50.0						
Change Period (Y+Rc), s		* 5.5		* 5.4		* 5.5						
Max Green Setting (Gmax), s		* 45		* 35		* 45						
Max Q Clear Time (q_c+l1), s		46.5		36.6		43.1						
Green Ext Time (p_c), s		0.0		0.0		0.8						
Intersection Summary												
HCM 6th Ctrl Delay			83.6									
HCM 6th LOS			F									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	۶	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	/	<b>&gt;</b>	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>+</b>			<b>†</b>	7		<b>∱</b> }			र्सी के	
Traffic Volume (veh/h)	0	892	0	0	1131	110	106	359	113	16	365	34
Future Volume (veh/h)	0	892	0	0	1131	110	106	359	113	16	365	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1683	0	0	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	0	970	0	0	1229	120	115	390	123	17	397	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	0	1032	0	0	1032	875	120	374	143	49	642	66
Arrive On Green	0.00	0.61	0.00	0.00	0.61	0.61	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	0	1683	0	0	1683	1427	243	1403	536	21	2407	246
Grp Volume(v), veh/h	0	970	0	0	1229	120	299	0	329	227	0	224
Grp Sat Flow(s), veh/h/ln	0	1683	0	0	1683	1427	747	0	1435	1187	0	1488
Q Serve(g_s), s	0.0	47.3	0.0	0.0	55.2	3.2	12.3	0.0	19.6	1.2	0.0	11.7
Cycle Q Clear(g_c), s	0.0	47.3	0.0	0.0	55.2	3.2	24.0	0.0	19.6	20.8	0.0	11.7
Prop In Lane	0.00	47.0	0.00	0.00	00.2	1.00	0.38	0.0	0.37	0.07	0.0	0.17
Lane Grp Cap(c), veh/h	0.00	1032	0.00	0.00	1032	875	255	0	383	359	0	397
V/C Ratio(X)	0.00	0.94	0.00	0.00	1.19	0.14	1.17	0.00	0.86	0.63	0.00	0.56
Avail Cap(c_a), veh/h	0.00	1032	0.00	0.00	1032	875	255	0.00	383	359	0.00	397
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.20	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.00	15.9	0.0	0.00	17.4	7.3	38.1	0.0	31.4	28.3	0.00	28.5
Incr Delay (d2), s/veh	0.0	4.6	0.0	0.0	95.5	0.3	111.7	0.0	21.5	8.2	0.0	5.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	19.8	0.0	0.0	64.8	1.7	21.3	0.0	13.8	8.5	0.0	8.2
Unsig. Movement Delay, s/veh		19.0	0.0	0.0	04.0	1.7	21.3	0.0	13.0	0.0	0.0	0.2
	0.0	20.5	0.0	0.0	112.9	7.7	149.8	0.0	52.9	36.5	0.0	34.2
LnGrp Delay(d),s/veh		20.5 C		0.0 A	112.9 F		149.0 F					
LnGrp LOS	A		A	A		A	Г	A (20	D	D	A 451	С
Approach Vol, veh/h		970			1349			628			451	
Approach Delay, s/veh		20.5			103.5			99.0			35.3	
Approach LOS		С			ŀ			F			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.6		29.4		60.6		29.4				
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4				
Max Green Setting (Gmax), s		* 55		* 24		* 55		* 24				
Max Q Clear Time (g_c+I1), s		57.2		22.8		49.3		26.0				
Green Ext Time (p_c), s		0.0		0.3		3.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			69.9									
HCM 6th LOS			Ε									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	۶	<b>→</b>	•	•	-	4	4	<b>†</b>	<i>&gt;</i>	<b>/</b>	<b>+</b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					शा						<b>^</b>	7
Traffic Volume (veh/h)	0	0	0	219	1906	0	0	0	0	0	2228	433
Future Volume (veh/h)	0	0	0	219	1906	0	0	0	0	0	2228	433
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1683	1683	0				0	1683	1683
Adj Flow Rate, veh/h				238	2072	0				0	2422	471
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				255	1802	0				0	2415	750
Arrive On Green				0.37	0.37	0.00				0.00	0.53	0.53
Sat Flow, veh/h				547	5128	0				0	4747	1427
Grp Volume(v), veh/h				656	1654	0				0	2422	471
Grp Sat Flow(s),veh/h/ln				1509	1317	0				0	1532	1427
Q Serve(g_s), s				33.0	33.0	0.0				0.0	47.3	21.0
Cycle Q Clear(g_c), s				33.0	33.0	0.0				0.0	47.3	21.0
Prop In Lane				0.36	00.0	0.00				0.00	17.0	1.00
Lane Grp Cap(c), veh/h				608	1449	0				0	2415	750
V/C Ratio(X)				1.08	1.14	0.00				0.00	1.00	0.63
Avail Cap(c_a), veh/h				608	1449	0.00				0.00	2415	750
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				30.0	28.5	0.0				0.0	21.4	15.1
Incr Delay (d2), s/veh				59.9	72.4	0.0				0.0	19.0	4.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				32.9	29.2	0.0				0.0	26.7	11.5
Unsig. Movement Delay, s/veh				52.7	27.2	0.0				0.0	20.7	11.0
LnGrp Delay(d),s/veh				89.9	100.9	0.0				0.0	40.3	19.1
LnGrp LOS				67.7 F	F	Α				Α	F	В
Approach Vol, veh/h				<u>'</u>	2310						2893	
Approach Delay, s/veh					97.8						36.9	
Approach LOS					97.0 F						30.9 D	
Approach LOS											D	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		38.0		52.0								
Change Period (Y+Rc), s		5.0		* 4.7								
Max Green Setting (Gmax), s		33.0		* 47								
Max Q Clear Time (g_c+l1), s		35.0		49.3								
Green Ext Time (p_c), s		0.0		0.0								
Intersection Summary												
HCM 6th Ctrl Delay			63.9									
HCM 6th LOS			Ε									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	۶	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	~	<b>&gt;</b>	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				ሻ	ተተኈ			414				7
Traffic Volume (veh/h)	0	0	0	155	1526	95	186	417	0	0	301	140
Future Volume (veh/h)	0	0	0	155	1526	95	186	417	0	0	301	140
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1683	1683	1683	1683	1683	1683	0	1683	1683
Adj Flow Rate, veh/h				168	1659	103	202	453	0	0	327	152
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				796	2197	136	286	654	0	0	1237	552
Arrive On Green				0.50	0.50	0.50	0.39	0.39	0.00	0.00	0.39	0.39
Sat Flow, veh/h				1603	4423	274	562	1767	0	0	3282	1427
Grp Volume(v), veh/h				168	1149	613	285	370	0	0	327	152
Grp Sat Flow(s), veh/h/ln				1603	1532	1634	797	1455	0	0	1599	1427
Q Serve(g_s), s				5.3	27.2	27.2	25.5	18.8	0.0	0.0	6.3	6.6
Cycle Q Clear(g_c), s				5.3	27.2	27.2	31.8	18.8	0.0	0.0	6.3	6.6
Prop In Lane				1.00	21.2	0.17	0.71	10.0	0.00	0.00	0.0	1.00
Lane Grp Cap(c), veh/h				796	1522	812	377	563	0.00	0.00	1237	552
V/C Ratio(X)				0.21	0.75	0.76	0.76	0.66	0.00	0.00	0.26	0.28
Avail Cap(c_a), veh/h				796	1522	812	377	563	0.00	0.00	1237	552
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				12.7	18.2	18.3	29.6	22.7	0.00	0.00	18.9	18.9
Incr Delay (d2), s/veh				0.6	3.5	6.5	8.6	2.8	0.0	0.0	0.5	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				3.5	14.7	16.4	10.9	10.8	0.0	0.0	4.2	4.1
Unsig. Movement Delay, s/veh				3.5	14.7	10.4	10.7	10.0	0.0	0.0	4.2	4.1
LnGrp Delay(d),s/veh				13.3	21.8	24.7	38.2	25.5	0.0	0.0	19.4	20.2
LnGrp LOS				13.3 B	21.0 C	24.7 C	30.2 D	25.5 C	Α	Α	19.4 B	20.2 C
				D		C	U		^			
Approach Vol, veh/h					1930			655			479	
Approach LOS					22.0 C			31.0			19.6	
Approach LOS					C			С			В	
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		50.0		40.0				40.0				
Change Period (Y+Rc), s		* 5.3		* 5.2				* 5.2				
Max Green Setting (Gmax), s		* 45		* 35				* 35				
Max Q Clear Time (g_c+l1), s		29.2		8.6				33.8				
Green Ext Time (p_c), s		11.0		2.7				0.5				
Intersection Summary												
HCM 6th Ctrl Delay			23.5									
HCM 6th LOS			C									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

03/21/2023

	۶	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<b>/</b>	<b>&gt;</b>	<b>↓</b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		1>		*	<b>†</b>						सांक्रि	
Traffic Volume (veh/h)	0	335	176	118	561	0	0	0	0	134	1175	225
Future Volume (veh/h)	0	335	176	118	561	0	0	0	0	134	1175	225
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1683	1683	1683	1683	0				1683	1683	1683
Adj Flow Rate, veh/h	0	364	191	128	610	0				146	1277	245
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	526	276	264	851	0				186	1740	341
Arrive On Green	0.00	0.51	0.51	0.51	0.51	0.00				0.37	0.37	0.37
Sat Flow, veh/h	0	1040	546	768	1683	0				497	4661	915
Grp Volume(v), veh/h	0	0	555	128	610	0				487	774	407
Grp Sat Flow(s), veh/h/ln	0	0	1585	768	1683	0				1658	1448	1519
Q Serve(q_s), s	0.0	0.0	24.0	13.7	25.3	0.0				23.5	20.6	20.6
Cycle Q Clear(g_c), s	0.0	0.0	24.0	37.7	25.3	0.0				23.5	20.6	20.6
Prop In Lane	0.00		0.34	1.00		0.00				0.30		0.60
Lane Grp Cap(c), veh/h	0	0	801	264	851	0				619	1081	567
V/C Ratio(X)	0.00	0.00	0.69	0.49	0.72	0.00				0.79	0.72	0.72
Avail Cap(c_a), veh/h	0	0	801	264	851	0				619	1081	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.18	0.18	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	16.9	31.3	17.3	0.0				25.0	24.1	24.1
Incr Delay (d2), s/veh	0.0	0.0	4.9	0.3	0.5	0.0				9.8	4.1	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	14.1	3.6	11.3	0.0				15.8	11.8	13.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	21.8	31.5	17.8	0.0				34.8	28.2	31.7
LnGrp LOS	Α	Α	С	С	В	Α				С	С	С
Approach Vol, veh/h		555			738						1668	
Approach Delay, s/veh		21.8			20.2						31.0	
Approach LOS		С			С						С	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		51.0		39.0		51.0						
Change Period (Y+Rc), s		* 5.5		* 5.4		* 5.5						
Max Green Setting (Gmax), s		* 46		* 34		* 46						
Max Q Clear Time (g_c+l1), s		39.7		25.5		26.0						
Green Ext Time (p_c), s		2.4		5.9		3.7						
Intersection Summary												
HCM 6th Ctrl Delay			26.6									
HCM 6th LOS			C									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	ၨ	<b>→</b>	$\rightarrow$	•	<b>←</b>	•	•	<b>†</b>	~	<b>&gt;</b>	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>†</b>			<b>†</b>	7		<b>↑</b> ↑			र्सी के	
Traffic Volume (veh/h)	0	627	0	0	910	134	46	278	104	11	289	30
Future Volume (veh/h)	0	627	0	0	910	134	46	278	104	11	289	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1683	0	0	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	0	682	0	0	989	146	50	302	113	12	314	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	0	1032	0	0	1032	875	99	503	189	53	746	77
Arrive On Green	0.00	0.61	0.00	0.00	0.61	0.61	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	0	1683	0	0	1683	1427	192	1887	710	40	2799	288
Grp Volume(v), veh/h	0	682	0	0	989	146	242	0	223	189	0	170
Grp Sat Flow(s), veh/h/ln	0	1683	0	0	1683	1427	1385	0	1404	1647	0	1480
Q Serve(g_s), s	0.0	23.7	0.0	0.0	49.6	4.0	5.9	0.0	12.5	0.0	0.0	8.6
Cycle Q Clear(g_c), s	0.0	23.7	0.0	0.0	49.6	4.0	14.4	0.0	12.5	8.4	0.0	8.6
Prop In Lane	0.00	20.7	0.00	0.00	47.0	1.00	0.21	0.0	0.51	0.06	0.0	0.19
Lane Grp Cap(c), veh/h	0.00	1032	0.00	0.00	1032	875	418	0	374	482	0	395
V/C Ratio(X)	0.00	0.66	0.00	0.00	0.96	0.17	0.58	0.00	0.60	0.39	0.00	0.43
Avail Cap(c_a), veh/h	0.00	1032	0.00	0.00	1032	875	418	0.00	374	482	0.00	395
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.67	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.00	11.3	0.00	0.0	16.3	7.5	29.2	0.0	28.8	27.3	0.00	27.3
Incr Delay (d2), s/veh	0.0	2.2	0.0	0.0	19.5	0.4	5.7	0.0	6.9	2.4	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	12.3	0.0	0.0	29.5	2.2	9.0	0.0	8.4	6.5	0.0	6.0
Unsig. Movement Delay, s/veh		12.3	0.0	0.0	27.0	۷.۷	7.0	0.0	0.4	0.5	0.0	0.0
LnGrp Delay(d),s/veh	0.0	13.6	0.0	0.0	35.8	7.9	34.9	0.0	35.6	29.7	0.0	30.7
LnGrp LOS	Α	13.0 B	Α	0.0 A	35.6 D	7.9 A	34.9 C	Α	35.0 D	29.7 C	Α	30.7 C
	A		A	A		A	C		U	C		
Approach Vol, veh/h		682			1135			465			359	
Approach Delay, s/veh		13.6			32.3			35.2			30.2	
Approach LOS		В			С			D			С	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.6		29.4		60.6		29.4				
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4				
Max Green Setting (Gmax), s		* 55		* 24		* 55		* 24				
Max Q Clear Time (g_c+I1), s		51.6		10.6		25.7		16.4				
Green Ext Time (p_c), s		2.5		1.7		5.3		1.7				
Intersection Summary												
HCM 6th Ctrl Delay			27.7									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	۶	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<b>/</b>	-	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4111						ተተተ	7
Traffic Volume (veh/h)	0	0	0	155	1848	0	0	0	0	0	835	313
Future Volume (veh/h)	0	0	0	155	1848	0	0	0	0	0	835	313
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1683	1683	0				0	1683	1683
Adj Flow Rate, veh/h				168	2009	0				0	908	340
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				237	2366	0				0	1970	611
Arrive On Green				0.46	0.46	0.00				0.00	0.43	0.43
Sat Flow, veh/h				402	5319	0				0	4747	1427
Grp Volume(v), veh/h				623	1554	0				0	908	340
Grp Sat Flow(s), veh/h/ln				1555	1317	0				0	1532	1427
Q Serve(g_s), s				30.7	31.3	0.0				0.0	12.7	16.1
Cycle Q Clear(g_c), s				32.3	31.3	0.0				0.0	12.7	16.1
Prop In Lane				0.27		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				772	1832	0				0	1970	611
V/C Ratio(X)				0.81	0.85	0.00				0.00	0.46	0.56
Avail Cap(c_a), veh/h				794	1888	0				0	1970	611
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				21.5	21.3	0.0				0.0	18.3	19.3
Incr Delay (d2), s/veh				6.1	3.8	0.0				0.0	0.8	3.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				18.0	14.7	0.0				0.0	7.9	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				27.6	25.1	0.0				0.0	19.1	22.9
LnGrp LOS				С	С	А				А	В	С
Approach Vol, veh/h					2177						1248	
Approach Delay, s/veh					25.8						20.1	
Approach LOS					С						С	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		46.7		43.3								
Change Period (Y+Rc), s		5.0		* 4.7								
Max Green Setting (Gmax), s		43.0		* 37								
Max Q Clear Time (q_c+l1), s		34.3		18.1								
Green Ext Time (p_c), s		7.5		7.7								
		7.0		7.7								
Intersection Summary			22.7									
HCM 6th Ctrl Delay			23.7									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	۶	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<i>&gt;</i>	<b>/</b>	ţ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				- ሻ	ተተኈ			€î}•			^↑	7
Traffic Volume (veh/h)	0	0	0	72	1755	165	298	541	0	0	154	95
Future Volume (veh/h)	0	0	0	72	1755	165	298	541	0	0	154	95
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1683	1683	1683	1683	1683	1683	0	1683	1683
Adj Flow Rate, veh/h				78	1908	179	324	588	0	0	167	103
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				778	2076	194	381	670	0	0	1272	567
Arrive On Green				0.49	0.49	0.49	0.40	0.40	0.00	0.00	0.40	0.40
Sat Flow, veh/h				1603	4276	399	779	1761	0	0	3282	1427
Grp Volume(v), veh/h				78	1364	723	419	493	0	0	167	103
Grp Sat Flow(s), veh/h/ln				1603	1532	1612	1008	1455	0	0	1599	1427
Q Serve(g_s), s				2.4	37.2	37.7	32.8	27.7	0.0	0.0	3.0	4.2
Cycle Q Clear(g_c), s				2.4	37.2	37.7	35.8	27.7	0.0	0.0	3.0	4.2
Prop In Lane				1.00	31.2	0.25	0.77	21.1	0.00	0.00	3.0	1.00
Lane Grp Cap(c), veh/h				778	1488	782	472	579	0.00	0.00	1272	567
V/C Ratio(X)				0.10	0.92	0.92	0.89	0.85	0.00	0.00	0.13	0.18
Avail Cap(c_a), veh/h				778	1488	782	472	579	0.00	0.00	1272	567
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				12.5	21.5	21.6	29.3	24.7	0.00	0.00	17.2	17.6
Incr Delay (d2), s/veh				0.3	10.4	18.3		11.6	0.0	0.0	0.2	0.7
				0.0		0.0	18.4 0.0	0.0	0.0	0.0	0.2	0.7
Initial Q Delay(d3),s/veh					0.0			16.3				
%ile BackOfQ(95%),veh/ln				1.6	20.6	23.8	16.7	10.3	0.0	0.0	2.0	2.6
Unsig. Movement Delay, s/veh				10.0	21.0	20.0	477	2/2	0.0	0.0	17 /	10.0
LnGrp Delay(d),s/veh				12.8	31.9	39.9	47.7	36.3	0.0	0.0	17.4	18.3
LnGrp LOS				В	C	D	D	D 210	A	A	В	В
Approach Vol, veh/h					2165			912			270	
Approach Delay, s/veh					33.9			41.5			17.8	
Approach LOS					С			D			В	
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		49.0		41.0				41.0				
Change Period (Y+Rc), s		* 5.3		* 5.2				* 5.2				
Max Green Setting (Gmax), s		* 44		* 36				* 36				
Max Q Clear Time (g_c+l1), s		39.7		6.2				37.8				
Green Ext Time (p_c), s		3.6		1.4				0.0				
Intersection Summary												
HCM 6th Ctrl Delay			34.7									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	۶	<b>→</b>	•	•	<b>—</b>	•	•	†	<b>/</b>	<b>/</b>	<b>↓</b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ĵ»		ሻ	<b>†</b>						नााः	
Traffic Volume (veh/h)	0	424	275	169	707	0	0	0	0	174	2088	156
Future Volume (veh/h)	0	424	275	169	707	0	0	0	0	174	2088	156
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1683	1683	1683	1683	0				1683	1683	1683
Adj Flow Rate, veh/h	0	461	299	184	768	0				189	2270	170
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	471	306	94	832	0				159	2055	157
Arrive On Green	0.00	0.49	0.49	0.49	0.49	0.00				0.38	0.38	0.38
Sat Flow, veh/h	0	954	618	635	1683	0				414	5345	408
Grp Volume(v), veh/h	0	0	760	184	768	0				758	1200	671
Grp Sat Flow(s), veh/h/ln	0	0	1572	635	1683	0				1663	1448	1610
Q Serve(g_s), s	0.0	0.0	42.6	1.9	38.2	0.0				34.6	34.6	34.6
Cycle Q Clear(g_c), s	0.0	0.0	42.6	44.5	38.2	0.0				34.6	34.6	34.6
Prop In Lane	0.00		0.39	1.00		0.00				0.25		0.25
Lane Grp Cap(c), veh/h	0	0	777	94	832	0				639	1113	619
V/C Ratio(X)	0.00	0.00	0.98	1.97	0.92	0.00				1.19	1.08	1.08
Avail Cap(c_a), veh/h	0	0	777	94	832	0				639	1113	619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	22.3	44.9	21.2	0.0				27.7	27.7	27.7
Incr Delay (d2), s/veh	0.0	0.0	27.3	439.0	1.9	0.0				99.1	50.6	61.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	27.6	21.4	16.1	0.0				44.3	27.7	32.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	49.6	483.9	23.1	0.0				126.8	78.3	88.7
LnGrp LOS	A	A	D	F	С	A				F	F	F
Approach Vol, veh/h		760			952						2629	
Approach Delay, s/veh		49.6			112.2						94.9	
Approach LOS		D			F						F	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		50.0		40.0		50.0						
Change Period (Y+Rc), s		* 5.5		* 5.4		* 5.5						
Max Green Setting (Gmax), s		* 45		* 35		* 45						
Max Q Clear Time (g_c+I1), s		46.5		36.6		44.6						
Green Ext Time (p_c), s		0.0		0.0		0.0						
Intersection Summary												
HCM 6th Ctrl Delay			90.8									
HCM 6th LOS			F									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	ၨ	<b>→</b>	$\rightarrow$	•	<b>←</b>	•	•	<b>†</b>	~	<b>&gt;</b>	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>†</b>			<b>†</b>	7		<b>↑</b> ↑			र्सी के	
Traffic Volume (veh/h)	0	892	0	0	1139	110	106	359	113	16	373	34
Future Volume (veh/h)	0	892	0	0	1139	110	106	359	113	16	373	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1683	0	0	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	0	970	0	0	1238	120	115	390	123	17	405	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	0	1032	0	0	1032	875	119	372	143	48	642	65
Arrive On Green	0.00	0.61	0.00	0.00	0.61	0.61	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	0	1683	0	0	1683	1427	238	1395	535	21	2409	242
Grp Volume(v), veh/h	0	970	0	0	1238	120	298	0	330	231	0	228
Grp Sat Flow(s), veh/h/ln	0	1683	0	0	1683	1427	733	0	1435	1183	0	1488
Q Serve(q_s), s	0.0	47.3	0.0	0.0	55.2	3.2	12.1	0.0	19.7	1.2	0.0	11.9
Cycle Q Clear(g_c), s	0.0	47.3	0.0	0.0	55.2	3.2	24.0	0.0	19.7	20.9	0.0	11.9
Prop In Lane	0.00	47.0	0.00	0.00	00.2	1.00	0.39	0.0	0.37	0.07	0.0	0.16
Lane Grp Cap(c), veh/h	0.00	1032	0.00	0.00	1032	875	251	0	383	359	0	397
V/C Ratio(X)	0.00	0.94	0.00	0.00	1.20	0.14	1.19	0.00	0.86	0.65	0.00	0.57
Avail Cap(c_a), veh/h	0.00	1032	0.00	0.00	1032	875	251	0.00	383	359	0.00	397
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.17	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.00	15.9	0.00	0.00	17.4	7.3	38.2	0.0	31.4	28.4	0.00	28.6
Incr Delay (d2), s/veh	0.0	4.0	0.0	0.0	99.1	0.3	117.6	0.0	21.7	8.7	0.0	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	19.4	0.0	0.0	66.5	1.7	21.7	0.0	13.8	8.7	0.0	8.4
Unsig. Movement Delay, s/veh		17.4	0.0	0.0	00.5	1.7	21.7	0.0	13.0	0.7	0.0	0.4
LnGrp Delay(d),s/veh	0.0	19.9	0.0	0.0	116.5	7.7	155.8	0.0	53.1	37.0	0.0	34.5
LnGrp LOS	Α	19.9 B	Α	0.0 A	F	7.7 A	155.6 F	0.0 A	55.1 D	37.0 D	Α	34.5 C
	A		A	A		A	Г		U	U		
Approach Vol, veh/h		970			1358			628			459	
Approach Delay, s/veh		19.9			106.9			101.9			35.8	
Approach LOS		В			F			F			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.6		29.4		60.6		29.4				
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4				
Max Green Setting (Gmax), s		* 55		* 24		* 55		* 24				
Max Q Clear Time (g_c+I1), s		57.2		22.9		49.3		26.0				
Green Ext Time (p_c), s		0.0		0.3		3.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			71.7									
HCM 6th LOS			E									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement    EBL   EBT   EBR   WBL   WBL   WBL   WBL   NBL   NBL   NBR   SBL   SBL   SBL   SBL   Lanc Configurations		•	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<b>/</b>	<b>&gt;</b>	<b>↓</b>	4
Traffic Volume (vehrh)	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vehrh)	Lane Configurations					शाा						<b>^</b> ^	7
Initial O (Ob), weh		0	0	0	221		0	0	0	0	0		
Initial O (Ob), weh	Future Volume (veh/h)	0	0	0	221	1932	0	0	0	0	0	2233	433
Ped-Bik Adj(A_pbT)	. ,										0		
Parking Bus, Adj											1.00		
Work Zone On Approach         No         No         No           Adj Sat Flow, vehrhin         1683         1683         0         1683         1683           Adj Flow Rack, vehrh         240         2100         0         0         2427         471           Peak Hour Factor         0.92 <td></td> <td></td> <td></td> <td></td> <td></td> <td>1.00</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1.00</td> <td></td>						1.00						1.00	
Adj Saf How, weh/hiln       1683       1683       0       0       1683       1683         Adj Flow Rate, veh/h       240       2100       0       0       2427       471         Peak Hour Factor       0.92 </td <td></td>													
Adj Flow Rate, veh/h Peak Hour Factor O92					1683		0				0		1683
Peak Hour Factor         0.92         Care         Care         Cape         Chape         C	•												
Percent Heavy Veh, %   2   2   0   0   2   2   2   2   2   2													
Cap, veh/h         254         1803         0         0         2415         750           Arrive On Green         0.37         0.37         0.00         0.00         0.53         0.53         0.53         253         253         253         253         253         253         253         253         253         253         253         253         253         253         253         247         1427         471         471         471         471         472         472         472         472         472													
Arrive On Green       0.37       0.37       0.00       0.00       0.53       0.53         Sal Flow, weh/h       545       5131       0       0       4747       1427         Grp Volume(v), veh/h       665       1675       0       0       2427       471         Grp Sat Flow(s), veh/h/lin       1509       1317       0       0       1532       1427         O Serve(g_s), s       33.0       33.0       30.0       0.0       47.3       21.0         Vcycle Q Clear(g_c), s       33.0       33.0       0.0       0.0       47.3       21.0         Prop In Lane       0.36       0.00       0.00       0.00       1.00         Lane Grp Cap(c), veh/h       608       1449       0       0       2415       750         VC Ratio(X)       1.09       1.16       0.00       0.00       1.00       1.00         Avail Cap(c_a), veh/h       608       1449       0       0       2415       750         HCM Platon Ratio       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00													
Sal Flow, veh/h         545         5131         0         0         4747         1427           Grp Volume(v), veh/h         665         1675         0         0         2427         471           Grp Sal Flow(s), veh/h/ln         1509         1317         0         0         1532         1427           Q Serve(g. s), s         33.0         33.0         0.0         0.0         47.3         21.0           Cycle Q Clear(g., c), s         33.0         33.0         0.0         0.0         47.3         21.0           Prop In Lane         0.36         0.00         0.00         1.00													
Grp Volume(v), veh/h         665         1675         0         0         2427         471           Grp Sat Flow(s), veh/h/ln         1509         1317         0         0         1532         1427           O Serve(g_s), s         33.0         33.0         0.0         0.0         47.3         21.0           Cycle O Clear(g_c), s         33.0         33.0         0.0         0.0         47.3         21.0           Prop In Lane         0.36         0.00         0.00         47.3         21.0           V/C Ratio(X)         1.09         1.16         0.00         0.00         1.00           V/C Ratio(X)         1.09         1.16         0.00         0.00         1.00           Avail Capic a), veh/h         608         1449         0         0         2415         750           HCM Platon Ratio         1.09         1.16         0.00         0.0         1.00         1.00           HCM Platon Ratio         1.00         1.00         1.00         1.00         1.00         1.00           Uniform Delay (d), sveh         30.0         28.5         0.0         0.0         1.00         1.00           Uniform Delay (d2), sveh         64.9         78													
Grp Sat Flow(s), veh/h/ln         1509         1317         0         0         1532         1427           Q Serve(g_s), s         33.0         33.0         0.0         0.0         47.3         21.0           Cycle Q Clear(g_c), s         33.0         33.0         0.0         0.0         47.3         21.0           Prop In Lane         0.36         0.00         0.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         0.03         1.00         0.63         Avail Cap(c_a), veh/h         608         1449         0         0         2415         750         VC Ratio(X)         1.09         1.16         0.00         0.00         1.00													
O Serve(g_s), s       33.0       33.0       0.0       0.0       47.3       21.0         Cycle Q Clear(g_c), s       33.0       33.0       0.0       0.0       47.3       21.0         Prop In Lane       0.36       0.00       0.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       0.03       47.3       21.0       21.5       750													
Cycle Q Clear(g_c), s         33.0         33.0         0.0         0.0         47.3         21.0           Prop In Lane         0.36         0.00         0.00         1.00           Lane Grp Cap(c), veh/h         608         1449         0         0         2415         750           V/C Ratio(X)         1.09         1.16         0.00         0.00         1.00         6.03           Avail Cap(c_a), veh/h         608         1449         0         0         2415         750           HCM Platoon Ratio         1.00													
Prop In Lane													
Lane Grp Cap(c), veh/h    Cap(c)   Cap(c)   Cap(c)						33.0						47.3	
V/C Ratio(X)         1.09         1.16         0.00         0.00         1.00         0.63           Avail Cap(c_a), veh/h         608         1449         0         0         2415         750           HCM Platoon Ratio         1.00         1.00         1.00         1.00         1.00         1.00         1.00           Upstream Filter(I)         1.00         1.00         0.00         0.00         0.0         1.00         1.00           Uniform Delay (d), s/veh         30.0         28.5         0.0         0.0         21.4         15.1           Incr Delay (d2), s/veh         64.9         78.4         0.0         0.0         19.5         4.0           Initial O Delay(d3), s/veh         0.0         0.						1440						0.415	
Avail Cap(c_a), veh/h HCM Platoon Ratio HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
HCM Platon Ratio	. ,												
Upstream Filter(I)         1.00         1.00         0.00         1.00         1.00           Uniform Delay (d), s/veh         30.0         28.5         0.0         0.0         21.4         15.1           Incr Delay (d2), s/veh         64.9         78.4         0.0         0.0         19.5         4.0           Initial O Delay(d3), s/veh         0.0         0.0         0.0         0.0         0.0         0.0         0.0           %ile BackOfQ(95%), veh/ln         34.2         30.4         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         26.9         11.5         Unsig. Movement Delay, s/veh         0.0         0.0         40.8         19.1         EnGrp Delay(d), s/veh         94.8         106.9         0.0         0.0         40.8         19.1         EnGrp Delay(d), s/veh         19.1         Engre Delay(d), s/veh         19.2         Engre Delay(d), s/veh													
Uniform Delay (d), s/veh 30.0 28.5 0.0 0.0 21.4 15.1 Incr Delay (d2), s/veh 64.9 78.4 0.0 0.0 19.5 4.0 Initial Q Delay(d3), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.													
Incr Delay (d2), s/veh													
Initial Q Delay(d3),s/veh													
%ile BackOfO(95%),veh/ln       34.2       30.4       0.0       0.0       26.9       11.5         Unsig. Movement Delay, s/veh       94.8       106.9       0.0       0.0       40.8       19.1         LnGrp Delay(d),s/veh       94.8       106.9       0.0       0.0       40.8       19.1         LnGrp LOS       F       F       A       A       F       B         Approach Vol, veh/h       2340       2898         Approach LOS       F       D       D         Timer - Assigned Phs       2       4         Phs Duration (G+Y+Rc), s       38.0       52.0         Change Period (Y+Rc), s       5.0       * 4.7         Max Green Setting (Gmax), s       33.0       * 47         Max Q Clear Time (g_c+I1), s       35.0       49.3         Green Ext Time (p_c), s       0.0       0.0         Intersection Summary         HCM 6th Ctrl Delay       66.9         HCM 6th LOS       E													
Unsig. Movement Delay, s/veh LnGrp Delay(d),s/veh 94.8 106.9 0.0 0.0 40.8 19.1 LnGrp LOS F F F A A A F B Approach Vol, veh/h 2340 Approach Delay, s/veh 103.4 Approach LOS F D  Timer - Assigned Phs 2 4 Phs Duration (G+Y+Rc), s 38.0 Change Period (Y+Rc), s 5.0 *4.7 Max Green Setting (Gmax), s Max Q Clear Time (g_c+11), s Green Ext Time (p_c), s 0.0 Intersection Summary HCM 6th Ctrl Delay 66.9 HCM 6th LOS E													
LnGrp Delay(d),s/veh       94.8       106.9       0.0       0.0       40.8       19.1         LnGrp LOS       F       F       A       A       F       B         Approach Vol, veh/h       2340       2898         Approach Delay, s/veh       103.4       37.3         Approach LOS       F       D         Timer - Assigned Phs       2       4         Phs Duration (G+Y+Rc), s       38.0       52.0         Change Period (Y+Rc), s       5.0       * 4.7         Max Green Setting (Gmax), s       33.0       * 47         Max Q Clear Time (g_c+I1), s       35.0       49.3         Green Ext Time (p_c), s       0.0       0.0         Intersection Summary         HCM 6th Ctrl Delay       66.9         HCM 6th LOS       E					34.2	30.4	0.0				0.0	26.9	11.5
LnGrp LOS         F         F         A         A         F         B           Approach Vol, veh/h         2340         2898           Approach Delay, s/veh         103.4         37.3           Approach LOS         F         D           Timer - Assigned Phs         2         4           Phs Duration (G+Y+Rc), s         38.0         52.0           Change Period (Y+Rc), s         5.0         * 4.7           Max Green Setting (Gmax), s         33.0         * 47           Max Q Clear Time (g_c+l1), s         35.0         49.3           Green Ext Time (p_c), s         0.0         0.0           Intersection Summary         HCM 6th Ctrl Delay         66.9           HCM 6th LOS         E	,												
Approach Vol, veh/h       2340       2898         Approach Delay, s/veh       103.4       37.3         Approach LOS       F       D         Timer - Assigned Phs       2       4         Phs Duration (G+Y+Rc), s       38.0       52.0         Change Period (Y+Rc), s       5.0       * 4.7         Max Green Setting (Gmax), s       33.0       * 47         Max Q Clear Time (g_c+I1), s       35.0       49.3         Green Ext Time (p_c), s       0.0       0.0         Intersection Summary       HCM 6th Ctrl Delay       66.9         HCM 6th LOS       E					94.8	106.9	0.0				0.0		19.1
Approach Delay, s/veh       103.4       37.3         Approach LOS       F       D         Timer - Assigned Phs       2       4         Phs Duration (G+Y+Rc), s       38.0       52.0         Change Period (Y+Rc), s       5.0       * 4.7         Max Green Setting (Gmax), s       33.0       * 47         Max Q Clear Time (g_c+I1), s       35.0       49.3         Green Ext Time (p_c), s       0.0       0.0         Intersection Summary       HCM 6th Ctrl Delay       66.9         HCM 6th LOS       E	LnGrp LOS				F	F	Α				Α	F	В
Approach LOS	Approach Vol, veh/h					2340						2898	
Timer - Assigned Phs       2       4         Phs Duration (G+Y+Rc), s       38.0       52.0         Change Period (Y+Rc), s       5.0       * 4.7         Max Green Setting (Gmax), s       33.0       * 47         Max Q Clear Time (g_c+I1), s       35.0       49.3         Green Ext Time (p_c), s       0.0       0.0         Intersection Summary         HCM 6th Ctrl Delay       66.9         HCM 6th LOS       E	Approach Delay, s/veh					103.4						37.3	
Phs Duration (G+Y+Rc), s       38.0       52.0         Change Period (Y+Rc), s       5.0       * 4.7         Max Green Setting (Gmax), s       33.0       * 47         Max Q Clear Time (g_c+l1), s       35.0       49.3         Green Ext Time (p_c), s       0.0       0.0         Intersection Summary       66.9         HCM 6th LOS       E	Approach LOS					F						D	
Phs Duration (G+Y+Rc), s       38.0       52.0         Change Period (Y+Rc), s       5.0       * 4.7         Max Green Setting (Gmax), s       33.0       * 47         Max Q Clear Time (g_c+l1), s       35.0       49.3         Green Ext Time (p_c), s       0.0       0.0         Intersection Summary       66.9         HCM 6th LOS       E	Timer - Assigned Phs		2		4								
Change Period (Y+Rc), s       5.0       * 4.7         Max Green Setting (Gmax), s       33.0       * 47         Max Q Clear Time (g_c+I1), s       35.0       49.3         Green Ext Time (p_c), s       0.0       0.0         Intersection Summary         HCM 6th Ctrl Delay       66.9         HCM 6th LOS       E					52.0								
Max Green Setting (Gmax), s       33.0       * 47         Max Q Clear Time (g_c+l1), s       35.0       49.3         Green Ext Time (p_c), s       0.0       0.0         Intersection Summary         HCM 6th Ctrl Delay       66.9         HCM 6th LOS       E													
Max Q Clear Time (g_c+l1), s       35.0       49.3         Green Ext Time (p_c), s       0.0       0.0         Intersection Summary         HCM 6th Ctrl Delay       66.9         HCM 6th LOS       E													
Green Ext Time (p_c), s 0.0 0.0  Intersection Summary  HCM 6th Ctrl Delay 66.9  HCM 6th LOS E													
HCM 6th Ctrl Delay 66.9 HCM 6th LOS E													
HCM 6th Ctrl Delay 66.9 HCM 6th LOS E													
HCM 6th LOS E				66.9									
	,												
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<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				7	ተተኈ			414			<b>^</b>	7
Traffic Volume (veh/h)	0	0	0	155	1534	95	223	417	0	0	312	147
Future Volume (veh/h)	0	0	0	155	1534	95	223	417	0	0	312	147
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1683	1683	1683	1683	1683	1683	0	1683	1683
Adj Flow Rate, veh/h				168	1667	103	242	453	0	0	339	160
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				761	2099	130	322	647	0	0	1308	583
Arrive On Green				0.47	0.47	0.47	0.41	0.41	0.00	0.00	0.41	0.41
Sat Flow, veh/h				1603	4425	273	609	1660	0	0	3282	1427
Grp Volume(v), veh/h				168	1154	616	293	402	0	0	339	160
Grp Sat Flow(s), veh/h/ln				1603	1532	1634	737	1455	0	0	1599	1427
Q Serve(g_s), s				5.5	28.6	28.6	29.2	20.3	0.0	0.0	6.3	6.7
Cycle Q Clear(g_c), s				5.5	28.6	28.6	35.5	20.3	0.0	0.0	6.3	6.7
Prop In Lane				1.00	20.0	0.17	0.83	20.0	0.00	0.00	0.0	1.00
Lane Grp Cap(c), veh/h				761	1454	775	374	595	0.00	0.00	1308	583
V/C Ratio(X)				0.22	0.79	0.79	0.78	0.68	0.00	0.00	0.26	0.27
Avail Cap(c_a), veh/h				761	1454	775	374	595	0.00	0.00	1308	583
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				13.9	19.9	20.0	29.3	21.7	0.0	0.0	17.6	17.7
Incr Delay (d2), s/veh				0.7	4.5	8.3	10.3	3.0	0.0	0.0	0.5	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				3.7	15.7	17.6	11.4	11.5	0.0	0.0	4.2	4.2
Unsig. Movement Delay, s/veh				5.7	13.7	17.0	11.7	11.0	0.0	0.0	7.2	7.2
LnGrp Delay(d),s/veh				14.6	24.5	28.2	39.6	24.8	0.0	0.0	18.1	18.9
LnGrp LOS				14.0 B	24.3 C	C C	37.0 D	24.0 C	Α	Α	В	В
Approach Vol, veh/h				U D	1938		D	695	А		499	
Approach Delay, s/veh					24.8			31.0			18.3	
Approach LOS					24.0 C			31.0 C			10.3 B	
Approach LOS					C			C			D	
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		48.0		42.0				42.0				
Change Period (Y+Rc), s		* 5.3		* 5.2				* 5.2				
Max Green Setting (Gmax), s		* 43		* 37				* 37				
Max Q Clear Time (g_c+I1), s		30.6		8.7				37.5				
Green Ext Time (p_c), s		9.0		2.9				0.0				
Intersection Summary												
HCM 6th Ctrl Delay			25.2									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

## Appendix F Construction Analysis

## APPENDIX F-1 EXISTING WITH CONSTRUCTION CONDITIONS (YEAR 2022) INTERSECTION LEVELS OF SERVICE ANALYSIS

No	Intersection	Peak Hour	Exis	sting		ng with ruction
NO	intersection	reak Hour	Delay	LOS	Delay	LOS
1.	Hope Street & 8th Street	AM PM	22.4 19.6	C B	26.0 23.6	C C

## Notes:

Delay is measured in seconds per vehicle

LOS = Level of service

Results per Synchro 11 (HCM methodology)

	۶	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	~	<b>&gt;</b>	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				ሻ	ተተኈ			414			₽	
Traffic Volume (veh/h)	0	0	0	56	1192	151	212	465	0	0	124	74
Future Volume (veh/h)	0	0	0	56	1192	151	212	465	0	0	124	74
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			Yes	
Adj Sat Flow, veh/h/ln				1683	1683	1683	1683	1683	1683	0	1683	1683
Adj Flow Rate, veh/h				61	1296	164	230	505	0	0	135	80
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				636	1638	207	390	873	0	0	482	286
Arrive On Green				0.40	0.40	0.40	0.49	0.49	0.00	0.00	0.49	0.49
Sat Flow, veh/h				1603	4130	523	664	1870	0	0	991	587
Grp Volume(v), veh/h				61	961	499	347	388	0	0	0	215
Grp Sat Flow(s),veh/h/ln				1603	1532	1589	1002	1455	0	0	0	1578
Q Serve(g_s), s				2.1	24.8	24.8	21.7	16.8	0.0	0.0	0.0	7.3
Cycle Q Clear(g_c), s				2.1	24.8	24.8	29.0	16.8	0.0	0.0	0.0	7.3
Prop In Lane				1.00		0.33	0.66		0.00	0.00		0.37
Lane Grp Cap(c), veh/h				636	1215	630	554	708	0	0	0	768
V/C Ratio(X)				0.10	0.79	0.79	0.63	0.55	0.00	0.00	0.00	0.28
Avail Cap(c_a), veh/h				636	1215	630	554	708	0	0	0	768
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				17.0	23.9	23.9	22.3	16.2	0.0	0.0	0.0	13.7
Incr Delay (d2), s/veh				0.3	5.3	9.8	2.2	0.9	0.0	0.0	0.0	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				1.5	14.5	15.9	10.2	9.3	0.0	0.0	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				17.3	29.2	33.7	24.6	17.1	0.0	0.0	0.0	14.6
LnGrp LOS				В	С	С	С	В	Α	Α	Α	В
Approach Vol, veh/h					1521			735			215	
Approach Delay, s/veh					30.2			20.6			14.6	
Approach LOS					C			С			В	
Timer - Assigned Phs		2		4				8				
								49.0				
Phs Duration (G+Y+Rc), s		41.0		49.0								
Change Period (Y+Rc), s		* 5.3		* 5.2				* 5.2				
Max Green Setting (Gmax), s		* 36		* 44				* 44				
Max Q Clear Time (g_c+l1), s		26.8		9.3				31.0				
Green Ext Time (p_c), s		6.0		1.4				4.0				
Intersection Summary												
HCM 6th Ctrl Delay			26.0									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				ሻ	ተተኈ			4TÞ			ĵ.	
Traffic Volume (veh/h)	0	0	0	102	1083	87	140	359	0	0	274	125
Future Volume (veh/h)	0	0	0	102	1083	87	140	359	0	0	274	125
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			Yes	
Adj Sat Flow, veh/h/ln				1683	1683	1683	1683	1683	1683	0	1683	1683
Adj Flow Rate, veh/h				111	1177	95	152	390	0	0	298	136
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				636	1719	139	261	842	0	0	532	243
Arrive On Green				0.40	0.40	0.40	0.49	0.49	0.00	0.00	0.49	0.49
Sat Flow, veh/h				1603	4334	350	402	1806	0	0	1094	499
Grp Volume(v), veh/h				111	832	440	239	303	0	0	0	434
Grp Sat Flow(s), veh/h/ln				1603	1532	1620	677	1455	0	0	0	1593
Q Serve(g_s), s				4.0	20.2	20.3	16.4	12.2	0.0	0.0	0.0	17.3
Cycle Q Clear(g_c), s				4.0	20.2	20.3	33.7	12.2	0.0	0.0	0.0	17.3
Prop In Lane				1.00	20.2	0.22	0.64	12.2	0.00	0.00	0.0	0.31
Lane Grp Cap(c), veh/h				636	1215	643	395	708	0.00	0.00	0	775
V/C Ratio(X)				0.17	0.68	0.68	0.61	0.43	0.00	0.00	0.00	0.56
Avail Cap(c_a), veh/h				636	1215	643	395	708	0.00	0.00	0.00	775
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				17.6	22.5	22.5	26.0	15.0	0.00	0.00	0.00	16.3
Incr Delay (d2), s/veh				0.6	3.1	5.8	2.6	0.4	0.0	0.0	0.0	2.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				2.8	12.0	13.2	8.2	7.0	0.0	0.0	0.0	10.8
Unsig. Movement Delay, s/veh				2.0	12.0	13.2	0.2	7.0	0.0	0.0	0.0	10.0
LnGrp Delay(d),s/veh				18.2	25.6	28.3	28.6	15.4	0.0	0.0	0.0	19.2
LnGrp LOS				16.2 B	23.0 C		20.0 C	15.4 B				
				D		С	C		A	A	A 424	B
Approach Vol, veh/h					1383			542			434	
Approach Delay, s/veh					25.9			21.2			19.2	
Approach LOS					С			С			В	
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		41.0		49.0				49.0				
Change Period (Y+Rc), s		* 5.3		* 5.2				* 5.2				
Max Green Setting (Gmax), s		* 36		* 44				* 44				
Max Q Clear Time (g_c+I1), s		22.3		19.3				35.7				
Green Ext Time (p_c), s		7.4		2.9				2.2				
Intersection Summary												
HCM 6th Ctrl Delay			23.6									
HCM 6th LOS			С									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Traffic Hazards Review Letter



February 7, 2024

Eileen Hunt Los Angeles Department of Transportation 100 S. Main Street Los Angeles, CA 90012

TRAFFIC HAZARDS REVIEW FOR Re: THE BLOC RESIDENTIAL TOWER AND SIGNAGE SUPPLEMENTAL USE DISTRICT PROJECT DOT CASE NO. CEN21-52378

Dear Eileen:

An updated traffic hazards review was conducted for the proposed The Bloc Residential Tower and Signage Supplemental Use District (SUD) Project (Project) located generally at 700 S. Flower Street, 700 W. 7th Street, 711 S. Hope Street, and 775 S. Hope Street within the Central City Community Plan (Los Angeles Department of City Planning, Updated September 2016) area of the City of Los Angeles, California (City). A previous version of the proposed signage program was reviewed and accepted by LADOT in May 2023.

The following provides a summary of the proposed signage, which is also detailed in the Attachment.

- Street Level wall signs (non-digital)
  - 1 sign facing NB Flower Street 13'-3" above grade
  - o 1 sign facing SB Hope Street 15'-2" above grade
- Street Level digital kiosks
  - o 1 floor-mounted digital kiosk near 7th Street sidewalk
  - o 5 wall-mounted digital kiosks on Office Colonnade
- Plaza Level digital kiosks
  - 2 floor-mounted digital kiosks near 7<sup>th</sup> Street
- Second Level digital displays (except at corner of 8th Street & Flower Street)
  - o 1 L-shaped sign at corner of 7th Street & Flower Street (facing each street) -20' above grade
  - o 3 signs facing NB Flower Street 24'-6" above grade
  - o 1 wall sign at corner of 8th Street & Flower Street 27'-3" above grade (nondigital)
  - o 1 L-shaped sign at corner of 8th Street & Hope Street (facing each street) -31' above grade
  - o 3 signs facing SB Hope Street 27'-3" above grade
  - 1 sign facing EB 7<sup>th</sup> Street 24'-6" above grade

Ref: J1879

- Roof Level non-digital identification signs
  - o 2 signs on 33<sup>rd</sup> level of office tower (facing 8<sup>th</sup> Street and Hope Street, respectively)
  - o 1 sign on 22<sup>nd</sup> level of hotel tower facing 7<sup>th</sup> Street
  - 3 signs on 42<sup>nd</sup> level of residential tower facing Flower Street, 7<sup>th</sup> Street, and 8<sup>th</sup> Street

#### TRAFFIC HAZARDS REVIEW

Applicable City signage regulations and guidelines related to traffic were reviewed and included sections from the Los Angeles Municipal Code (LAMC) and the Los Angeles Department of Transportation (LADOT) *Hazard Review for Sign Application Permits Evaluation Checklist* (Checklist). In addition, standards in the California Vehicle Code related to signage-related glare were also reviewed.

The LAMC regulates all aspects of building development in the City, including aesthetic aspects such as lighting and signage. Article 4.4 of the LAMC regulates signs within the City. These regulations address various signage types, prohibited sign types, prohibited locations, maintenance, hazards to traffic as determined by LADOT, and freeway exposure. These regulations are not applicable to signs located primarily within a public right-of-way. With regard to lighting, Section 14.4.4 E of these regulations requires that "No sign shall be arranged and illuminated in a manner that will produce a light intensity of greater than three-foot candles above ambient lighting, as measured at the property line of the nearest residentially zoned property."

As detailed in Section 14.4.5 of the LAMC, LADOT shall make the determination if a sign or sign support structure would create a hazard to the safe and efficient operation of vehicles on a street, which would endanger the safety of persons or property. The Checklist serves as the hazard determination for such signs under Section 14.4.5.

The Checklist guidance considers several factors related to location when evaluating the permit applications for digital billboards. Adjacency to a street in the High Injury Network (e.g., 7<sup>th</sup> Street and 8<sup>th</sup> Street) alone does not preclude the installation of a sign. As outlined below, none of the proposed signs or structures would conflict with the Checklist items. The Project would continue to coordinate with LADOT to ensure no potential safety hazards would arise during the installation or operation of the signs.

Evaluation Question	Response (Y/N)
Would the proposed sign or sign support structure obstruct a motorist's view of any traffic control device?	NO – The proposed signs would not obstruct a motorist's view of traffic control devices.
Are approaching motorists faced with important decision making tasks within 500-feet of the proposed sign location? (To make this determination, it is necessary to check if the approaching motorist is confronted with a horizontal curve, lane drop, merge or weave area, or changeable message sign.)	NO – There are no decision-making tasks, such as vertical/horizontal curves, lane drop, merge or weave areas, or changeable message signs within 500 feet of the proposed sign locations.
Is the digital billboard proposed along a street block that has a mid- block pedestrian crosswalk?	NO – No midblock crossings currently exist along any of the blocks where digital billboards are proposed.

Furthermore, the glare from the Project's proposed signage program visible to drivers along roadways would not exceed the California Vehicle Code's maximum permissible luminance standards within drivers' field of view during the day or during periods of low sun intensity, such as overcast, twilight or nighttime conditions.

Therefore, as outlined above, the proposed signage program for the Project would not result in a hazardous condition caused by distracted driving.

Please do not hesitate to contact us should you have any questions. We appreciate your continued assistance with this Project.

Sincerely.

Sarah M. Drobis, P.E. Principal

Emily Wong, P.E. Senior Associate

Reviewed and Accepted by LADOT:

Date:

Eigen Hunt

Digitally signed by Eileen Hunt Date: 2024.02.09 15:02:06 -08'00'

## Attachment

# Conceptual Sign Plan for The Bloc Sign Supplemental Use District

# Conceptual Sign Plan for The Bloc Sign Supplemental Use District

# **February 5, 2024**

Case No.: CPC-2018-6388-SN

Applicant/Owner: NREA-TRC 700, LLC 700 S. Flower Street, Suite 450 Los Angeles, CA 90017 Attn: Dan Cote

Site address: 700 S. Flower Street, 711 S. Hope Street, 700 W. 7th Street

Site Boundary: The block is bounded by 7th Street to the north, Flower Street to the west, 8th Street to the south and Hope Street to the east.

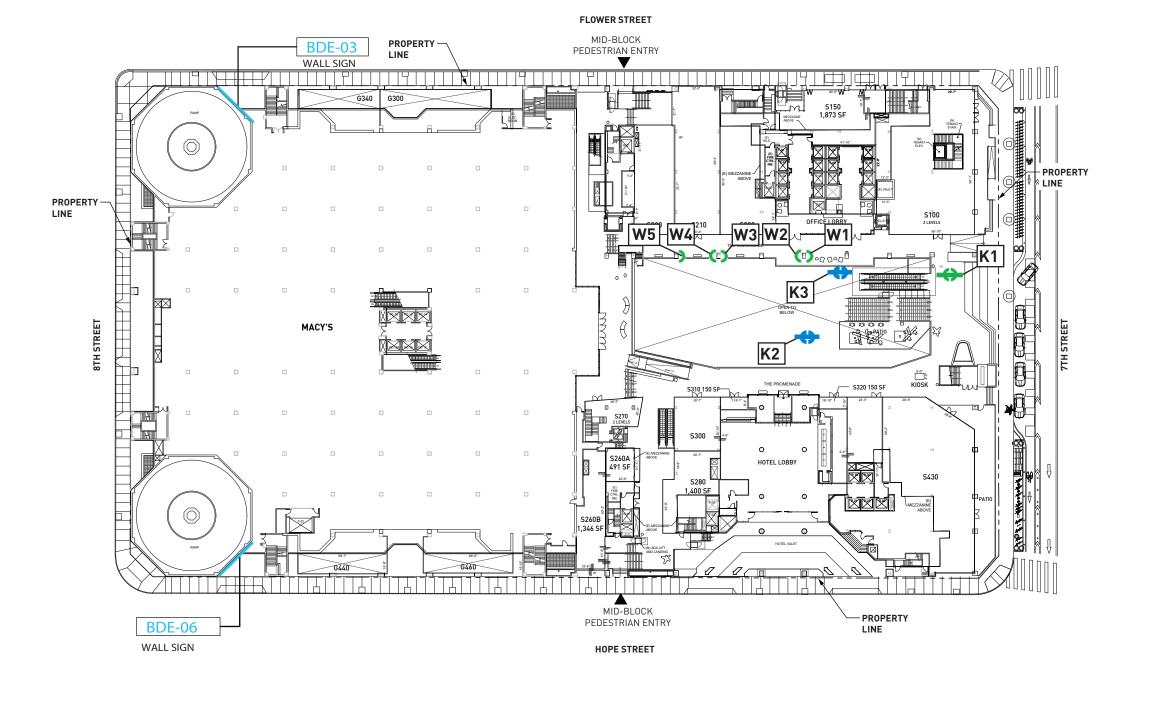
Zone: C2-4D

Lot Area: 186,674 SF









**STREET LEVEL** 

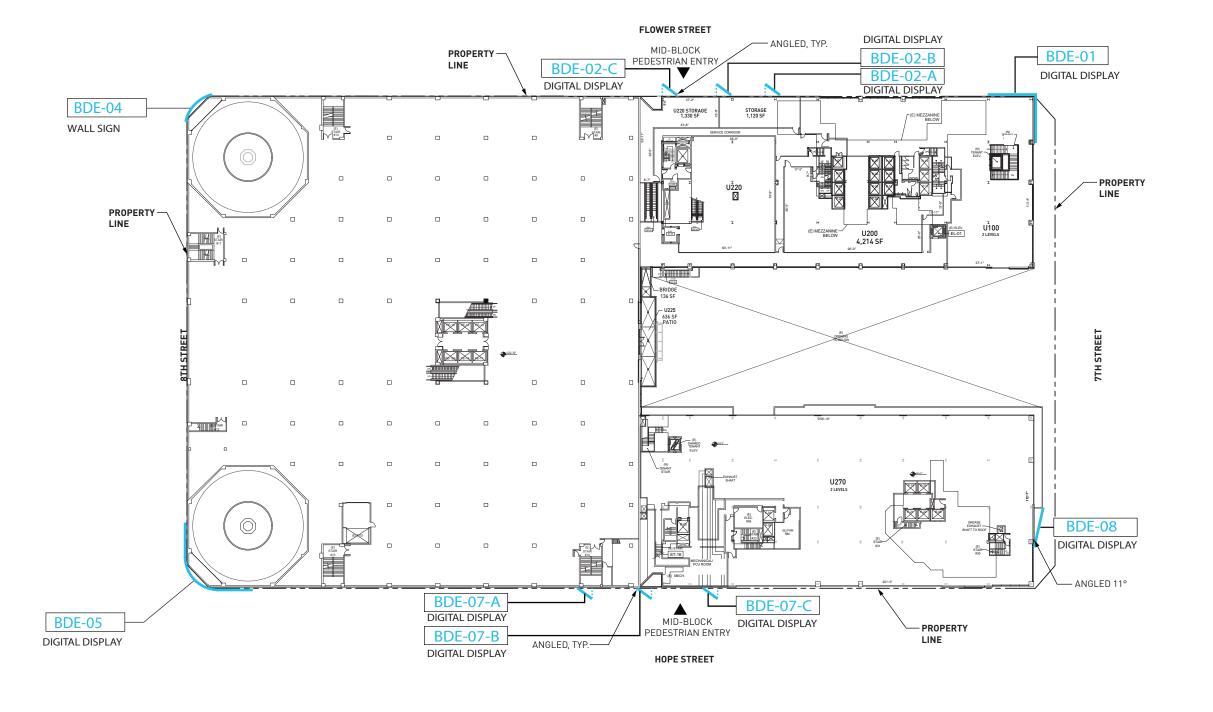


FLOOR MOUNTED DIGITAL KIOSK- PLAZA LEVEL





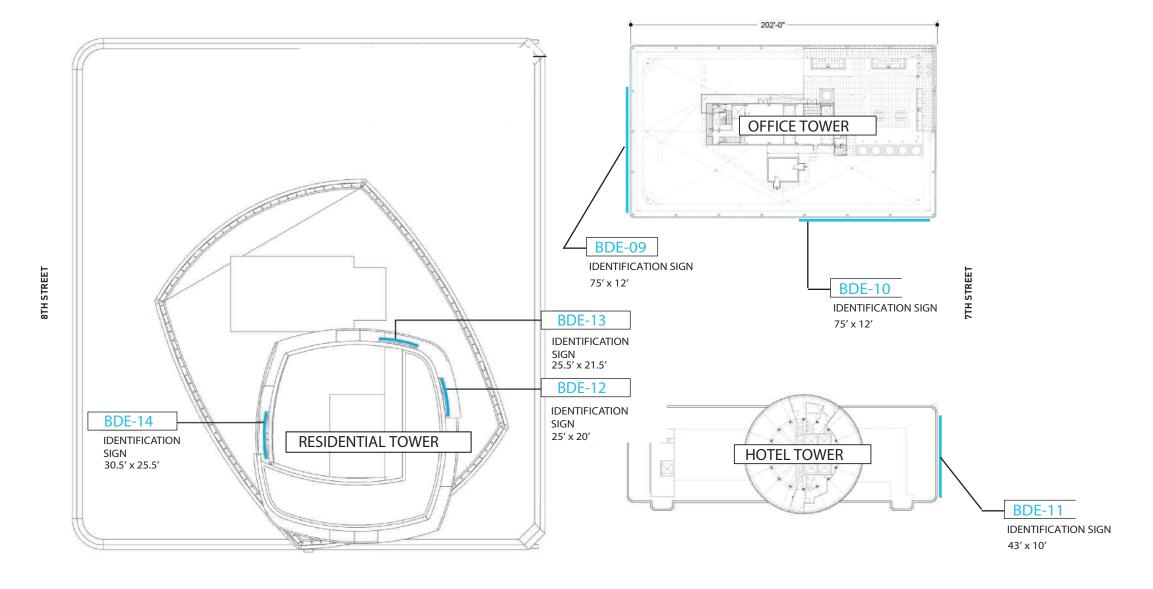




# **SECOND LEVEL**



#### FLOWER STREET



HOPE STREET

# **ROOF LEVEL**



# **VERTICAL SIGN ZONE 3** (160' ABOVE ADJACENT SIDEWALK GRADE) VERTICAL SIGN ZONE 2 (20' TO 160' ABOVE ADJACENT SIDEWALK GRADE) **DIGITAL DISPLAY** BDE-01 **VERTICAL SIGN ZONE 1** (0' TO 20' ABOVE ADJACENT SIDEWALK GRADE) ADJACENT GRADE DATUM LINE

#### Notes:

- 1. Vertical Sign Zones shown for reference only.
- 2. The blue rectangles representing the Digital Display signs include only the area of the Digital Display screens and do not include the sign frames.
- 3. All dimensions from the bottom of a sign to the adjacent sidewalk grade are measured from the lowest point of the sign and are approximate.

BDE-11

43' X 10'

IDENTIFICATION SIGN

BDE-08

**NORTH ELEVATION** 

TOP OF WINDOW

BDE-12

25' x 20

IDENTIFICATION SIGN

**VERTICAL SIGN ZONE 3** (160' ABOVE ADJACENT **SIDEWALK GRADE**)

**VERTICAL SIGN ZONE 2** 

**VERTICAL SIGN ZONE 1** 

BDE-04

# BDE-14 IDENTIFICATION SIGN 30.5' X 25.5' Notes: 1. Vertical Sign Zones shown for reference only. 2. The blue rectangles representing the Digital Display signs include only the area of the Digital Display screens and do not include the sign frames. 3. All dimensions from the bottom of a sign to the adjacent sidewalk grade are measured from the lowest point of the sign and are approximate. WALL SIGN

BDE-02-C

DIGITAL DISPLAY

BDE-03

WALL SIGN

**WEST ELEVATION** 

DIGITAL DISPLAYS

DIGITAL DISPLAY

#### Notes:

- 1. Vertical Sign Zones shown for reference only.
- 2. The blue rectangles representing the Digital Display signs include only the area of the Digital Display screens and do not include the sign frames.
- 3. All dimensions from the bottom of a sign to the adjacent sidewalk grade are measured from the lowest point of the sign and are approximate.

VERTICAL SIGN ZONE 3 (160' ABOVE ADJACENT SIDEWALK GRADE)

VERTICAL SIGN ZONE 2 (14' TO 160' ABOVE ADJACENT SIDEWALK GRADE)

BDE-05

31'-0"

DIGITAL DISPLAY

VERTICAL SIGN ZONE 1 (0' TO 14' ABOVE ADJACENT SIDEWALK GRADE)

ADJACENT GRADE DATUM LINE

**SOUTH ELEVATION** 

BDE-09

TOP OF WINDOW

75' X 12'

BDE-04

WALL SIGN

IDENTIFICATION SIGN

BDE-13

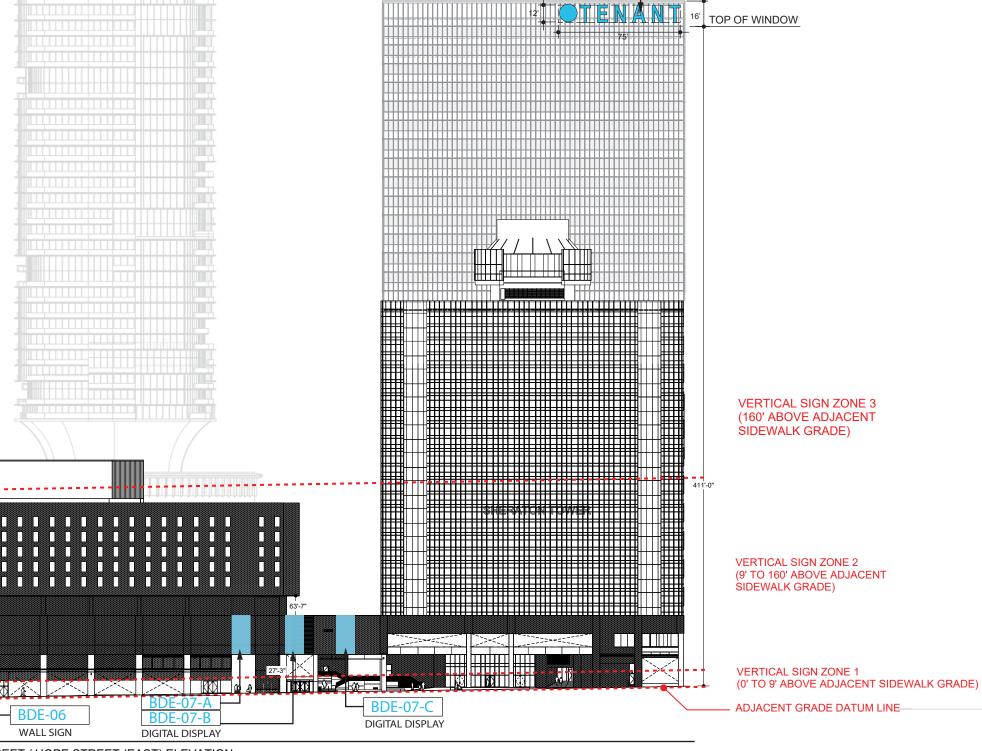
IDENTIFICATION SIGN 25.5' X 21.5'

BDE-10

IDENTIFICATION SIGN

#### Notes:

- 1. Vertical Sign Zones shown for reference only.
- 2. The blue rectangles representing the Digital Display signs include only the area of the Digital Display screens and do not include the sign frames.
- 3. All dimensions from the bottom of a sign to the adjacent sidewalk grade are measured from the lowest point of the sign and are approximate.



### **EAST ELEVATION**

DIGITAL DISPLAY



Office Tower Corner - Facing 7th Street/ Northwest Corner

**BDE-01** 60'w x 26'h





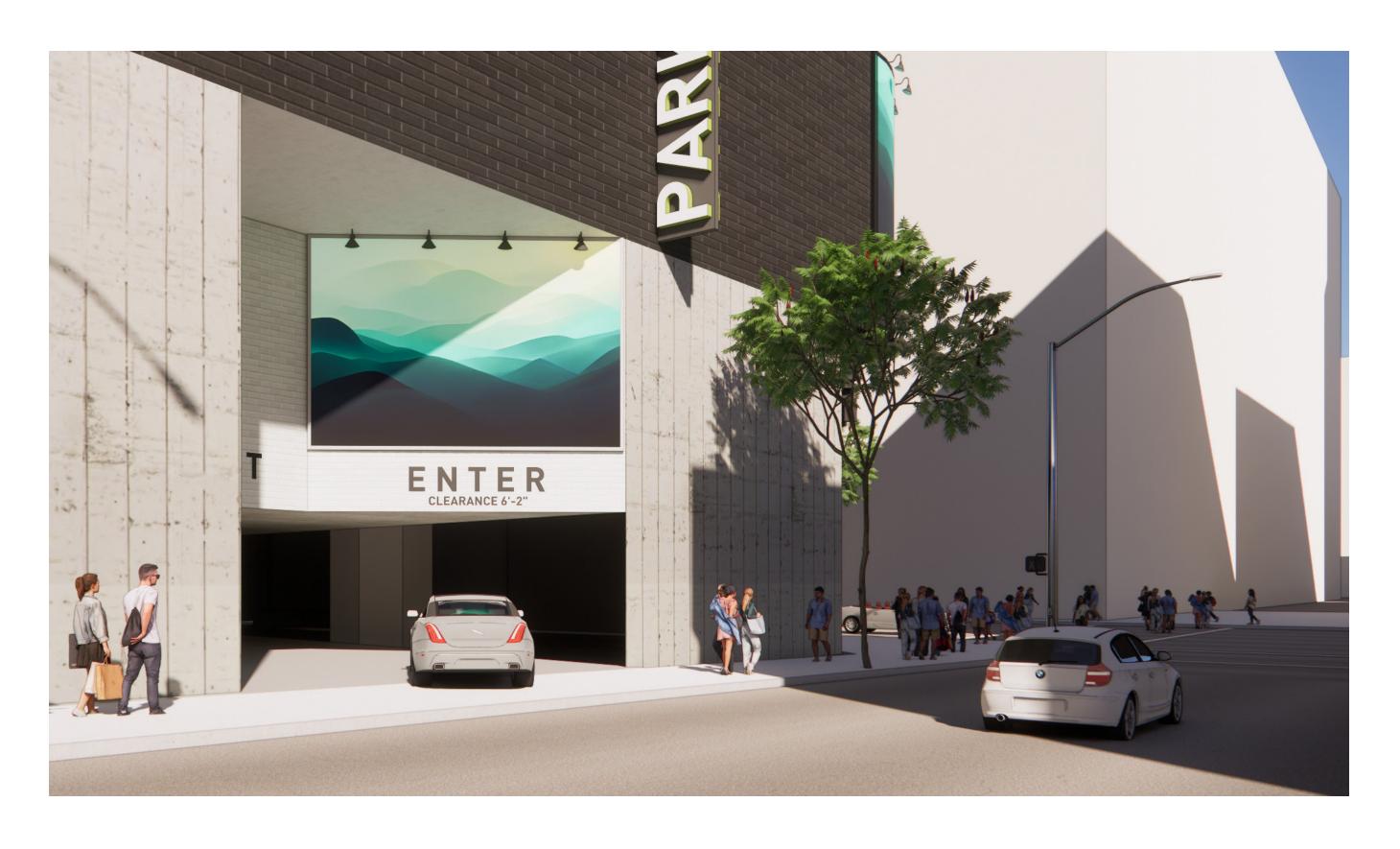
Flower Street Triplets - Facing Flower Street/ West Facade

**BDE-02-A** 12'w x 26'h **BDE-02-B** 

12'w x 26'h

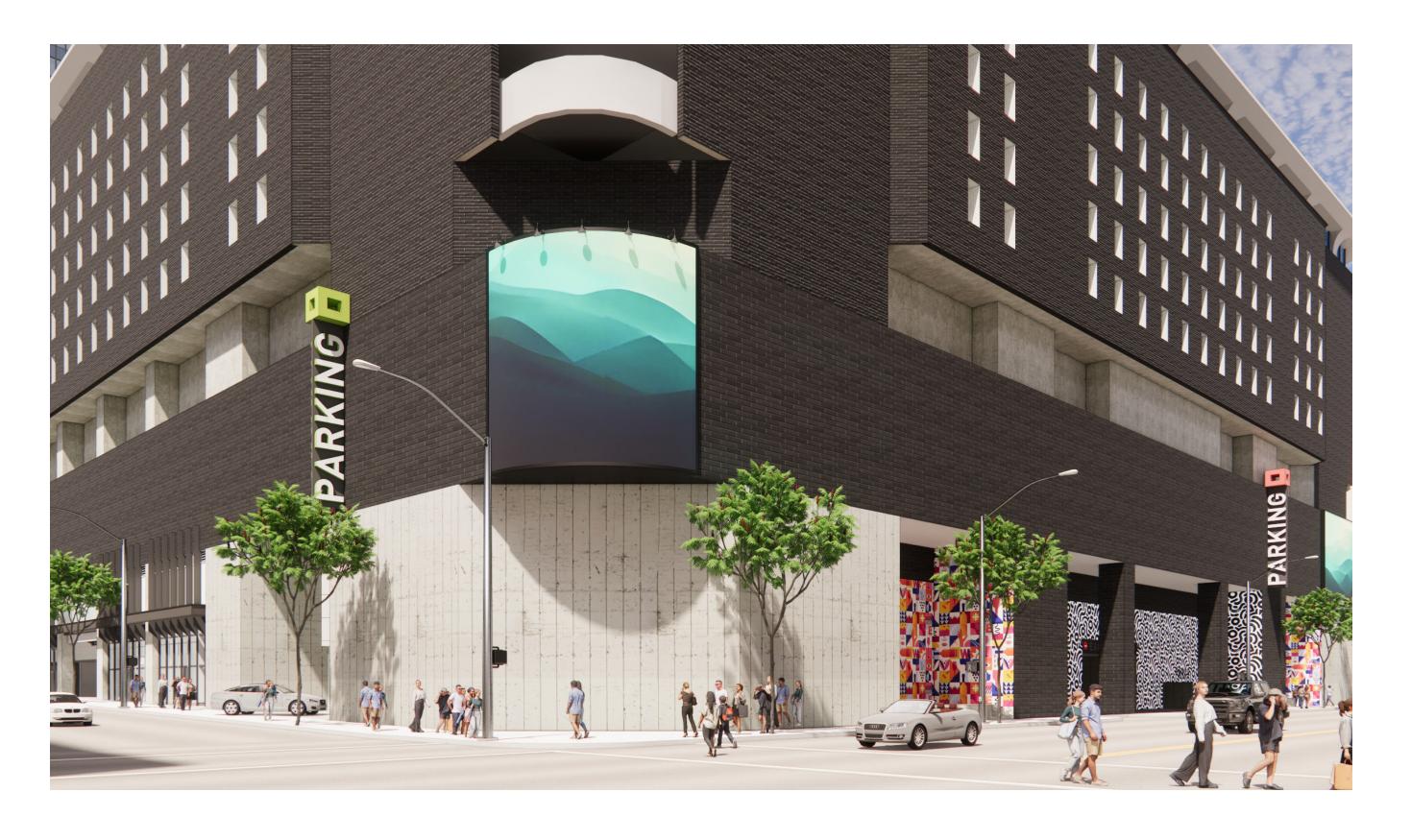
**BDE-02-C** 

12'w x26'h



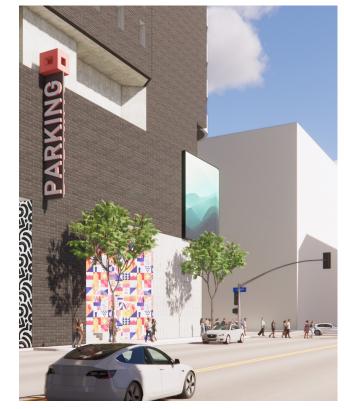
Parking Garage Entry - Facing Flower Street/ West Facade

**BDE-03** 20'w x 14'h



Garage Corner - Facing 8th & Flower / Southwest Corner

23'w x 26'h BDE-04







Garage Corner - Facing 8th & Hope / Southeast Corner

**BDE-05** 79' w x 26'h



Parking Garage Entry - Facing Flower Street/ East Facade

BDE-06 20'w x 14'h







**Hope Street Triplets - Facing Hope Street/ East Facade** 

**BDE-07-A** 12'w x 26'h **BDE-07-B** 

12'w x 26'h

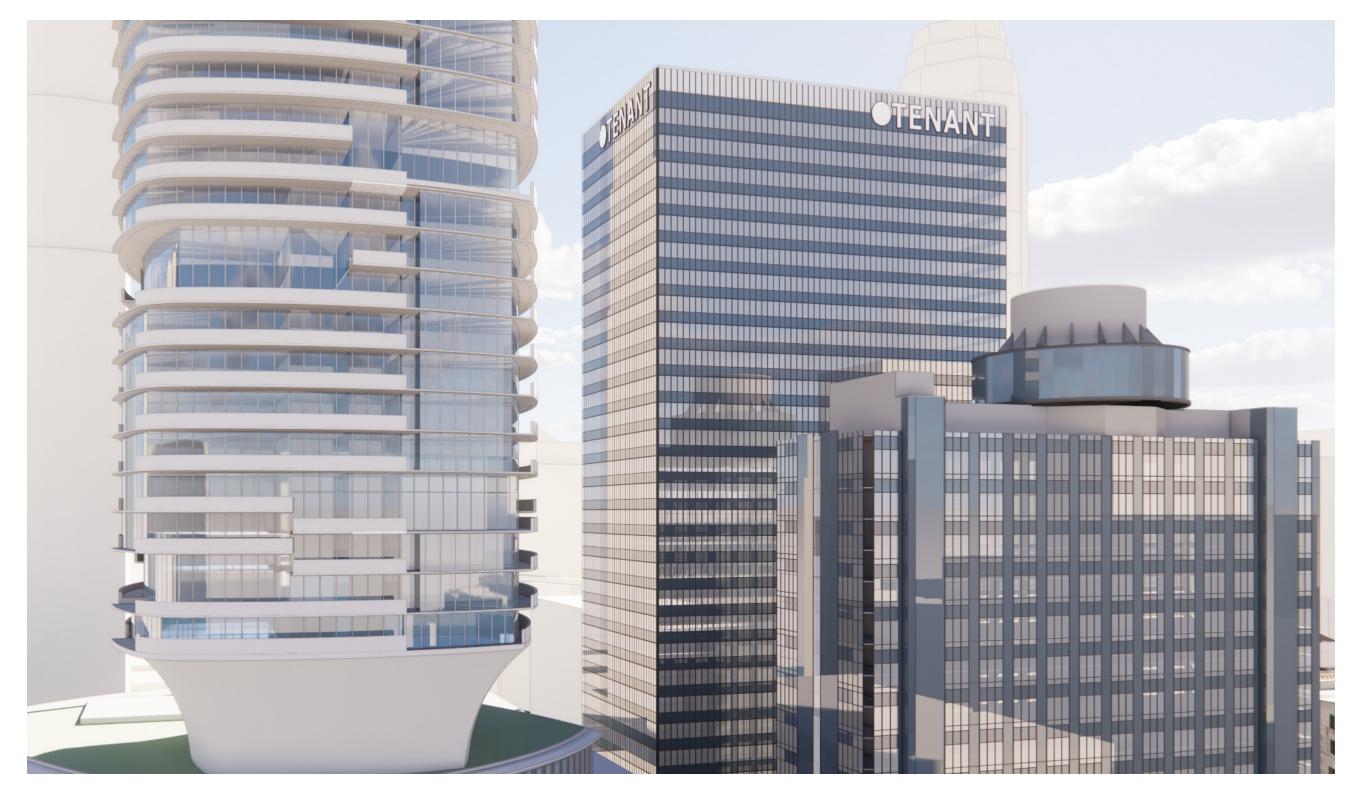
**BDE-07-C** 

12'w x26'h



Hope and 7th Corner- Facing 7th Street/ North Facade

**BDE-08** 25'w x 22'h



Office Tower Top - Facing 8th Street / South
BDE-09 75'w x 12'h

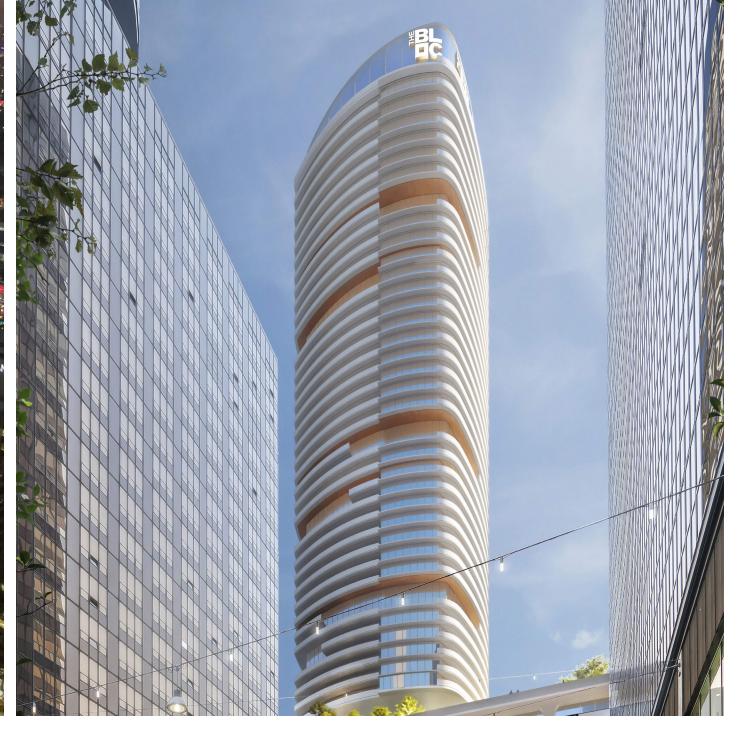
Office Tower Top - Facing Hope Street / East

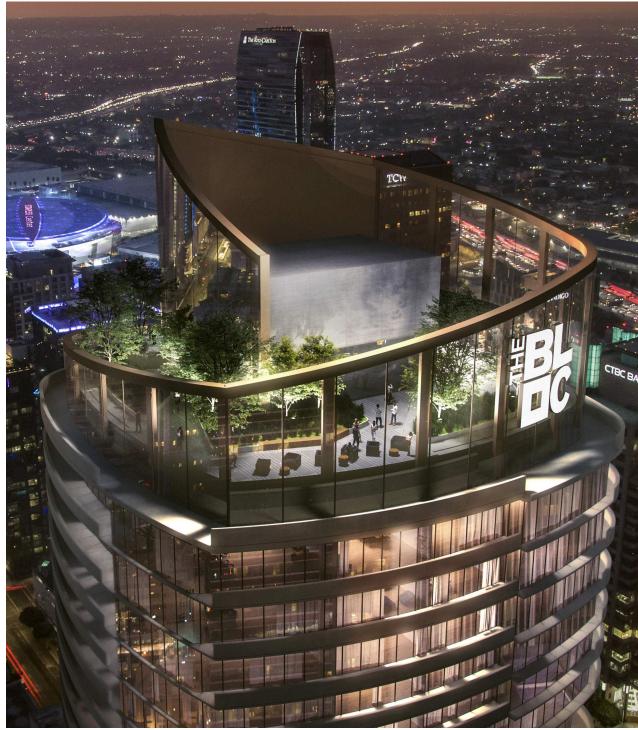
BDE-10 75'w x 12'h



Hotel Tower Top - Facing 7th Street / North

BDE-11 43'w x 10'h





**New Tower Top Sign - Facing 7th Street / North Facade** 

BDE-12 25'w x 20'h

New Tower Top Sign - Facing 8th Street / South Facade

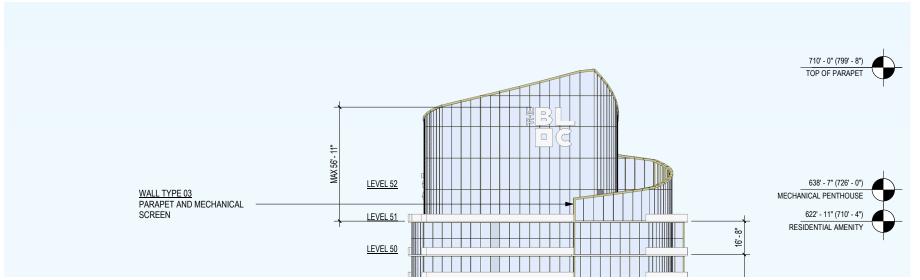
BDE-14 30'-6"w x 25'-4"h

**New Tower Top Sign - Facing Flower St / West Facade** 

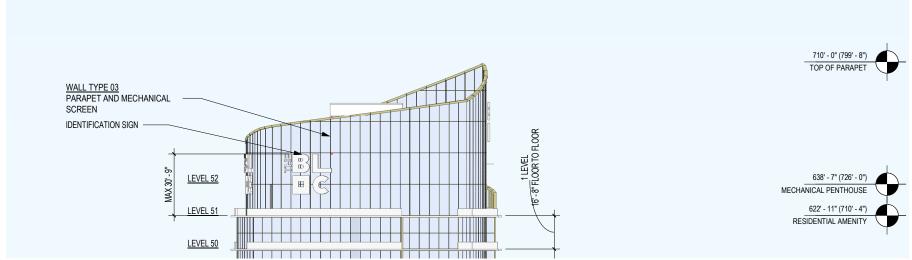
BDE-13 25'-8"w x 21'-3"h



BDE-12 - New Tower Top Sign - Facing 7th Street / North Facade



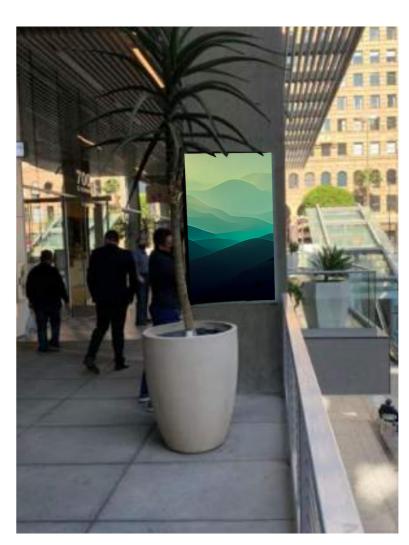
BDE-13 - New Tower Top Sign - Facing 8th Street / South Facade



BDE-14 - New Tower Top Sign - Facing Flower St. / West Facade



K1: STREET LEVEL/7TH STREET PLAZA (K2 & K3 SIMILAR)



W2: STREET LEVEL/OFFICE COLONNADE (W4 SIMILAR)



W1: STREET LEVEL/OFFICE COLONNADE (W3 & W5 SIMILAR)

Sign No.	Sign Type	Digital / Non Digital	On-Site / Off-Site	Dimensions (w X h)	Sign Area (SF)	Location	Facing (Street / Direction)	Encroachment over Property Line
BDE-01	Digital Display	Digital	Off-Site	60' X 26'	1,560	Horizontal Band	7th Street / N & W	2'-6"
BDE-02-A,B,C	Digital Display	Digital	Off-Site	12' X 26', 12' X 26', 12' X 26'	936	Horizontal Band	Flower Street / W	6'-8"
BDE-03	Wall Sign	Non-Digital	On-Site	20' X 14'	280	Parking/Retail Podium	Flower Street/ W	6"
BDE-04	Wall Sign	Non-Digital	On-Site	23' X 26'	598	Horizontal Band	8th & Flower Street / SW	2'-6" (5'-4" at Corner Radius Portion)
BDE-05	Digital Display	Digital	Off-Site	26' X 79'	2,054	Horizontal Band	8th & Hope / SE	2'-6" (7'-7" at Corner Radius Portion)
BDE-06	Wall Sign	Non-Digital	On-Site	20' X 14'	280	Parking/Retail Podium	Hope Street/ E	6"
BDE-07-A,B,C	Digital Display	Digital	Off-Site	12' X 26', 12' X 26', 12' X 26'	936	Horizontal Band	Hope Street / E	6'-8"
BDE-08	Digital Display	Digital	Off-Site	25' X 22'	550	Horizontal Band	7th Street/ N	0"
BDE-09	Identification Sign	Non-Digital	On-Site	75'x12'	900	Office Tower	8th Street / S	0"
BDE-10	Identification Sign	Non-Digital	On-Site	75'x12'	900	Office Tower	Hope Street/ E	0"
BDE-11	Identification Sign	Non-Digital	On-Site	43'x10'	430	Hotel Tower	7th Street / N	0"
BDE-12	Identification Sign	Non-Digital	On-Site	25' X 20'	500	New Tower	7th Street / N	0"
BDE-13	Identification Sign	Non-Digital	On-Site	25'-6" X 21'-6"	548.25	New Tower	Flower Street / W	0"
BDE-14	Identification Sign	Non-Digital	On-Site	30'-6" X 25'-6"	777.75	New Tower	8th Street / S	0"
				Total Sign Area	11,250.00			

<sup>\*</sup> Horizontal Band: The horizontal architectural element that resembles a band and extends around the entirety of the mixed-use complex NOTE: Signs BDE-03, BDE-04 and BDE-06 are not digital and will have externally mounted light fixtures that will extend beyond the property line.

The square footages provided in the "Sign Area" column represent the area of the Digital Display screens and does not include the area of the sign frames for any Digital Display signs. The square footage provided in the "Sign Area" column represents the area of the Identification Signs which is the area of a rectangle circumscribed around the Identification Sign. There are no sign frames around the Identification Signs.

Kiosk No.	Kiosk Type	Mounting	Frame Dimensions	Frame Area	Screen Dimensions (VO)	Screen Area (VO)	Number of Sides	Total Screen Area per Kiosk	Location
<b>K1</b>	Digital Kiosk	Floor	6'-11 15/16" x 2'-11 1/4"	20.5472 SF	4'-8 1/4" x 2'-7 5/8"	12.3535 SF	2	24.707 SF	Street Level / 7th Street Plaza
K2	Digital Kiosk	Floor	6'-11 15/16" x 2'-11 1/4"	20.5472 SF	4'-8 1/4" x 2'-7 5/8"	12.3535 SF	2	24.707 SF	Plaza Level / Center Court
K3	Digital Kiosk	Floor	6'-11 15/16" x 2'-11 1/4"	20.5472 SF	4'-8 1/4" x 2'-7 5/8"	12.3535 SF	2	24.707 SF	Plaza Level / Center Court
W1	Digital Kiosk	Wall	4'-11 15/16" x 2'-11 3/8"	14.7242 SF	4'-8 1/4" x 2'-7 5/8"	12.3535 SF	1	12.3535 SF	Street Level / Office Colonnade
W2	Digital Kiosk	Wall	4'-11 15/16" x 2'-11 3/8"	14.7242 SF	4'-8 1/4" x 2'-7 5/8"	12.3535 SF	1	12.3535 SF	Street Level / Office Colonnade
W3	Digital Kiosk	Wall	4'-11 15/16" x 2'-11 3/8"	14.7242 SF	4'-8 1/4" x 2'-7 5/8"	12.3535 SF	1	12.3535 SF	Street Level / Office Colonnade
W4	Digital Kiosk	Wall	4'-11 15/16" x 2'-11 3/8"	14.7242 SF	4'-8 1/4" x 2'-7 5/8"	12.3535 SF	1	12.3535 SF	Street Level / Office Colonnade
W5	Digital Kiosk	Wall	4'-11 15/16" x 2'-11 3/8"	14.7242 SF	4'-8 1/4" x 2'-7 5/8"	12.3535 SF	1	12.3535 SF	Street Level / Office Colonnade
Note: All D	rigital Kiosks will incl	lude off-site o	ontent.	•		Exterior S	creen Area	135 8885 SE	

SubTotal:

Note: All Digital Kiosks will include off-site content.

#### **CONCEPTUAL SIGN PLAN DEFINITIONS AND REGULATIONS**

#### **Conceptual Sign Plan Regulations**

The proposed The Bloc Sign Supplemental Use District ("SUD") provides that the new illuminated signs and digital kiosks signs subject to regulation by the SUD (collectively, "signs") shall comply with the following requirements:

- No sign shall be arranged and illuminated in a manner that will produce a light intensity of greater than three footcandles above ambient lighting, as measured at the property line of the nearest residentially zoned property (LAMC Section 14.4.4 E)
- Project Signs will not exceed the nighttime luminance of 200 cd/m2 at night from sunset until sunrise.
- Project Signs will not exceed the daytime luminance of 6000 candelas per square meter (cd/m2) for all signs during the day, from 45 minutes after sunrise until 45 minutes prior to sunset.
- Project Signs luminance shall transition smoothly from daytime luminance to nighttime luminance and vice versa over a period of no less than 45 minutes.
- Illuminated signs that have the capacity to exceed the maximum luminance permitted at night (200 cd/m2) will include an electronic control system to reduce sign luminance to the maximum nighttime brightness (200 cd/m2) at any time when ambient sunlight is less than 100 footcandles (fc).
- For internally illuminated signs, the maximum allowed lighting power shall not exceed the product of the illuminated sign area and 12 watts per square foot.

#### The following definitions apply to the above regulations:

Brightness: The magnitude of sensation that results from viewing surfaces from which light

comes to the eye. This sensation is determined partly by the measurable luminance of the source and partly by the conditions of observation (Context), such as the state of adaptation of the eye. For example, very bright lamps at night appear dim during the day, because the eye adapts to the higher brightness

of daylight.

Candela: Measure of light energy from a source at a specific standard angle and distance.

Candela (cd) is a convenient measure to evaluate output of light from a lamp or light fixture in terms of both the intensity of light and the direction of travel of

the light energy away from the source.

Electronic Control System: Integrated hardware and software system which provides sign lighting control

functionality for time of day scheduling, response to ambient light, and direct user control with full range of dimming from 0% to 100% full light output, full

color, or all white.

Illuminance: Illuminance is the means of evaluating the density of Luminous Flux. Illuminance

indicates the amount of Luminous Flux from a light source falling on a given area. Illuminance is measured in footcandles (fc) which is the lumens per square foot, or Lux (lumens per square meter). Illuminance need not necessarily be related to a real surface since it may be measured at any point within a space. Illuminance is determined from the Luminous intensity of the light source. Illuminance of a point source decreases with the square of the distance from the

light source (see Inverse Square Law definition).

For the purposes of this analysis, illuminance may be described subjectively by

the following criteria:

High Illuminance: Illuminance greater than the maximum permitted by the

LAMC, and greater than 3.0 footcandles.

Medium Illuminance: Illuminance less than 3.0 footcandles and greater than 1.0

footcandle.

Low Illuminance: Illuminance less than 1.0 footcandles

Luminance:

Luminance is a measure of emissive or reflected light from a specific surface in a specific direction over a standard area. Luminance is measured in footlamberts (fL) ( $1/\pi$  Candela per square foot) or cd/m<sup>2</sup> (Candela per square meter). 1fL = 3.43 cd/m<sup>2</sup>.

Whereas Illuminance indicates the amount of Luminous Flux falling on a given surface, Luminance describes the brightness of an illuminated or luminous surface. Luminance is defined as the ratio of luminous intensity of a surface (Candela) to the projected area of this surface (m<sup>2</sup> or ft<sup>2</sup>).

# **Appendix I.3**

Los Angeles Department of Transportation
Assessment Letter

FORM GEN. 160A (Rev. 1/82)

#### CITY OF LOS ANGELES

#### INTER-DEPARTMENTAL CORRESPONDENCE

700 S. Flower Street, 700 W. 7th Street 711 S. Hope Street, 775 S. Hope Street

DOT Case No. CEN21-52378

Date:

April 17, 2023

To:

Susan Jimenez, Administrative Clerk

Department of City Flanning

From:

Wes Pringle, Transportation Engineer

Department of Transportation

Subject:

TRANSPORTATION ASSESSMENT FOR THE PROPOSED RESIDENTIAL PROJECT LOCATED

AT 700 SOUTH FLOWER STREET, 700 WEST 7TH STREET, 711 SOUTH HOPE STREET, and

775 SOUTH HOPE STREET

The Los Angeles Department of Transportation (LADOT) has reviewed the transportation assessment prepared by Gibson, Transportation Consulting Inc. dated April 5th, 2023, for the proposed mixed-use project at 700 South Flower Street, 700 West 7<sup>th</sup> Street, 711 South Hope Street and 775 South Hope Street. In compliance with Senate Bill (SB) 743 and the California Environmental Quality Act (CEQA), vehicle miles traveled (VMT) analysis is required to identify the project's ability to promote the reduction of greenhouse gas emissions, the access to diverse land uses, and the development of multimodal networks. The significance of a project's impact in this regard is measured against the VMT thresholds established in LADOT's Transportation Assessment Guidelines (TAG), as described below.

#### **DISCUSSION AND FINDINGS**

#### A. Project Description

The project site includes the block bounded by 7th Street to the north, Hope Street to the east, 8th Street to the south, and Flower Street to the west. It is proposing to develop a new a tower that includes 53-story high rise 466 residential units in the southern portion of the site (Project Site 1) and in the existing podium.

The existing commercial and hotel uses will be retained except 24,342 square feet commercial (theater and retail) uses that would be replaced with residential uses including a new residential lobby. The rooftop parking level of the existing nine-story commercial podium building would be enclosed, and two additional levels of parking would be added, increasing the podium building to 12 stories.

The total floor area for residential uses is approximately 495,016 sf. The 4,342 sf of existing commercial uses within the podium building (to be converted to residential uses) and 470,674 sf in the new 53-story tower, which will extend 41 stories above the expanded 12-story podium building. The two existing basement levels below the podium building would be retained.

The project will utilize four (4) existing driveways as follows: two (Right Turn Only) along 8<sup>th</sup> Street, one (Right Turn Only) along Hope Street and one (Left Turn Only) along Flower Street. The applicant will install signalized alert systems at all four (4) driveways to reduce future pedestrian and vehicle conflicts. This system will improve pedestrian safety by installing loops, sensors, signs, and pavement markings. The project's site plan is illustrated in **Attachment A**. The project is expected to be completed by **2031**.

#### B. Freeway Safety Analysis

Per the Interim Guidance for Freeway Safety Analysis memorandum issued by LADOT on May 1, 2020 to address Caltrans safety concerns on freeways, the study addresses the project's effects on vehicle queuing on freeway off-ramps. Such an evaluation measures the project's potential to lengthen a forecasted off-ramp queue and create speed differentials between vehicles exiting the freeway off-ramps and vehicles operating on the freeway mainline.

The evaluation identified the number of project trips expected to be added to nearby freeway off-ramps serving the project site. It was determined that project traffic at any freeway off-ramp will not exceed 25 peak hour trips. Therefore, a **freeway ramp analysis is not required**.

#### C. CEQA Screening Threshold

Prior to accounting for trip reductions resulting from the application of Transportation Demand Management (TDM) Strategies, a trip generation analysis was conducted to determine if the project would exceed the net 250 daily vehicle trips screening threshold. Using the City of Los Angeles VMT Calculator tool, which draws upon trip rate estimates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11<sup>th</sup> Edition, as well as applying trip generation adjustments when applicable, based on sociodemographic data and the built environment factors of the project's surroundings, it was determined that the project does exceed the net 250 daily vehicle trips threshold. Therefore, VMT analysis is required. A copy of the VMT Calculator summary report is provided in Attachment B.

Additionally, the analysis included further discussion of the transportation impact thresholds:

- T-1 Conflicting with plans, programs, ordinances, or policies
- T-2.1 Causing substantial vehicle miles traveled
- T-2.2 Substantially inducing additional automobile travel analysis
- T-3 Substantially increasing hazards due to a geometric design feature or incompatible use.

The assessment determined that the project would <u>not</u> have a significant transportation impact under Thresholds T-1, T-2.2, T-3. A project's impact per Threshold T-2.1 is determined by using the VMT calculator. A copy of the VMT Calculator summary report is provided in **Attachment B.** 

#### D. <u>Transportation Impacts</u>

On July 30, 2019, pursuant to SB 743 and the recent changes to Section 15064.3 of the State's CEQA Guidelines, the City of Los Angeles adopted VMT as criteria in determining transportation impacts under CEQA. The LADOT TAG provide instructions on preparing transportation assessments for land use proposals and defines the significant impact thresholds. The LADOT

VMT Calculator tool measures project impact in terms of Household VMT per Capita, and Work

VMT per Employee. LADOT identified distinct thresholds for significant VMT impacts for each of the seven APC areas in the city. For the Central APC area, in which the project is located, the following threshold has been established:

Household VMT per Capita: 6.0

The proposed project is projected to have a Household **VMT impact of 2.4**. Therefore, it is concluded that the implementation of the project would result in <u>no significant VMT impact</u>. A copy of the VMT Calculator summary report is provided in **Attachment B**.

#### E. Access and Circulation

During the preparation of the new CEQA guidelines, the State's Office of Planning and Research stressed that lead agencies can continue to apply traditional operational analysis requirements to inform land-use decisions provided that such analyses were outside of the CEQA process. The authority for requiring non-CEQA transportation analysis and requiring improvements to address potential circulation deficiencies, lies in the City of Los Angeles' Site Plan Review authority as established in Section 16.05 of the Los Angeles Municipal Code (LAMC). Therefore, LADOT continues to require and review a project's site access, circulation, and operational plan to determine if any access enhancements, transit amenities, intersection improvements, traffic signal upgrades, neighborhood traffic calming, or other improvements are needed. In accordance with this authority, the project has completed a circulation analysis using a "level of service" screening methodology that indicates that the trips generated by the proposed development will not likely result in adverse circulation conditions at several locations. LADOT has reviewed this analysis and determined that it adequately discloses operational concerns. A copy of the circulation analysis table is provided as **Attachment C** to this report.

#### PROJECT REQUIREMENTS

#### Non-CEQA-Related Requirements and Considerations

To comply with transportation and mobility goals and provisions of adopted City plans and ordinances, the applicant should be required to implement the following:

#### 1. Parking Requirements

The study does not mention the total number of proposed bicycle and vehicular parking spaces. The applicant should check with the Departments of Building and Safety and City Planning on the number of parking spaces required for this project.

#### 2. <u>Highway Dedication and Street Widening Requirements</u>

According to the the Mobility Element of the General Plan, street classification are described below.

**Hope Street** is designated as Avenue II, which would require a 28-foot half-width roadway within a 43-foot half-width right-of-way.

**7**<sup>th</sup> **Street** is designated as Modified Avenue II, which would require a 28-foot half-width roadway within a 40-foot half-width right-of-way.

**8**<sup>th</sup> **Street, and Flower Street** are designated Modified Avenue II, which would require a 33-foot half-width roadway within a 45-foot half-width right-of-way.

The applicant should check with the Bureau of Engineering's Land Development Group to determine if there are any other applicable highway dedication, street widening and/or sidewalk requirements for this project.

#### 3. <u>Project Access and Circulation</u>

The conceptual site plan for the project (see **Attachment A**) is acceptable to LADOT. The review of this study **does not** constitute approval of the dimensions for any new proposed driveway. Review and approval of the driveway should be coordinated with LADOT's Citywide Planning Coordination Section (201 North Figueroa Street, 5th Floor, Room 550, at 213-482-7024). In order to minimize and prevent last-minute building design changes, the applicant should contact LADOT for driveway width and internal circulation requirements prior to the commencement of building or parking layout design. The applicant should check with City Planning regarding the project's driveway placement and design.

#### 4. Worksite Traffic Control Requirements

LADOT recommends that a construction work site traffic control plan be submitted to LADOT's Citywide Temporary Traffic Control Section or Permit Plan Review Section for review and approval prior to the start of any construction work. Refer to <a href="http://ladot.lacity.org/businesses/temporary-traffic-control-plans">http://ladot.lacity.org/businesses/temporary-traffic-control-plans</a> to determine which section to coordinate review of the work site traffic control plan. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. LADOT also recommends that all construction related truck traffic be restricted to off-peak hours to the extent feasible.

#### 5. TDM Ordinance Requirements

The TDM Ordinance (LAMC 12.26 J) is currently being updated. The updated ordinance, which is currently progressing through the City's approval process, will:

- Expand the reach and application of TDM strategies to more land uses and neighborhoods,
- Rely on a broader range of strategies that can be updated to keep pace with technology,
   and
- Provide flexibility for developments and communities to choose strategies that work best for their neighborhood context.

Although not yet adopted, LADOT recommends that the applicant be subject to the terms of the proposed TDM Ordinance update expected in the future. The updated ordinance is expected to be completed prior to the anticipated construction of this project, if approved.

#### 6. Development Review Fees

Section 19.15 of the LAMC identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

If you have any questions, please contact Russell Hasan at (213) 972-7024.

#### Attachments

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c: Steven Bautista, Council District 14
Hokchi Chiu, Central District, BOE
Kaylinn Pell, Central District, DOT
Taimour Tanavoli, Case Management Office, DOT
Emily Wong, Gibson Transportation Consulting, Inc.



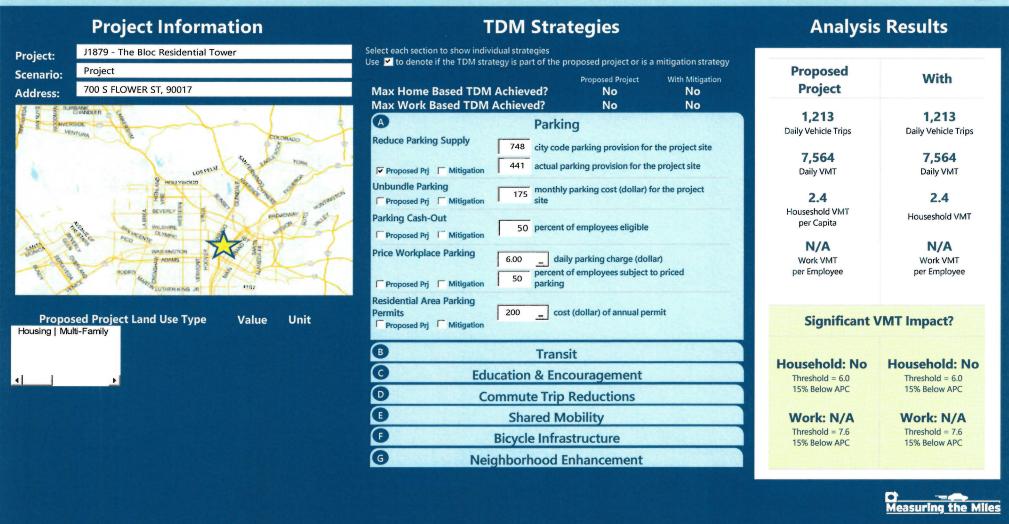


PROJECT SITE PLAN

FIGURE 1

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





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

**Report 1: Project & Analysis Overview** 

Date: April 27, 2022

Project Name: J1879 - The Bloc Residential Tower

Project Scenario: Project





	Project Information	tion		
Land	l Use Type	Value	Units	
	Single Family	0	DU	
	Multi Family	466	DU	
Housing	Town/touse		DU	
	Hotel	0	Rooms	
	Motel	0	Rooms	
	Family	0	DU	
ffordable Housing	Senior	0	OU	
ffordable nousing	Special Needs	0	DU	
	Permanent Supportive	0	DU	
	General Retail	0.000	ksf	
	Furniture Store	0.000	ksj	
	Pharmacy/Drugstore		ksf	
	Supermarket		ksf	
	Bank	0.000	ksf	
	Health Club		ksf	
Day of the second	High-Turnover Sit-Down		A 1 1 2 2 2 2 2 3 1	
Retail	Restaurant	0.000	ksf	
	Fast-Food Restourant	0.000	ksf	
	Quality Restaurant	0.000	ksf	
	Auto Repoir		ksf	
	Home Improvement	0.000	ksf	
	Free-Standing Discount	0.000	ksf	
	Movie Theater	0	Seats	
0.00	General Office	0.000	ksf	
Office	Medical Office	0.000	ksf	
	Light industrial	0.000	ksj	
Industrial	Manufacturing		ksf	
	Warehousing/Self-Storage	0.000	ksf	
	University	0	Students	
	High School		Students	
School	Middle School	0	Students	
	Elementory		Students	
	Private School (K-12)	0	Students	
Other		0	Trips	

	Analysis Results							
	Total Employees: 0							
	Total Population	: 1,050						
Propo	sed Project	With M	litigation					
1,213	Daily Vehicle Trips	1,213	Daily Vehicle Trips					
7,564	Daily VMT	7,564	Daily VMT					
	Household VMT		Household VMT per					
2.4	per Capita	2.4	Capita					
21/2	Work VMT	21/2	Work VMT per					
N/A	per Employee	N/A	Employee					
	Significant VMT	Impact?						
	APC: Cent	ral						
	Impact Threshold: 15% Be	low APC Average						
	Household =	6.0						
	Work = 7.							
Propo	sed Project	With M	litigation					
VMT Threshold	Impact	VMT Threshold	Impact					
Household > 6.0	No	Household > 6.0	No					
Work > 7.6	N/A	Work > 7.6	N/A					



Strate	gy Type	DM Strategy Inpo Description	Proposed Project	Mitigations
		City code parking	748	748
	Reduce parking suppl	Actual parking provision (spaces)	441	441
	Unbroule perking	Musely and for an find (3)	C m	
Parking	Profiling problems	Construction of the Constr	95	
	A Commence of the second	consporting charge	38.85	\$5.00
	production of the same of the	Krigisywo syryan la	The same of the sa	
	Systematic con-	predictions,		
	ggs. et ser y e	metric (S)		
		(cont. on following pag	e)	
Strate		Strategy Inputs, Description	Cont. Proposed Project	Mitigations
Strate	у Түре	Description	Proposed Project	ivitigations
		hage deeps (increasely to describe (in)	DN.	
		Falling constitution		
	hermonyl	chaire has a personn of rated desty trans)	00	
		Cognision project		
		ely inproved ji 1986. In 1986	2	
Transit		Depart of		
		Down tradition, highly		
	regression statio	Crysteen and	94	
		Anning region (%)		
		Constraint end residents explore (b)		100
	Total school	Armed Property		
		Street Street State	50.00	
		(A) (A) (A) (A)		
		Clubble heer mile		
Education &		esidents continuologidal	-	479
Education & Encouragement		(cont. on following page	(%)	295 295
incouragement	TDA	(cont on following pag	, Cont.	250
incouragement	behalfor frompo amprom transching and everlating	A Strategy Inputs Description	, Cont. Proposed Project	Mitigations
incouragement	TDA egy Type	A Strategy Inputs	, Cont.	250
incouragement	TDM agy Type	A Strategy Inputs Description	, Cont. Proposed Project	250
Encouragement Strat	TDh egyType	A Strategy Inputs Description	, Cont. Proposed Project	Mitigations
Strat	TDM agy Type	A Strategy Inputs Description	, Cont. Proposed Project	Mitigations
Encouragement Strat	TDM agy Type	A Strategy Inputs Description	, Cont. Proposed Project	Mitigations
Strat	TDM agy Type	A Strategy Inputs Description	, Cont. Proposed Project	Mitigations
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Strat	TDM agy Type	A Strategy Inputs Description	, Cont. Proposed Project	Mitigations
Strat	egyType TDA	A Strategy Inputs Description	, Cont. Proposed Project	Mitigations
Strat	TDM agy Type	A Strategy Inputs Description	, Cont. Proposed Project	Mitigations
Strat	egyType TDA	A Strategy Inputs Description	, Cont. Proposed Project	Mitigations
Strat	and purpose of the property of	A Strategy Inputs Description	, Cont. Proposed Project	Mitigations
Strat  Commute Trip Reductions	and purpose of the property of	A Strategy Inputs Description	, Cont. Proposed Project	Mitigations
Strat  Commute Trip Reductions	and purpose of the property of	A Strategy Inputs Description	, Cont. Proposed Project	Mitigations
Strat  Commute Trip Reductions	and purpose of the property of	A Strategy Inputs Description	, Cont. Proposed Project	Mitigations
Strat  Commute Trip Reductions	agy Type	A Strategy Inputs Description	(cont.  Proposed Project	Mitigations
Strat  Commute Trip Reductions	and participation of the parti	A Strategy Inputs Description	(c), Cont. Proposed Project	Mitigations
Strat  Commute Trip  Reductions	egy Type  TDi	A Strategy Inputs Description	(c), Cont. Proposed Project	Mitigations
Strat  Commute Trip  Reductions	egy Type  TDA	A Strategy Inputs Description  (cont. on following pa	, Cont. Proposed Project	Mitigations
Strat  Commute Trip Reductions  Shared Mobility  Strat	egyType  TDA	A Strategy Inputs Description  (cont. on following pa V Strategy Inputs Description  Meets City Bible Parking Code	cont. Proposed Project  sel, Cont. Proposed Project	Mitigations
Strat  Commute Trip Reductions  Shared Mobility	egy Type  TDi  egy Type  Totale filte parking	A Strategy Inputs Description  (cont. on following pa V Strategy Inputs Description  Meets City Bike	(c)  Cont.  Proposed Project  (se)  Cont.  Proposed Project	Mitigations
Strat  Commute Trip Reductions  Shared Mobility  Strat	egy Type  TDI  egy Type  include filte parking per LAMC	(cent on following pa W Strategy Inputs Description  West City Bike Parking Code (Yes/No)	(c)  Cont.  Proposed Project  (se)  Cont.  Proposed Project	Mitigations
Strat  Commute Trip Reductions  Shared Mobility  Strat  Bicycle	agy Type  TDI  egy Type  toctude Bike parking per LAMC	A Strategy Inputs Description  (cont on following pa VI Strategy Inputs Description  Meets City Bike Parking Code (Yes/No)	(cont.  Proposed Project  (se)  (cont.  Proposed Project  (se)  (cont.  Proposed Project	Mittigations  Mittigations  Yes
Strat  Commute Trip Reductions  Shared Mobility  Strat  Bicycle	egy Type  TDI  egy Type  include filte parking per LAMC	(cont on following pa Vi Strategy Inputs Description  Vi Strategy Inputs Description  Meets City Bike Parking Code (Yes/No)	(cont.  Proposed Project  (se)  (cont.  Proposed Project  (se)  (cont.  Proposed Project	Mittigations  Mittigations  Yes
Strat  Commute Trip Reductions  Shared Mobility  Strat  Bicycle	egy Type  TDI  egy Type  include filte parking per LAMC	(cont. on following pa Vi Strategy Inputs Description  Vi Strategy Inputs Description  Meets City Bibe Parking Code (Yes/Ne)	(cont.  Proposed Project  (se)  (cont.  Proposed Project  (se)  (cont.  Proposed Project	Mittigations  Mittigations  Yes
Strat  Commute Trip Reductions  Shared Mobility  Strat  Bicycle Infrastructure	egy Type  TDI  egy Type  toctude filte parking per LAMC	(cont on following pa Vi Strategy Inputs Description  Vi Strategy Inputs Description  Meets City Bike Parking Code (Yes/No)	(cont.  Proposed Project  (se)  (cont.  Proposed Project  (se)  (cont.  Proposed Project	Mittigations  Mittigations  Yes
Strat  Commute Trip Reductions  Shared Mobility  Strat  Bicycle Infrastructure	egy Type  TDI  egy Type  toctude filte parking per LAMC	(cont on following pa VI Strategy Inputs Description  Meets City Bike Parking Code (Yes/Ne)	se)  , Cont. Proposed Project  se) , Cont. Proposed Project  Yes	Mittigations  Mittigations  Yes

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

**Report 3: TDM Outputs** 

Date: April 27, 2022
Project Name: J1879 - The Bloc Residential Tower
oject Scenario: Project

Project Scenario: Project Project Address: 700 S FLOWER ST, 90017



#### **TDM Adjustments by Trip Purpose & Strategy** Place type: Urban Home Based Work Home Based Work Home Based Other Non-Home Based Other Non-Home Based Other Home Based Other Production Attraction ed Mitigated Production Attraction Attraction Production Source Mitigated Proposed Mitigated Proposed Mitigated Proposed Mitigated Proposed Mitigated Proposed Reduce parking supply 13% 13% 13% 13% 13% 13% 13% 13% 13% 13% 13% 13% **TDM Strategy** Appendix, Parking **Parking** sections Oλ 0% 1-5 TDM Strategy **Transit** Appendix, Transit sections 1 - 3 TDM Strategy Appendix, **Education &** Education & **Encouragement** Encouragement sections 1 - 2 TDM Strategy Appendix, **Commute Trip** Commute Trip Reductions Reductions sections 1 - 4 **TDM Strategy** Appendix, Shared **Shared Mobility** Mobility sections

				TDM A	djustmen	ts by Trip	Purpose	& Strateg	y, Cont.					
						Place type	: Urban							
			ased Work duction		ased Work raction		ased Other duction		ased Other raction		e Based Other duction		Based Other raction	Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle	Implement/ Implique on street bicycle facility	0.0%	20%	0.0%	0.0%	0.0%	0.0%	0.0%	G.0%	0.0%	0.0%	0.0%	00%	TDM Strateg
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, Bicy Infrastructur
	include secure bike packing 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 Strateg Appendix,
Enhancement	Pedestrian network	2.0%	0.0%	0.0%	0.0%	0,0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	Neighborhood Enhancement

				<b>Final Con</b>	nbined &	Maximun	n TDM Ef	fect				
	Home Based Work Production		Home Based Work Home Based Other Attraction 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	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
MAX. TDM EFFECT	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%

= Minii	mum (X%, 1-[(1-A)*(1- where X%=	B)])
PLACE	urban	75%
	compact infill	40%
TYPE MAX:	suburban center	20%
	Suburbon	15%

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

### **CITY OF LOS ANGELES VMT CALCULATOR Report 4: MXD Methodology**

Date: April 27, 2022

Project Name: J1879 - The Bloc Residential Tower

Project Address: 700 S FLOWER ST, 90017



MXD Methodology - Project Without TDM								
	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT		
Home Based Work Production	418	-32.5%	282	5.2	2,174	1,466		
Home Based Other Production	1,157	-68.0%	370	3.9	4,512	1,443		
Non-Home Based Other Production	540	-16.1%	453	8.4	4,536	3,805		
Home-Based Work Attraction	0	0.0%		7.8	0	0		
Home-Based Other Attraction	551	-67.2%	181	6.5	3.582	1,177		
Non-Home Based Other Attraction	131	-16.8%	100	7.4	060	907		

	MXD	/lethodology w	ith TDM Measu	ıres			
		Proposed Project		Project with Mitigation Measures			
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT	
Home Based Work Production	-13.0%	245	1,275	-13.0%	245	1,275	
Home Based Other Production	-13.0%	322	1,255	-13.0%	322	1,255	
Non-Home Based Other Production	-13.0%	394	3,309	-13.0%	394	3,309	
Home-Based Work Attraction	-13.0%			-13.0%		0.00	
Home-Based Other Attraction	-13.0%	157	1,023	-13.0%	157	1,023	
Non-Home Based Other Attraction	-13.0%	95	702	-13.0%	95	702	

	13.070	-13.076 33 702					
	MXD VMT Methodology Per Capita & Pe	r Employee					
	Total Populati	•					
	Total Employees: 0  APC: Central						
	Proposed Project	Project with Mitigation Measures					
Total Home Based Production VMT	2,530	2,530					
Total Home Based Work Attraction VMT	0	0					
Total Home Based VMT Per Capita	2.4						
Total Work Based VMT Per Employee	N/A	N/A					

#### Attachment C

# TABLE 13 FUTURE WITH PROJECT CONDITIONS (YEAR 2031) INTERSECTION LEVELS OF SERVICE ANALYSIS

No	Intersection	Peak Hour	Future without Project		Future with Project	
			Delay	LOS	Delay	LOS
1.	Flower Street &	AM	26.5	C	26.6	C
	7th Street	PM	83.6	F	90.8	F
2.	Hope Street &	AM	27.5	C	27.7	C
	7th Street	PM	69.9	E	71.1	E
3.	Flower Street &	AM	23.8	C	23.7	C
	8th Street	PM	63.9	E	66.9	E
4.	Hope Street & 8th Street	AM PM	28.2 23.5	CC	34.7 25.2	CC

#### Notes:

Delay is measured in seconds per vehicle

LOS = Level of service

Results per Synchro 11 (HCM methodology)