

# Appendix L

Los Angeles Department of  
Transportation Technical  
Memorandum

and

Traffic Report

**CITY OF LOS ANGELES**  
INTER-DEPARTMENTAL CORRESPONDENCE

942 N Broadway  
DOT Case No. CEN 18-47218

Date: October 11, 2018

To: Heather Bleemers, City Planner  
Department of City Planning

From: Wes Pringle, Transportation Engineer  
Department of Transportation

Subject: **TECHNICAL MEMORANDUM FOR THE PROPOSED MIXED-USE DEVELOPMENT LOCATED AT 942 NORTH BROADWAY**

The Department of Transportation (DOT) has reviewed the technical memorandum dated September 2018, prepared by Gibson Transportation Consulting, Inc., for the proposed mixed-use development located at 942 North Broadway. In order to evaluate the effects of the project's traffic on the available transportation infrastructure, the significance of the project's traffic impacts is measured in terms of change to the volume-to-capacity (V/C) ratio between the "future no project" and the "future with project" scenarios. This change in the V/C ratio is compared to DOT's established threshold standards to assess the project-related traffic impacts. The transportation impact analysis included the detailed analysis of 11 signalized intersections. Based on DOT's current traffic impact criteria<sup>1</sup>, none of these signalized intersections would be significantly impacted by project-related traffic prior to mitigation. The results of the transportation impact analysis, which accounted for other known development projects in evaluating potential cumulative impacts, adequately evaluated the project's traffic impacts on the surrounding community and is summarized in **Attachment 1**.

## **DISCUSSION AND FINDINGS**

### **A. Project Description**

The proposed apartment development at 942 North Broadway will replace 16,965 square feet of retail with 178 multi-dwelling units (nine of which will be designated as affordable), 2,253 square feet of quality restaurant space, 2,252 square feet of high turnover restaurant space, 532 square feet of retail, and 31,777 square feet of office space.

The project will provide on-site parking via one driveway on North Broadway. The number of parking spaces that will be provided by the project was not disclosed in the study. The project is expected to be completed by 2021.

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<sup>1</sup> Per the DOT Transportation Impact Analysis Policies and Procedures, a significant impact is identified as an increase in the Critical Movement Analysis (CMA) value, due to project related traffic, of 0.01 or more when the final ("with project") Level of Service (LOS) is LOS E or F; an increase of 0.020 or more when the final LOS is LOS D; or an increase of 0.040 or more when the final LOS is LOS C.

B. Trip Generation

The project is estimated to generate a net increase of 672 daily trips, 66 trips in the a.m. peak hour, and 59 trips in the p.m. peak hour. The trip generation estimates are based on formulas published by the Institute of Transportation Engineers (ITE) Trip Generation, 10<sup>th</sup> Edition, 2017. A copy of the trip generation table can be found in **Attachment 2**.

C. Freeway Analysis

The traffic study included a freeway impact analysis that was prepared in accordance with the State-mandated Congestion Management Program (CMP) administered by the Los Angeles County Metropolitan Transportation Authority (MTA). According to this analysis, the project would not result in significant traffic impacts on any of the evaluated freeway mainline segments. To comply with the Freeway Impact Analysis Agreement executed between Caltrans and DOT in October 2013, the study also included a screening analysis to determine if additional evaluation of freeway mainline and ramp segments was necessary beyond the CMP requirements. The project did not meet or exceed any of the four thresholds defined in the latest agreement, updated in December 2015. Exceeding one of the four screening criteria would require the applicant to work directly with Caltrans to prepare more detailed freeway analyses. No additional freeway analysis was required.

D. Construction Impacts

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

## PROJECT REQUIREMENTS

A. Highway Dedication And Street Widening Requirements

On January 20, 2016, the City Council adopted the Mobility Plan 2035 which is the new Mobility Element of the General Plan. A key feature of the updated plan is to revise street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. Per the new Mobility Element, **North Broadway** is designated as **an Avenue II, which would require a 28-foot half-width roadway and a 43-foot half-width right-of-way**. The applicant should check with BOE's Land Development Group to determine if there are any other applicable highway dedication, street widening and/or sidewalk requirements for this project.

B. Parking Requirements

The project will provide on-site parking via one driveway on North Broadway. The number of parking spaces that will be provided by the project was not disclosed in the study. The applicant should check with the Department of Building and Safety on the number of Code-required parking spaces needed for the project.

C. Driveway Access and Circulation

The proposed site plan illustrated in **Attachment 3** is acceptable to DOT; however, review of the study does not constitute approval of the driveway dimensions and internal circulation schemes. Those require separate review and approval and should be coordinated with DOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 5th Floor, Room 550, at 213-482-7024). In order to minimize potential building design changes, the applicant should contact DOT for driveway width and internal circulation requirements so that such traffic flow considerations are designed and incorporated early into the building and parking layout plans. All new driveways should be Case 2 driveways and any security gates should be a minimum 20 feet from the property line. All truck loading and unloading should take place on site with no vehicles backing into the project via any of the project driveways.

D. Development Review Fees

An ordinance adding Section 19.15 to the Los Angeles Municipal Code relative to application fees paid to DOT for permit issuance activities was adopted by the Los Angeles City Council in 2009. This ordinance 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 Johnathan Yu of my staff at (213) 972-4993.

Attachments

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**ATTACHMENT 1**  
**Summary of Volume to Capacity Ratios (V/C) and Level of Service (LOS)**

**TABLE 9**  
**EXISTING WITH PROJECT CONDITIONS (YEAR 2018)**  
**INTERSECTION LEVELS OF SERVICE AND IMPACTS**

No	Intersection	Peak Hour	Existing Conditions		Existing with Project Conditions			
			V/C	LOS	V/C or Delay	LOS	Change in V/C or Delay	Significant Impact
1.	Broadway & Cesar Chavez Avenue	AM	0.792	C	0.797	C	0.005	NO
		PM	0.740	C	0.744	C	0.004	NO
2.	Alameda Street & Main Street/Bauchet Street	AM	0.271	A	0.271	A	0.000	NO
		PM	0.447	A	0.447	A	0.000	NO
3.	Broadway & Alpine Street	AM	0.634	B	0.640	B	0.006	NO
		PM	0.669	B	0.675	B	0.006	NO
4.	Alameda Street & Alpine Street	AM	0.591	A	0.592	A	0.001	NO
		PM	0.488	A	0.489	A	0.001	NO
5.	Hill Street & College Street	AM	0.661	B	0.661	B	0.000	NO
		PM	0.588	A	0.589	A	0.001	NO
6.	Broadway & College Street	AM	0.592	A	0.600	A	0.008	NO
		PM	0.763	C	0.772	C	0.009	NO
7.	Spring Street & College Street	AM	0.560	A	0.562	A	0.002	NO
		PM	0.408	A	0.412	A	0.004	NO
8.	Broadway & Bernard Street	AM	0.593	A	0.598	A	0.005	NO
		PM	0.565	A	0.569	A	0.004	NO
9.	Broadway & Bishops Road	AM	0.813	D	0.817	D	0.004	NO
		PM	0.579	A	0.584	A	0.005	NO
10.	Broadway & Solano Avenue	AM	0.824	D	0.831	D	0.007	NO
		PM	0.481	A	0.487	A	0.006	NO
11.	Pasadena Avenue & Broadway	AM	0.852	D	0.857	D	0.005	NO
		PM	0.442	A	0.446	A	0.004	NO

**TABLE 10  
FUTURE WITH PROJECT CONDITIONS (YEAR 2021)  
INTERSECTION LEVELS OF SERVICE AND IMPACTS**

No	Intersection	Peak Hour	Future without Project Conditions		Future with Project Conditions			
			V/C	LOS	V/C or Delay	LOS	Change in V/C or Delay	Significant Impact
1.	Broadway & Cesar Chavez Avenue	AM	0.936	E	0.940	E	0.004	NO
		PM	0.878	D	0.882	D	0.004	NO
2.	Alameda Street & Main Street/Bauchet Street	AM	0.337	A	0.338	A	0.001	NO
		PM	0.519	A	0.520	A	0.001	NO
3.	Broadway & Alpine Street	AM	0.716	C	0.722	C	0.006	NO
		PM	0.745	C	0.750	C	0.005	NO
4.	Alameda Street & Alpine Street	AM	0.679	B	0.680	B	0.001	NO
		PM	0.583	A	0.584	A	0.001	NO
5.	Hill Street & College Street	AM	0.698	B	0.698	B	0.000	NO
		PM	0.657	B	0.658	B	0.001	NO
6.	Broadway & College Street	AM	0.704	C	0.713	C	0.009	NO
		PM	0.940	E	0.948	E	0.008	NO
7.	Spring Street & College Street	AM	0.683	B	0.686	B	0.003	NO
		PM	0.532	A	0.535	A	0.003	NO
8.	Broadway & Bernard Street	AM	0.647	B	0.652	B	0.005	NO
		PM	0.647	B	0.651	B	0.004	NO
9.	Broadway & Bishops Road	AM	0.892	D	0.896	D	0.004	NO
		PM	0.659	B	0.664	B	0.005	NO
10.	Broadway & Solano Avenue	AM	0.979	E	0.986	E	0.007	NO
		PM	0.628	B	0.635	B	0.007	NO
11.	Pasadena Avenue & Broadway	AM	0.889	D	0.895	D	0.006	NO
		PM	0.442	A	0.445	A	0.003	NO

## ATTACHMENT 2 Project Trip Generation Estimates

**TABLE 8  
PROJECT TRIP GENERATION ESTIMATES**

TRIP GENERATION RATES [a]									
Land Use	ITE Land Use	Rate	Daily	Morning Peak Hour			Afternoon Peak Hour		
				In	Out	Total	In	Out	Total
High-Rise Residential (Dense Multi-Use Urban) [b]	222	per Dwelling Unit	2.07	12%	88%	0.21	70%	30%	0.19
Retail	820	per ksf	37.75	62%	38%	0.94	48%	52%	3.81
Quality Restaurant	931	per ksf	83.84	55%	45%	0.73	67%	33%	7.80
High-Turnover (Sit-Down) Restaurant	932	per ksf	112.18	55%	45%	0.94	62%	38%	9.77
General Office (Dense Multi-Use Urban) [c]	710	per ksf	9.74	86%	14%	0.83	17%	83%	0.87
MIXED USE INTERNAL CAPTURE CREDIT [d]									
High-Rise Residential (Dense Multi-Use Urban) [b]	220		0%	0%	0%		0%	0%	
Quality Restaurant	931		8%	46%	27%		12%	21%	
High-Turnover (Sit-Down) Restaurant	932		30%	46%	27%		12%	21%	
General Office (Dense Multi-Use Urban) [c]	710		0%	0%	0%		0%	0%	
Retail	820		0%	0%	0%		0%	0%	
TRIP GENERATION ESTIMATES									
Land Use	ITE Land Use	Size	Daily	Morning Peak Hour			Afternoon Peak Hour		
				In	Out	Total	In	Out	Total
<b>Proposed Project</b>									
High-Rise Residential (Dense Multi-Use Urban) [b]	222	178 DU	368	4	33	37	24	10	34
Quality Restaurant	931	2,253 ksf	189	1	1	2	12	6	18
Internal Capture Adjustment [d]			-10	0	0	0	-1	-1	-2
Transit/HOV Adjustment - 25% [e]			-45	0	-1	-1	-3	-1	-4
Pass-By Trip Adjustment - 10% [f]			-13	0	0	0	-1	0	-1
High-Turnover (Sit-Down) Restaurant	932	2,252 ksf	253	12	10	22	14	8	22
Internal Capture Adjustment [d]			-75	-6	-3	-9	-2	-2	-4
Transit/HOV Adjustment - 25% [e]			-45	-2	-1	-3	-3	-2	-5
Pass-By Trip Adjustment - 20% [f]			-27	-1	-1	-2	-2	-1	-3
General Office (Dense Multi-Use Urban) [c]	710	31,777 ksf	310	22	4	26	5	23	28
Retail	820	0,532 ksf	20	1	0	1	1	1	2
Internal Capture Adjustment [d]			0	0	0	0	0	0	0
Transit/HOV Adjustment - 25% [e]			-5	0	0	0	0	-1	-1
Pass-By Trip Adjustment - 50% [f]			-8	-1	0	-1	-1	0	-1
<b>TOTAL PROPOSED PROJECT TRIPS</b>			<b>912</b>	<b>30</b>	<b>42</b>	<b>72</b>	<b>43</b>	<b>40</b>	<b>83</b>
<b>Existing to be Removed</b>									
Retail	820	16,965 ksf	640	10	6	16	31	34	65
Transit/HOV Adjustment - 25% [e]			-100	-3	-1	-4	-8	-8	-10
Pass-By Trip Adjustment - 50% [f]			-240	-4	-2	-6	-12	-13	-25
<b>TOTAL REMOVED PROJECT TRIPS</b>			<b>240</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>11</b>	<b>13</b>	<b>24</b>
<b>TOTAL - NET NEW PROJECT TRIPS</b>			<b>672</b>	<b>27</b>	<b>39</b>	<b>66</b>	<b>32</b>	<b>27</b>	<b>59</b>

**Notes:**

- kst: 1,000 square feet
- [a] Trip generation rates are from *Trip Generation, 10th Edition* (Institute of Transportation Engineers, 2017) and are based on developments located in "General Urban/Suburban" area, unless otherwise noted.
- [b] Trip generation rates for multi-family housing (high-rise) are based on developments located in "Dense Multi-Use Urban" area as detailed in *Trip Generation, 10th Edition*. These base rates already include adjustments for transit/walk-in, pass-by, and internal capture as detailed below.
- [c] Trip generation rates for general office are based on developments located in "Dense Multi-Use Urban" area as detailed in *Trip Generation, 10th Edition*. Daily trip rate is based on developments located in "General Urban/Suburban" area as no vehicle-rate is available for "Dense Multi-Use Urban" location. These rates already include adjustments for transit/walk-in, pass-by, and internal capture as detailed below.
- [d] Internal capture adjustments account for person trips made between distinct land uses within a mixed-use development without using an off-site road system. Based on the NCHRP 8-51 Internal Trip Capture Estimation Tool (National Cooperative Highway Research Program Report 684 – Enhancing Internal Trip Capture Estimation for Mixed-Use Developments, Transportation Research Board and National Research Council, 2011), the Project trips have been adjusted to account for internal capture.
- [e] Per LADOT's *Transportation Impact Study Guidelines*, the Project Site is located within walking distance from the Metro Gold Line Chinatown station, therefore a transit reduction is applied to account for transit usage and walking visitor arrivals from the surrounding neighborhoods and adjacent commercial developments, and for arrivals via taxi and carpool services.
- [f] Pass-by adjustments account for Project trips made as an intermediate stop on the way from an origin to a primary trip destination without route diversion.

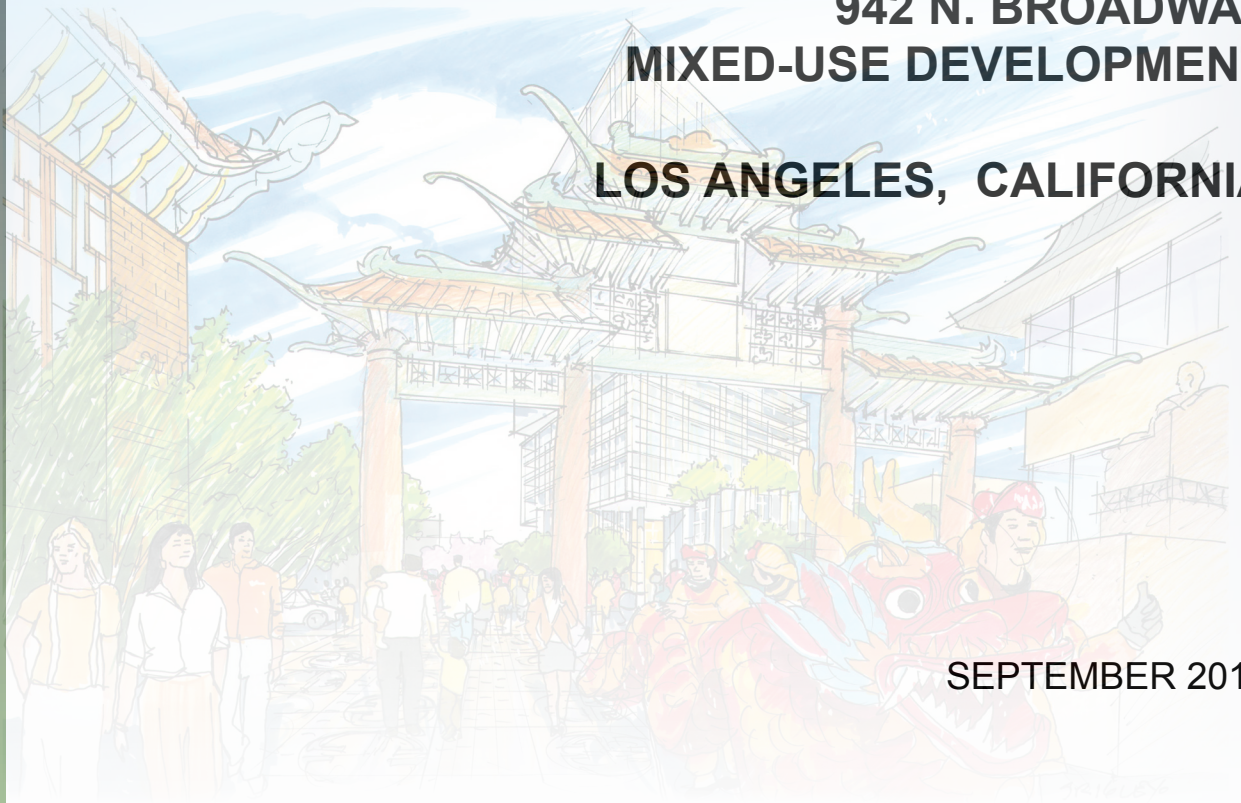
### ATTACHMENT 3 Project Site plan





*DRAFT*

**TRANSPORTATION IMPACT STUDY  
FOR THE  
942 N. BROADWAY  
MIXED-USE DEVELOPMENT  
LOS ANGELES, CALIFORNIA**



SEPTEMBER 2018

PREPARED FOR

**TF BROADWAY PARTNERSHIP LP**

PREPARED BY



***DRAFT***

**TRANSPORTATION IMPACT STUDY  
FOR THE  
942 N. BROADWAY  
MIXED-USE DEVELOPMENT  
LOS ANGELES, CALIFORNIA**

September 2018

Prepared for:

**TF BROADWAY PARTNERSHIP LP**

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# ***Chapter 1***

## ***Introduction***

This study presents the transportation impact analysis for the proposed 942 N. Broadway Mixed-Use Development (Project) in the City of Los Angeles (City). The methodology and base assumptions used in the analysis were established in consultation with the Los Angeles Department of Transportation (LADOT).

### **PROJECT DESCRIPTION**

The Project proposes a 27-story mixed-use development consisting of 178 multi-family dwelling units (of which 169 are intended as market rate and nine are designated as affordable dwelling units), 2,253 square feet (sf) of quality restaurant space, 2,252 sf of high turnover restaurant space, 532 sf of retail, and 31,777 sf of office space that will replace an existing 16,965 sf retail center. The Project is anticipated to be complete by 2021.

The Project will provide vehicular and bicycle parking in accordance with the Los Angeles Municipal Code (LAMC). The conceptual Project site plan is shown in Figure 1.

### **PROJECT LOCATION AND TRANSPORTATION ANALYSIS STUDY AREA**

The Project Site extends along Broadway just north of College Street between the Blossom Plaza project and a shopping center. The Project Site is bounded by retail to the north, Broadway to the west, the Los Angeles County Metropolitan Transportation Authority (Metro) Gold Line to the east, and the Blossom Plaza project to the south. Most nearby uses are office, commercial, residential, and the recent restoration of Los Angeles Historic Park. There is no direct access to Los Angeles Historic Park from the Project Site.

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The Project Site is located approximately 0.25 miles east of the Harbor Freeway (SR 110), approximately 0.6 miles north of the Hollywood Freeway (US 101), and approximately 1.0 mile west of the Golden State Freeway (I-5), all of which provide regional access to and from downtown Los Angeles.

As shown in Figure 2, the transportation analysis Study Area includes a geographic area generally bounded by SR 110, US 101, and the Los Angeles River. Detailed transportation analyses were conducted at key intersections within the Study Area.

## **STUDY SCOPE AND ANALYSIS CONDITIONS**

The scope of analysis for this study was developed in consultation with LADOT. The base assumptions and technical methodologies (i.e., trip generation, study locations, analysis methodology, etc.) were identified and agreed to in a Memorandum of Understanding (MOU) dated August 9, 2018, which was reviewed and approved by LADOT. As part of the MOU, a review of the freeway impact analysis screening criteria on the California Department of Transportation (Caltrans) facilities (i.e., ramps and freeway segments) was prepared pursuant to *First Amendment to the Agreement between LADOT and Caltrans District 7 on Freeway Impact Analysis Procedures* (State of California and City of Los Angeles, December 15, 2015) (“Caltrans Agreement”). As detailed in the MOU, the Project-related traffic on Caltrans freeway facilities would not exceed the thresholds of the Caltrans Agreement and no further Caltrans analysis was required. A copy of the signed MOU, which includes the Caltrans freeway screening analysis, is provided in Appendix A.

The study analyzed the potential Project-generated transportation impacts on the street system in the vicinity of the Project Site as compared to existing conditions and projected future conditions at the time the Project is expected to be completed (Year 2021). Potential intersection impacts 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 11 study intersections in the vicinity of the Project Site within the City were selected for detailed transportation analysis, as shown in Figure 2.

This study evaluated the potential for impacts caused by the Project on the street system surrounding the Project Site. Consistent with *Transportation Impact Study Guidelines* (LADOT,

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December 2016), the following traffic conditions were developed and analyzed as part of this study:

- Existing Conditions (Year 2018) – The analysis of existing traffic conditions provides a basis for the assessment of future traffic conditions. The Existing Conditions analysis includes a description of key area streets and highways, traffic volumes and current operating conditions, and transit service in the Study Area. Intersection turning movement counts at the study intersections were collected in December 2017 and January 2018. Fieldwork (lane configurations and signal phasing) for the analyzed intersections was also collected and is shown in Appendix B. The traffic count worksheets are provided in Appendix C and level of service (LOS) worksheets are provided in Appendix D.
- Existing with Project (Year 2018) – This scenario analyzes the potential intersection operating conditions that could be expected if the Project were built under existing conditions. In this scenario, the Project-generated traffic is added to the Existing Conditions.
- Future without Project Conditions (Year 2021) – This scenario analyzes the potential intersection operating conditions that could be expected as a result of regional growth and related project traffic in the Study Area by Year 2021. This analysis provides the conditions by which the Project impacts are evaluated in the future at full buildout.
- Future with Project Conditions (Year 2021) – This scenario analyzes 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.

### **Intersection Analysis Methodology**

Intersection capacity has been analyzed using the “Critical Movement Analysis (CMA) – Planning” (*Transportation Research Circular No. 212, Interim Materials on Highway Capacity*, Transportation Research Board, 1980) methodology required by the City. The CMA methodology was implemented using LADOT’s Calcadb Lite spreadsheet application to analyze intersection operating conditions. The methodology calculates the volume-to-capacity (V/C) ratio, which is used to determine the intersection LOS according to the LOS definitions provided in Table 1.

The CMA analysis for signalized study intersections accounts for the use of advanced automation in the traffic signal controllers. Each signalized intersection in Los Angeles is



equipped with the Automated Traffic Surveillance and Control (ATSAC) system and the Adaptive Traffic Control System (ATCS), which together provide a computer-based traffic signal control program that automatically and continually adjusts and optimizes traffic signal timing based on real-time traffic conditions. The automation system seeks to minimize the amount of delay and the number of vehicle stops throughout the transportation network. It also provides real-time video monitoring capabilities to LADOT engineers. LADOT estimates that this system improves intersection capacity by 10% over a traffic signal without the ATSAC and ATCS system. This capacity increase is applied to each intersection within the Calcadb Lite software and, therefore, is inherent in the analysis results.

### **Significant Impact Criteria**

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

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

*Source: City of Los Angeles*

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

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## **ADDITIONAL TRAFFIC ANALYSES**

### **Congestion Management Program**

An analysis was also conducted according to *2010 Los Angeles County Congestion Management Program* (Metro, 2010) (CMP) guidelines. The CMP is a State-mandated program that serves as the monitoring and analytical basis for transportation funding decisions in the County made through the Regional Transportation Improvement Program and State Transportation Improvement Program processes. The CMP requires that a Traffic Impact Analysis (TIA) be performed for (1) all CMP arterial monitoring intersections where a project would add 50 or more trips during either the morning or afternoon weekday peak hours and (2) all mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the morning or afternoon weekday peak hours. In addition, it requires a review of potential impacts to the regional transit system.

The required CMP analyses were performed, as detailed in Chapter 9, in accordance with the TIA guidelines referenced in the CMP.

### **State of California Senate Bill No. 743**

*State of California Senate Bill 743* (Steinberg, 2013) (SB 743), made effective in January 2014, requires the Governor's Office of Planning and Research to change the California Environmental Quality Act (CEQA) guidelines regarding the analysis of transportation impacts. Under SB 743, the focus of transportation analysis will shift from driver delay to reduction of greenhouse gas emissions (GHG), creation of multimodal networks and promotion of mixed-use developments. Although originally scheduled to be fully implemented in guidelines by January 1, 2016, an extension has allowed cities more time to establish an analysis methodology. The City is currently in the process of updating its travel demand model and transportation impact thresholds based on vehicle miles traveled (VMT). To better align with the State's multimodal transportation and environmental action goals, Caltrans is also pursuing VMT as a metric of project impacts, which is outlined in *Local Development – Intergovernmental Review Program Interim Guide* (Caltrans, Approved September 2016).

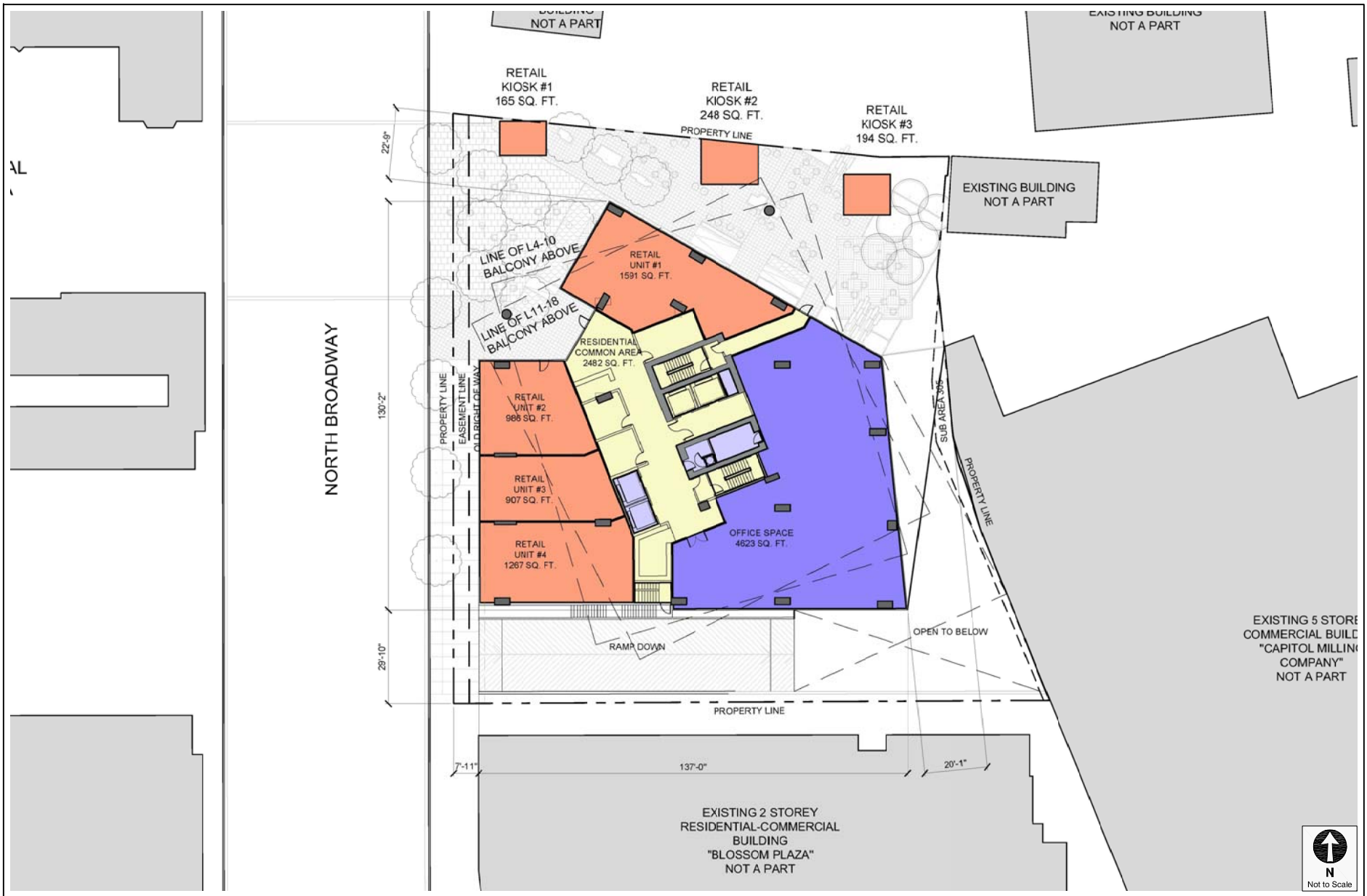
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The Project characteristics (e.g., its location, proximity to transit, access to other nearby destinations, pedestrian connections, bicycle amenities, etc.) would encourage non-auto modes of transportation such as walking, bicycling, carpool, vanpool, transit, etc. and, therefore, would reduce VMT to the Project Site and associated transportation-related GHG emissions.

The Project Site represents an urban/compact infill location within Los Angeles and is located near numerous transit lines, including approximately 700 feet from the Metro Gold Line Chinatown Station and approximately 1.0 mile from Union Station. The location efficiency of the Project Site would result in synergistic benefits that would reduce vehicle trips and VMT. Access to on-site uses would be provided from existing and proposed pedestrian pathways, as well as adequate bicycle parking. Streets within 0.5 miles of the Project Site are equipped with sidewalks and intersections that include marked crosswalks and countdown signal timers. The combined effects of these factors would reduce the Project's anticipated vehicle trips and VMTs and encourage walking and non-auto forms of transportation, which results in corresponding reductions in transportation-related emissions. At this time, the transportation analysis herein is pursuant to adopted rules and policies, while recognizing the benefits of transit-oriented development and the context of reduced VMT goals.

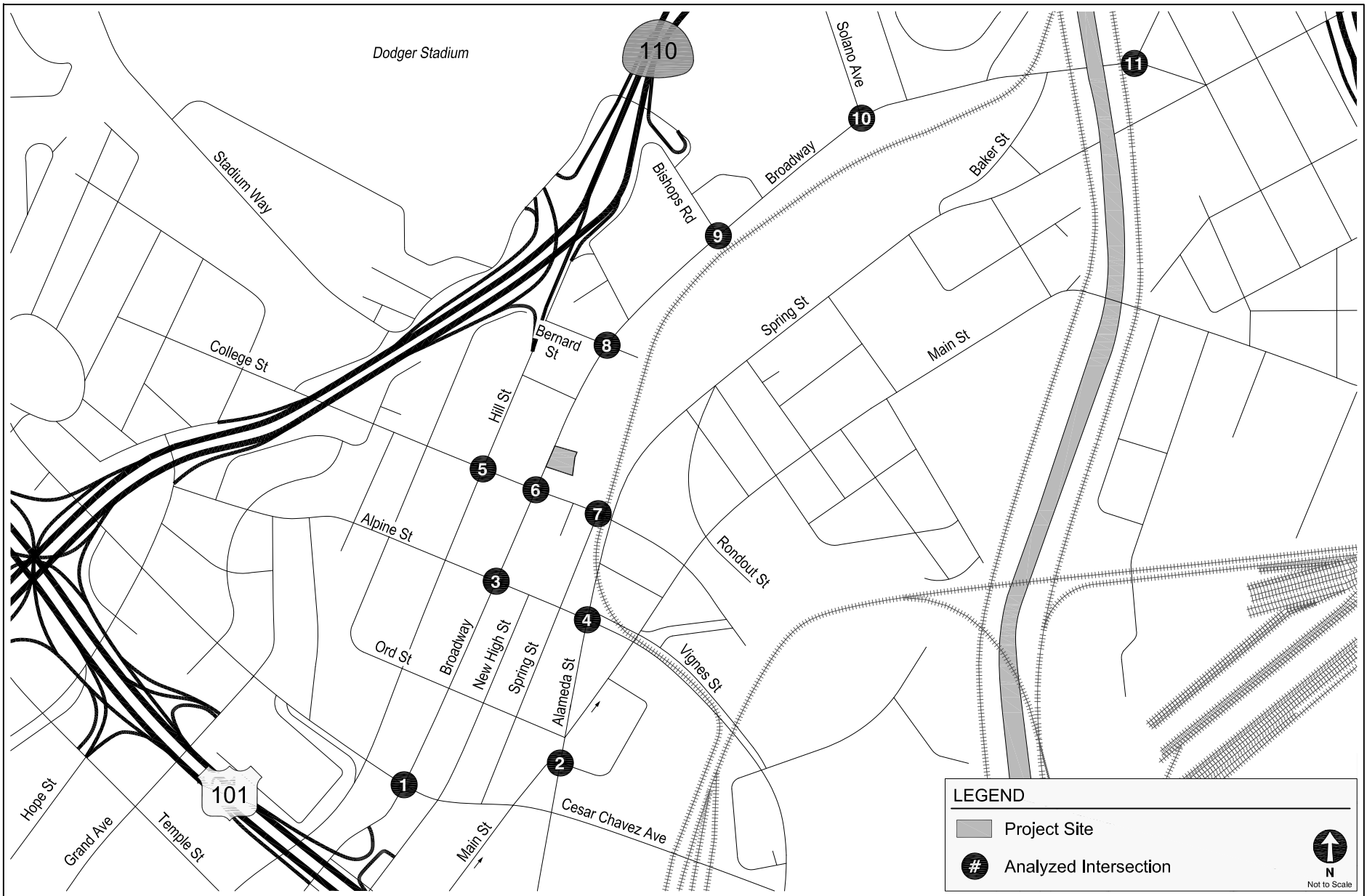
## **ORGANIZATION OF REPORT**

This report is divided into 10 chapters, including this introduction. Chapter 2 describes the existing circulation system, traffic volumes, and traffic conditions in the Study Area. Chapter 3 describes the development of the Future without Project Conditions. Chapter 4 describes the forecast Project traffic volumes and distribution through the Study Area. Chapter 5 presents the Existing with Project Conditions and associated analysis. Chapter 6 presents the Future with Project Conditions (Year 2021) and associated analysis. Chapter 7 presents the regional CMP analysis. Chapter 8 describes site access and internal circulation. Chapter 9 analyzes the potential effects of construction. Chapter 10 summarizes the analyses and study conclusions. The appendices contain additional analyses, as well as supporting documentation and additional details of the technical analyses.



PROJECT SITE PLAN

FIGURE  
1



STUDY AREA & ANALYZED INTERSECTIONS

FIGURE  
2

**TABLE 1**  
**LEVEL OF SERVICE DEFINITIONS FOR INTERSECTIONS**

Level of Service	V/C Ratio	Definition
A	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	0.601 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 - 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	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.

Source: *Transportation Research Circular No. 212, Interim Materials on Highway Capacity*  
(Transportation Research Board, 1980)

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## ***Chapter 2***

### ***Existing Conditions***

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

#### **STUDY AREA**

A transportation analysis study area generally comprises those intersections with the potential to experience significant transportation impacts due to the project as defined by the City, including intersections that are:

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

The Project Study Area was established in consultation with the LADOT based on the above criteria as well as peak hour Project trip generation, the anticipated distribution of Project traffic, and the existing intersections/corridor operations. As described in Chapter 1, a total of 11 study intersections located within the City were identified for detailed analysis of the above conditions. Figure 2, as shown in the previous chapter, illustrates the location of the Project Site in relation to the surrounding street system and the study intersections. The results of the transportation impact analysis detailed in this study were reviewed to ensure that all potentially significantly impacted intersections, prior to any improvements, were analyzed, and that the boundary of the Study Area was extended, as necessary, to confirm that there were no significant impacts at or

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beyond the Study Area periphery. As detailed later in this study, the study intersections on the Study Area periphery are not anticipated to be significantly impacted by the Project and no additional significant impacts are anticipated to occur beyond the Study Area. The intersections selected for evaluation are illustrated in Figure 2 and listed in Table 2.

Figure 2 graphically indicates the location of the Project Site in relation to the surrounding street system and the study intersections. The existing lane configurations at the analyzed intersections are provided in Appendix B.

## EXISTING STREET SYSTEM

The existing street system in the Study Area consists of a regional roadway system including freeways, primary and secondary arterials, and collector and local streets that provide regional, sub-regional, or local access and circulation within the Study Area. These transportation facilities generally provide two to six travel lanes and usually allow parking on either side of the street. Typically, the speed limits range between 25 and 35 miles per hour (mph) on the streets and between 55 and 65 mph on freeways.

Street classifications are designated in *Mobility Plan 2035, An Element of the General Plan* (Los Angeles Department of City Planning, January 2016) (the “Mobility Plan”) The Mobility Plan has revised street standards previously outlined in *City of Los Angeles Transportation Element of the General Plan* (Los Angeles Department of City Planning, 1999) in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. The available facilities in the Study Area are defined by the following in the Mobility Plan:

- Freeways are high-volume, high-speed roadways with limited access provided by interchanges that carry regional traffic through and do not provide local access to adjacent land uses.
- Arterial Streets are major streets that serve through traffic, as well as provide access to major commercial activity centers. Arterials are divided into two categories:
  - Boulevards represent the widest streets that typically provide regional access to major destinations and include two categories:



- Boulevard I provides up to four travel lanes in each direction with a target operating speed of 40 mph
- Boulevard II provides up to three travel lanes in each direction with a target operating speed of 35 mph
- Avenues pass through both residential and commercial areas and include three categories:
  - Avenue I provides up to two travel lanes in each direction with a target operating speed of 35 mph
  - Avenue II provides up to two travel lanes in each direction with a target operating speed of 30 mph
  - Avenue III provides up to two travel lanes in each direction with a target operating speed of 25 mph
- Collector Streets are generally located in residential neighborhoods and provide access to and from arterial streets for local traffic and are not intended for cut-through traffic. They provide one travel lane in each direction with operating speed of 25 mph.
- Local Streets are intended to accommodate lower volumes of vehicle traffic and provide parking on both sides of the street. They provide one travel lane in each direction with a target operating speed of 15 to 20 mph. Local streets include two categories:
  - Continuous local streets connect to other streets at both ends
  - Non-continuous local streets lead to a dead-end

Primary regional access to the Project Site is provided by SR 110, US 101, and I-5. The major arterials providing regional and sub-regional access to the Project include Spring Street, College Street, Hill Street, and Main Street. The following is a brief description of the major roadways:

### **Freeways**

- SR 110 – SR 110 is a freeway that generally runs in the northeast-southwest direction and is located approximately 0.25 miles west of the Project Site. In the vicinity of the Study Area, SR 110 provides three travel lanes in each direction. Access to and from SR 110 is available via interchanges at Figueroa Street, Hill Street, Bishops Road, and Solano Avenue.
- US 101 – US 101 is a freeway that generally runs in the east-west direction and is located approximately 0.75 miles south of the Project Site. In the vicinity of the Study Area, US 101 provides three to four travel lanes in each direction. Access to and from US 101 is available via interchanges at Grand Avenue, Broadway, Spring Street, Los Angeles Street, Alameda Street, and Vignes Street.

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- I-5 – I-5 is a freeway that generally runs in the north-south direction and is located approximately 1.0 mile east of the Project Site. In the vicinity of the Study Area, I-5 provides four travel lanes in each direction. Access to and from I-5 is available via interchanges at Pasadena Avenue and Broadway.

## Roadways

- Alameda Street – Alameda Street is a designated Avenue I in the Mobility Plan and travels in the north-south direction and merges with Spring Street at College Street. It is located south of the Project Site and provides five travel lanes, two to three lanes in each direction, with left-turn lanes at intersections. On-street parking is not available within the Study Area.
- Los Angeles Street – Los Angeles Street is a designated Avenue I in the Mobility Plan and travels in the north-south direction. It is located south of the Project Site and provides four travel lanes, two lanes in each direction. Parking is generally unavailable within the Study Area.
- Spring Street – Spring Street is a Modified Avenue I in the Mobility Plan and travels in the north-south direction. It is located to the east of the Project Site and generally provides four travel lanes, two lanes in each direction, with left-turn lanes at intersections. On-street parking with afternoon peak hour restrictions is generally available within the Study Area.
- Main Street – Main Street is a designated Avenue II in the Mobility Plan and travels northbound south of Alpine Street and travels in the north-south direction north of Alpine Street. It is located east of the Project Site and provides three lanes in the northbound direction south of Alpine Street and four travel lanes, two lanes in each direction, north of Alpine Street, with left turns at intersections. On-street parking is generally available within the Study Area.
- Broadway – Broadway is a designated Avenue II south of Pasadena Avenue, a Modified Avenue II between Pasadena Avenue and Spring Street, and a designated Avenue I north of Spring Street in the Mobility Plan and travels in the northeastern-southwestern direction. It is located adjacent to the western boundary of the Project Site and provides four travel lanes, two lanes in each direction. Two-hour metered parking is available within the study area.
- Hill Street – Hill Street is a designated Avenue I in the Mobility Plan and travels in the north-south direction. It is located west of the Project Site and provides four travel lanes, two lanes in each direction, with left-turn lanes at intersections. Two-hour metered parking is generally available within the Study Area.
- Grand Avenue – Grand Avenue is a designated Avenue II between Temple Street and Cesar E. Chavez Avenue and a Collector Street north of Cesar E. Chavez Avenue in the Mobility Plan and travels in the north-south direction. It is located southwest of the Project Site and generally provides four travel lanes, with left- and/or right-turn lanes at

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intersections. On-street parking is generally available north of Cesar E. Chavez Avenue within the Study Area.

- Figueroa Street – Figueroa Street is a designated Boulevard II in the Mobility Plan and travels in the north-south direction. It is located southwest of the Project Site and provides four travel lanes, two lanes in each direction. Four-hour metered parking with peak hour restrictions is generally available within the Study Area.
- Pasadena Avenue – Pasadena Avenue is a designated Avenue II in the Mobility Plan and generally travels in the north-south direction. It is located northeast of the Project Site and provides four travel lanes, two lanes in each direction, with left-turn lanes at intersections. On-street parking is generally not available within the Study Area.
- Avenue 18 – Avenue 18 is a designated Modified Collector Street north of Broadway and a Modified Local Street south of Broadway in the Mobility Plan and generally travels in the north-south direction. It is located east of the Project Site and provides two travel lanes, one lane in each direction, with left-turn lanes at intersections. On-street parking is generally available within the Study Area.
- San Fernando Road – San Fernando Road is a designated Avenue II in the Mobility Plan and generally travels in the north-south direction and connects with Avenue 20 at Pasadena Avenue. It is located northeast of the Project Site and provides four travel lanes, two lanes in each direction, with left-turn lanes at intersections. On-street parking is generally available within the Study Area.
- Avenue 20 – Avenue 20 is a designated Modified Avenue II north of Broadway and a designated Modified Collector south of Broadway in the Mobility Plan and generally travels in the north-south direction and connects with San Fernando Road at Pasadena Avenue. It is located northeast of the Project Site and provides two travel lanes, one lane in each direction, with left-turn lanes at intersections. On-street parking is generally available within the Study Area.
- Avenue 26 – Avenue 26 is a designated Avenue II in the Mobility Plan and generally travels in the north-south direction. It is located northeast of the Project Site and provides four travel lanes, two lanes in each direction, with left-turn lanes at intersections. On-street parking is generally not available within the Study Area.
- Daly Street – Daly Street is a designated Avenue II in the Mobility Plan and generally travels in the north-south direction. It is located northeast of the Project Site and provides four travel lanes, two lanes in each direction, with left-turn lanes at intersections. On-street parking is generally available within the Study Area.
- Solano Avenue – Solano Avenue is a designated Local Street in the Mobility Plan and travels in the east-west direction. It is located north of the Project Site and provides two travel lanes, one lane in each direction, with left-turn lanes at intersections. On-street parking is generally available within the Study Area.
- Bishops Road – Bishops Road is a designated Collector Street in the Mobility Plan and generally travels in the southeast-northwest direction. It is located west of the Project

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Site and provides two travel lanes, one lane in each direction. On-street parking is generally available within the Study Area.

- Bernard Street – Bernard Street is a designated Local Street in the Mobility Plan and travels in the east-west direction. It is located southeast of the Project Site and provides two travel lanes, one lane in each direction. On-street parking is generally provided within the Study Area.
- College Street – College Street is a designated Avenue III in the Mobility Plan and travels in the east-west direction. It is located south of the Project Site and provides four travel lanes, two lanes in each direction. Four-hour metered parking with peak hour restrictions is generally available within the Study Area.
- Alpine Street – Alpine Street is a designated Collector Street west of Hill Street and a designated Avenue III east of Hill Street in the Mobility Plan. It travels in the east-west direction and merges with Vignes Street at Main Street. It is located south of the Project Site and provides four travel lanes, two lanes in each direction. Two-hour metered parking with peak hour restrictions is generally available within the Study Area.
- Vignes Street – Vignes Street is a designated Avenue I in the Mobility Plan and travels in the north-south direction and connects with Alpine Street at Main Street. It is located southeast of the Project Site and provides four travel lanes, two lanes in each direction, with left-turn lanes at intersections. On-street parking is generally not available within the Study Area.
- Sunset Boulevard – Sunset Boulevard is a designated Avenue I in the Mobility Plan and travels in the east-west direction and connects with Cesar E. Chavez Avenue at Figueroa Street. It is located southwest of the Project Site and provides four travel lanes, two lanes in each direction, with left-turn lanes at intersections. Two bus lanes, one in each direction, are also provided during peak hours. Six-hour metered parking is generally available within the Study Area.
- Cesar E. Chavez Avenue – Cesar E. Chavez Avenue is a designated Avenue I in the Mobility Plan and travels in the east-west direction. It connects with Sunset Boulevard at Figueroa Street. It is located south of the Project Site and provides four travel lanes, two lanes in each direction, with left-turn lanes at intersections. Two bus lanes, one in each direction, are also provided during peak hours. Four-hour metered parking with peak hour restrictions is generally available within the Study Area.
- Ramirez Street – Ramirez Street is a designated Collector Street in the Mobility Plan and travels in the east-west direction. It is located southeast of the Project Site and provides two travel lanes, one lane in each direction, with left-turn lanes at intersections. On-street parking is generally available within the Study Area.
- Aliso Street – Aliso Street is a designated Local Street in the Mobility Plan and travels in the east-west direction and connects with Commercial Street at Alameda Street. It is located southeast of the Project Site and provides three travel lanes, with left-turn lanes at intersections. On-street parking is not available within the Study Area.

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- Commercial Street – Commercial Street is a designated Collector Street in the Mobility Plan and travels in the east-west direction. It is located southeast of the Project Site and provides four travel lanes, two lanes in each direction, with left-turn lanes at intersections. Two-hour metered parking is available between Vignes Street and Center Street within the Study Area.

## **EXISTING TRANSIT SYSTEM**

The Project Study Area is served by bus lines operated by the Metro, LADOT Downtown Area Shuttle (DASH) and Commuter Express (CE), Foothill Transit, Santa Clarita Transit, Antelope Valley Transit Authority (AVTA), Torrance Transit, Orange County Transportation Authority (OCTA), and Commerce Municipal Bus Lines. Figure 3 illustrates the existing transit service in and around the Study Area.

In addition to the bus lines that provide service within the Project Site vicinity, various light rail and subway transit lines operate in and around the Study Area. The Metro Gold Line light rail operates between Azusa and East Los Angeles traveling to downtown Los Angeles and connects with the Red Line and Purple Line subways at Union Station. The Metro Purple Line runs in the east-west direction between Union Station and Koreatown. The Metro Red Line runs in the northwest-southeast direction between Union Station and North Hollywood. In the Project vicinity, the Metro Gold Line has a stop at Chinatown Station, approximately less than 1000 feet from the Project Site.

Table 3 summarizes the transit lines operating in and around the Study Area, including the type of service (peak vs. off-peak, express vs. local), frequency of service, service area, and hours of operation. The average frequency of transit service during the peak hour was derived from the number of peak period stops made at the stop nearest the Project Site.

Transit ridership statistics were provided from Metro and from LADOT Dash and CE. This data was used, along with the frequency of service for each line and maximum seated and standing capacity of each bus, to determine the residual transit capacity of routes serving the Project Site. Tables 4A and 4B summarize the total residual capacity of the transit lines within 0.25 miles walking distance of the Project Site during the morning and afternoon peak hours, respectively. As shown, the transit lines serving the Project Site currently have available capacity for 8,637 additional riders during the morning peak hour and 8,431 additional riders

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during the afternoon peak hour. No data was readily available for the Santa Clarita Transit bus system, so no capacity was assumed for those lines. The transit lines with bus stops or stations located more than 0.25 miles from the Project Site were also not included.

## **BICYCLE AND PEDESTRIAN NETWORK**

### **Existing Bicycle System**

The Mobility Plan includes the specific goals and policies of the *2010 Bicycle Plan, A Component of the City of Los Angeles Transportation Element* (Los Angeles Department of City Planning, adopted March 1, 2011) (2010 Bicycle Plan). The Mobility Plan establishes the overall framework for those components of the 2010 Bicycle Plan and builds upon those goals of improving bicycling for all levels of experience. The existing bicycle system consists of a limited network of bicycle lanes (Class II) and bicycle routes (Class III). Bicycle lanes are a component of street design with dedicated striping, separating vehicular traffic from bicycle traffic. These facilities offer a safer environment for both cyclists and motorists. Bicycle routes and bicycle-friendly streets are those where motorists and cyclists share the roadway and there is no dedicated striping of a bicycle lane. Bicycle routes and bicycle-friendly streets are preferably located 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, makes motorists aware of bicycles potentially in the travel lane, and shows bicyclists the correct direction of travel.

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

#### **Bicycle Lanes (Class II)**

- Stadium Way west of Chavez Ravine Place
- Figueroa Street south of Cesar E. Chavez Avenue
- Spring Street south of Cesar E. Chavez Avenue
- Main Street south of Cesar E. Chavez Avenue
- Los Angeles Street south of Cesar E. Chavez Avenue

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The Mobility Plan bicycle facilities consist of a Low-Stress Bikeway System and a Bicycle Lane Network. The Low-Stress Bikeway System is comprised of the Bicycle Enhanced Network, the Neighborhood Enhanced Network, and Bike Paths. The Bicycle Enhanced Network includes protected bicycle lanes and neighborhood streets. Bicycle lanes provide infrastructure including cycle tracks, bicycle signals, and demarcated areas to facilitate turns at intersections. Neighborhood streets would typically provide mini-roundabouts, cross-street stop signs, crossing islands at major intersection crossings, improved street lighting, bicycle boxed, and bicycle-only left-turn pockets. The Neighborhood Enhanced Network and Bicycle Paths are relatively unchanged from the 2010 Bicycle Plan.

### **Existing Pedestrian Facilities**

The walkability of existing facilities is based on the availability of pedestrian routes necessary to accomplish daily tasks without the use of an automobile; these attributes are quantified by WalkScore.com and assigned a score out of 100 points. With the various commercial businesses and cultural facilities adjacent to residential neighborhoods, the walkability of the area is approximately 92 points<sup>1</sup>; this compares to the citywide score of 67 points.

The sidewalks that serve as routes to the Project Site provide proper connectivity and adequate widths for a comfortable and safe pedestrian environment. The sidewalks provide connectivity to pedestrian crossings at study intersections.

The following signalized intersections provide pedestrian access in the vicinity of the Project Site (all intersections have marked pedestrian crossings on all approaches):

6. Broadway & College Street
7. Spring Street & College Street
8. Broadway & Bernard Street

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<sup>1</sup> Walk Score ([www.walkscore.com](http://www.walkscore.com)) rates the Project Site with a score of 92 of 100 possible points (scores accessed on May 1, 2018 for 942 N. Broadway). 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.

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Additionally, a signalized mid-block crossing is provided directly adjacent to the Project Site. Each of the listed signalized intersections provides pedestrian phasing, crosswalk striping, and Americans with Disabilities Act wheelchair ramps.

### **Vision Zero**

As described in *Vision Zero: Eliminating Traffic Deaths in Los Angeles by 2025* (City of Los Angeles, August 2015), Vision Zero is a traffic safety policy that promotes strategies to eliminate collisions that result in severe injury or death. Vision Zero has identified the High Injury Network, a network of streets based on the collision data from the last five years, where strategic investments will have the biggest impact in reducing death and severe injury. Based on LADOT policies, identification of these networks help to prioritize improvement areas should traffic impacts be identified. The Project Site is located adjacent to Broadway, which is identified in the High Injury Network. Additionally, the following streets located in close proximity to the Project Site have also been identified in the High Injury Network:

- College Street between Yale Street and Spring Street
- Alpine Street between Broadway and Spring Street/Alameda Street
- Vignes Street between Bauchet Street and Cesar E. Chavez Avenue
- Cesar E. Chavez Avenue between Vignes Street and Lyon Street
- Broadway north / east of Spring Street; and between College Street and Cesar E. Chavez Avenue
- Hill Street between College Street and Cesar E. Chavez Avenue
- Alameda Street south of Alpine Street

### **EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE**

This section presents the existing peak hour turning movement traffic volumes for the intersections analyzed in the study, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each intersection indicating V/C ratios or delay and LOS.



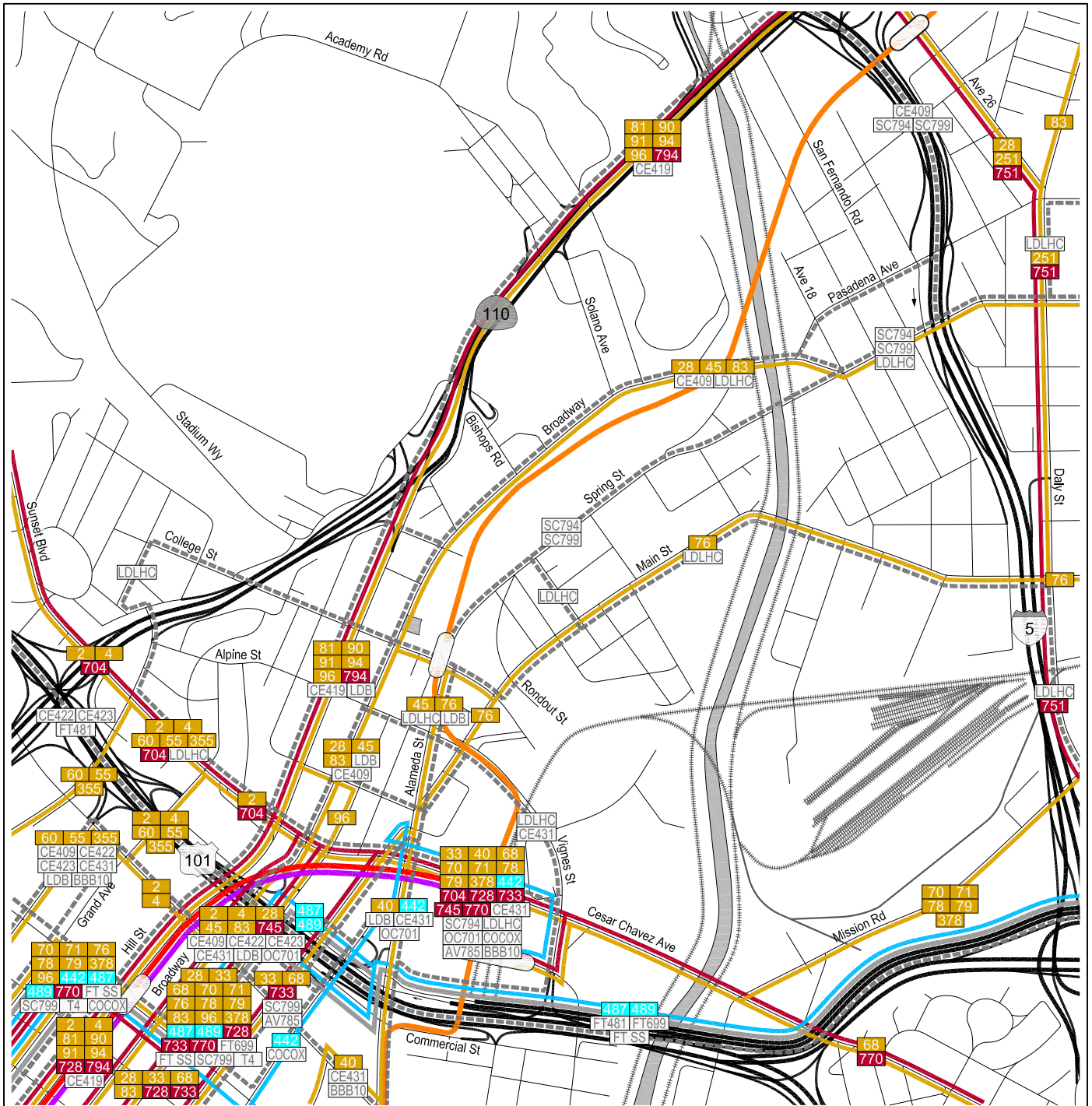
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### **Existing Traffic Volumes**

Intersection turning movement counts at the study intersections were collected during the weekday morning (7:00 AM to 10:00 AM) and afternoon (3:00 PM to 6:00 PM) peak periods in December 2017 and January 2018. Local schools were in session when all traffic counts were conducted and the weather conditions were typical. The existing intersection peak hour traffic volumes are illustrated in Figure 4. The traffic count worksheets are provided in Appendix C.

### **Existing Intersection Levels of Service**

Table 5 summarizes the weekday morning and afternoon peak hour LOS results for each of the study intersections under Existing Conditions. Table 5 indicates that all 11 study intersections currently operate at LOS D or better during both the morning and afternoon peak hours. The LOS calculation worksheets are provided in Appendix D.

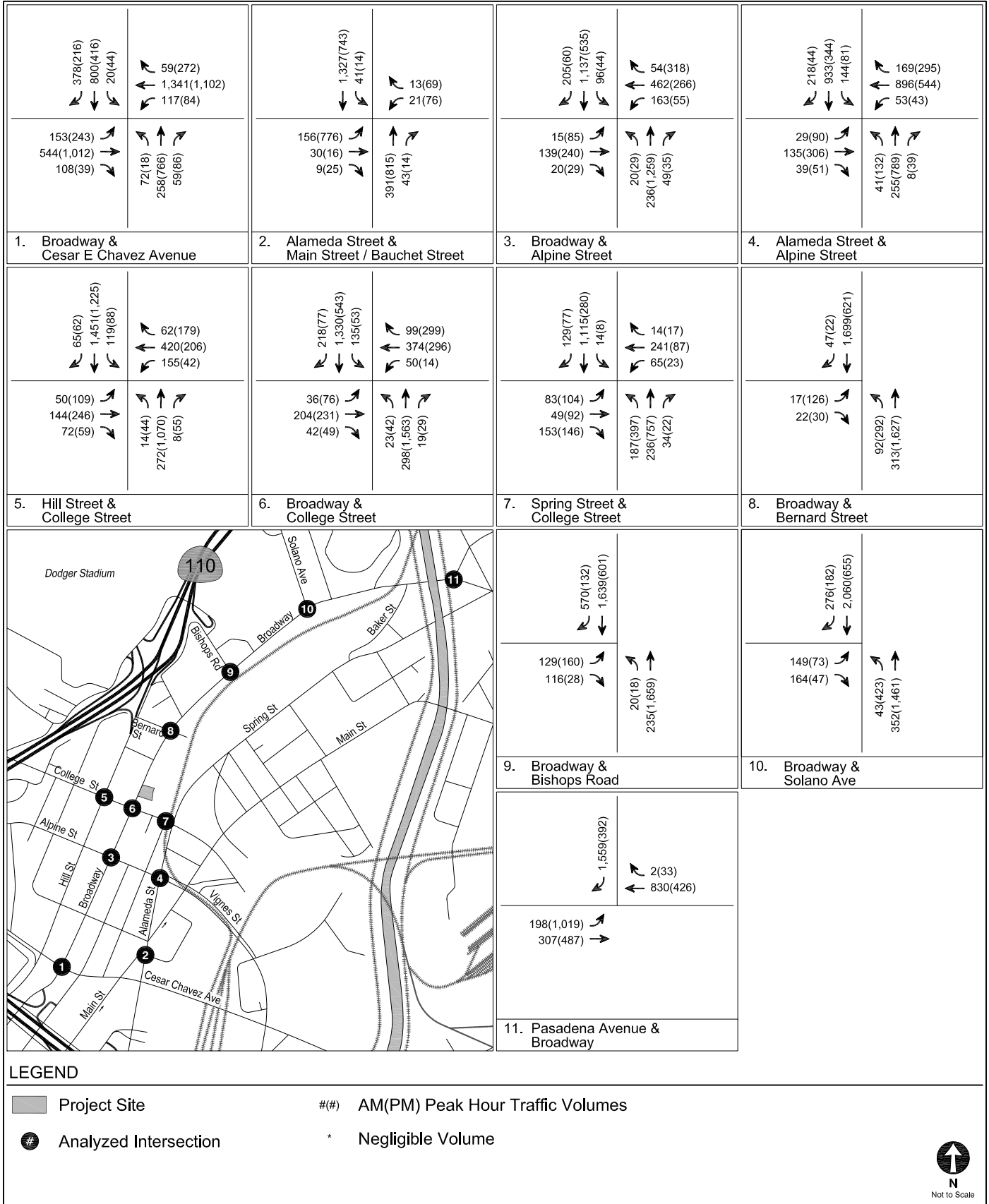


**LEGEND**

- |                                 |                             |   |                       |
|---------------------------------|-----------------------------|---|-----------------------|
| Project Site                    | Metro Local & Limited Lines | FT - Foothill Transit                       | <br>N<br>Not to Scale |
| Metro Rail Station              | Metro Express Lines         | SC - City of Santa Clarita Transit          |                       |
| Metro Red Line                  | Metro Rapid Lines           | AV - Antelope Valley Transit Authority      |                       |
| Metro Purple Line               | Municipal Bus Lines         | T - Torrance Transit                        |                       |
| Metro Gold Rail Line            | CE - LADOT Commuter Express | OC - Orange County Transportation Authority |                       |
| Metro Transitway Harbor Gateway | LD - LADOT DASH             | CO - Commerce Municipal Bus Lines           |                       |
|                                 |                             | BBB - Santa Monica Big Blue Bus             |                       |

**EXISTING TRANSIT SERVICE**

**FIGURE 3**



EXISTING CONDITIONS (YEAR 2018)  
PEAK HOUR TRAFFIC VOLUMES

FIGURE  
4

**TABLE 2  
STUDY INTERSECTION LIST**

<b>No</b>	<b>North/South Street</b>	<b>East/West Street</b>	<b>Jurisdiction</b>
1.	Broadway	Cesar Chavez Avenue	City of Los Angeles
2.	Alameda Street	Main Street/Bauchet Street	City of Los Angeles
3.	Broadway	Alpine Street	City of Los Angeles
4.	Alameda Street	Alpine Street	City of Los Angeles
5.	Hill Street	College Street	City of Los Angeles
6.	Broadway	College Street	City of Los Angeles
7.	Spring Street	College Street	City of Los Angeles
8.	Broadway	Bernard Street	City of Los Angeles
9.	Broadway	Bishops Road	City of Los Angeles
10.	Broadway	Solano Avenue	City of Los Angeles
11.	Pasadena Avenue	Broadway	City of Los Angeles

**TABLE 3  
EXISTING TRANSIT SERVICE**

Provider, Route, and Service Area			Service Type	Hours of Operation	Average Headway (minutes)			
					AM Peak Period		PM Peak Period	
				NB/EB	SB/WB	NB/EB	SB/WB	
<b>Metro Bus</b>					NB/EB	SB/WB	NB/EB	SB/WB
2	Downtown Los Angeles - Pacific Palisades via Sunset Bl		Local	24 - Hour	24	11	15	20
4	Downtown Los Angeles - West Los Angeles - Santa Monica via Santa Monica Bl		Local	24 - Hour	13	12	10	13
28	Century City - Downtown Los Angeles - Eagle Rock via Olympic Bl & Eagle Rock Bl		Local	24 - Hour	14	14	16	16
33 [a]	Downtown Los Angeles - Santa Monica via Venice Bl		Local	24 - Hour [a]	N/A	N/A	N/A	N/A
40	Downtown Los Angeles - South Bay Galleria via King-Hawthorne		Local	4:30 AM - 11:00 PM	13	14	15	13
45	Lincoln Heights - Downtown Los Angeles - Rosewood via Broadway		Local	4:30 AM - 2:30 AM	8	13	11	9
55	Downtown Los Angeles - Willowbrook Station via Compton Ave		Local	5:30 AM - 8:30 PM	16	17	17	18
60	Downtown Los Angeles - Cal State LA via Wabash Ave & City Terrace Dr		Local	24 - Hour	9	10	8	7
68	Downtown Los Angeles - Montebello via Cesar E Chavez Ave		Local	4:30 AM - 12:30 AM	16	16	16	17
70	Downtown Los Angeles - El Monte via Garvey Ave		Local	24 - Hour	13	12	13	13
71	Downtown Los Angeles - Cal State LA via Wabash Ave & City Terrace Dr		Local	6:00 AM - 9:00 PM	18	22	40	34
76	Downtown Los Angeles - El Monte via Valley Bl		Local	24 - Hour	14	14	14	14
78-79-378	Downtown Los Angeles - Arcadia via Las Tunas Dr/Huntington Dr		Local	5:00 AM - 1:30 AM	12	8	8	11
81	Eagle Rock - Downtown Los Angeles - Harbor Freeway Station via Figueroa St		Local	5:00 AM - 1:30 AM	10	10	11	11
83	Downtown Los Angeles - Eagle Rock via York Bl & Pasadena Ave		Local	24 - Hour	30	30	22	30
90 - 91	Downtown Los Angeles - Sunland - Olive View Medical Center via Glendale Ave & Foothill Bl		Local	5:00 AM - 9:00 PM	15	17	16	17
94	Downtown Los Angeles - Sun Valley via San Fernando Rd		Local	4:30 AM - 2:30 AM	22	20	30	24
96	Downtown Los Angeles - Burbank Station via Riverside Dr & LA Zoo		Local	4:00 AM - 9:00 PM	34	30	30	30
251	Lynwood - Cypress Park via Soto Street & Daly Street		Local	24 - Hour	18	20	22	16
355	Downtown Los Angeles - Willowbrook Station via Compton Ave		Local	7:00 AM - 12:00 AM	18	N/A	N/A	26
442	Downtown Los Angeles - Hawthorne/Lennox Station via Manchester Bl		Express	6:00 AM - 12:00 AM	38	N/A	N/A	60
487 - 489	Downtown Los Angeles - Sierra Madre Villa Station - El Monte Station		Express	5:30 AM - 9:30 PM	40	13	15	34
704	Downtown Los Angeles - Santa Monica via Santa Monica Bl		Rapid	5:30 AM - 9:30 PM	15	11	17	16
728	Downtown Los Angeles - Century City via West Olympic Bl		Rapid	5:00 AM - 9:00 PM	14	13	13	15
733	Downtown Los Angeles - Santa Monica via Venice Bl		Rapid	5:00 AM - 1:00 AM	22	14	14	22
745	Downtown Los Angeles - Harbor Freeway Station via Broadway		Rapid	5:00 AM - 9:00 PM	9	11	11	10
751	Huntington Park - Cypress Park via Soto Street & Daly Street		Rapid	4:30 AM - 8:30 PM	15	14	15	16
770	Downtown Los Angeles - El Monte Station via Garvey Ave & Cesar E Chavez Ave		Rapid	5:00 AM - 9:00 PM	15	13	13	15
794	Downtown Los Angeles - Sylmar Station via San Fernando Rd		Rapid	4:30 AM - 9:30 PM	24	24	24	24
<b>Metro Rail</b>					NB/EB	SB/WB	NB/EB	SB/WB
Gold	East Los Angeles - Downtown Los Angeles - Pasadena		Rail	3:30 AM - 1:00 AM	7	7	7	7
Red	North Hollywood - Downtown Los Angeles		Rail	4:30 AM - 1:30 AM	10	10	10	10
Purple	Mid-Wilshire - Downtown Los Angeles		Rail	4:30 AM - 1:30 AM	10	10	10	10
<b>Metro Transitway</b>					NB/EB	SB/WB	NB/EB	SB/WB
Silver	Harbor Gateway - El Monte		Busway	3:30 AM - 1:30 AM	5	5	5	6
<b>LADOT Commuter Express</b>					NB/EB	SB/WB	NB/EB	SB/WB
409	East Glendale - Downtown Los Angeles		Local	5:30 AM - 7:30 PM	N/A	17	17	N/A
419	Chatsworth - Downtown Los Angeles		Local	5:30 AM - 8:30 PM	19	N/A	N/A	23
422	Thousand Oaks/Agoura Hills - Downtown Los Angeles		Local	5:00 AM - 8:00 PM	N/A	19	12	N/A
423	Thousand Oaks/Agoura Hills - Downtown Los Angeles		Local	5:00 AM - 9:00 PM	17	N/A	N/A	18
431	Westwood - Downtown Los Angeles		Local	6:00 AM - 7:00 PM	30	N/A	N/A	30
<b>LADOT DASH</b>					CW/CCW	CW/CCW	CW/CCW	CW/CCW
B	Downtown Los Angeles - Chinatown - Financial District		Local	6:00 AM - 6:30 PM	8	8	9	9
LHC	Lincoln Heights/Chinatown		Local	6:30 AM - 7:30 PM	30	30	30	30
<b>Foothill Transit</b>					NB/EB	SB/WB	NB/EB	SB/WB
481	El Monte - Downtown Los Angeles		Express	5:30 AM - 6:30 PM	N/A	16	18	N/A
699	Montclair - Fairplex Park & Ride - Downtown Los Angeles		Express	4:00 AM - 8:00 PM	N/A	10	6	N/A
SS	Montclair - Downtown Los Angeles		Rapid	24 - Hour	16	10	9	15
<b>Santa Clarita Transit</b>					NB/EB	SB/WB	NB/EB	SB/WB
794	Downtown Los Angeles - Santa Clarita		Express	7:00 AM - 6:30 PM	38	N/A	N/A	40
799	Santa Clarita - Downtown Los Angeles		Express	5:00 AM - 8:00 PM	N/A	17	22	N/A
<b>Antelope Valley Transit Authority</b>					NB/EB	SB/WB	NB/EB	SB/WB
785	Lancaster/Palmdale - Downtown Los Angeles		Express	4:00 AM - 8:00 PM	N/A	23	20	N/A
<b>Santa Monica Big Blue Bus</b>					NB/EB	SB/WB	NB/EB	SB/WB
10	Downtown Santa Monica - Downtown Los Angeles		Express	4:00 AM - 8:00 PM	20	16	20	20
<b>Torrance Transit</b>					NB/EB	SB/WB	NB/EB	SB/WB
4	Torrance - Downtown Los Angeles		Express	5:00 AM - 8:00 PM	45	N/A	N/A	36
<b>OCTA</b>					NB/EB	SB/WB	NB/EB	SB/WB
701	Huntington Beach - Downtown Los Angeles		Express	5:30 AM - 7:00 PM	30	N/A	N/A	30
<b>Commerce Municipal Bus</b>					NB/EB	SB/WB	NB/EB	SB/WB
COCOX	Citadel Outlets Express		Express	7:00 AM - 9:00 PM	60	N/A	35	N/A

**Notes**

- Metro: Los Angeles County Metropolitan Transportation Authority
- LADOT: Los Angeles Department of Transportation
- OCTA: Orange County Transit Authority
- AM Peak from 6-10 AM
- PM Peak from 3-7 PM
- [a] Line 33 only provides owl service during late night peak period in the westbound direction in the Study Area.

**TABLE 4A  
TRANSIT SYSTEM CAPACITY IN STUDY AREA - MORNING PEAK HOUR**

Provider, Route, and Service Area		Capacity per Trip [a]	Peak Hour Ridership [b]				Average Remaining Capacity per Trip		Remaining Peak Hour Capacity	
			Peak Load		Average Load		NB/EB	SB/WB	NB/EB	SB/WB
			NB/EB	SB/WB	NB/EB	SB/WB				
<b>Metro Bus</b>										
28	Downtown Los Angeles to Century City via W Olympic Boulevard	50	15	23	10	15	40	35	140	123
45	Lincoln Heights - Downtown Los Angeles - Rosewood via Broadway	50	26	29	14	18	36	32	72	104
76	Downtown Los Angeles - El Monte via Valley Bl	50	31	35	19	25	31	25	109	88
81	Eagle Rock - Downtown Los Angeles - Harbor Freeway Station via Figueroa St	50	33	33	15	22	35	28	88	70
83	Downtown Los Angeles - Eagle Rock via York Bl & Pasadena Ave	50	10	26	8	20	42	30	315	225
90/91	Downtown Los Angeles - Sunland - Olive View Medical Center via Glendale Ave & Foothill Bl	50	31	37	24	27	26	23	98	98
94	Downtown Los Angeles - Sun Valley via San Fernando Rd	50	24	25	19	18	31	32	171	160
96	Downtown Los Angeles - Burbank Station via Riverside Dr & LA Zoo	50	13	22	11	16	39	34	332	255
794	Downtown Los Angeles - Hawthorne/Lennox Station via Manchester Boulevard	75	27	30	23	19	52	56	312	336
<b>LADOT DASH</b>										
B	Downtown Los Angeles - Chinatown - Financial District	30	10	2	2	1	28	29	56	58
LHC	Lincoln Heights/Chinatown	30	10	14	4	7	26	23	195	173
<b>LADOT Commuter Express</b>										
409	East Glendale - Downtown Los Angeles	49	N/A	47	N/A	37	N/A	12	N/A	51
419	Chatsworth - Northridge - Granada Hills - Mission Hills - Downtown Los Angeles	49	46	N/A	29	N/A	20	N/A	95	N/A
<b>Santa Clarita Transit</b>										
794	Downtown Los Angeles - Santa Clarita	50	<i>Data not currently available</i>							
799	Santa Clarita - Downtown Los Angeles	50	<i>Data not currently available</i>							
<b>Metro Rail</b>										
Gold	East Los Angeles - Downtown Los Angeles - Pasadena - Azusa	400	N/A	N/A	70	152	330	248	2,805	2,108
<b>Total Transit Residual Capacity in Peak Hour</b>									<b>8637</b>	

Notes:

- [a] Number of runs in both directions combined during peak hour.
- [b] Ridership information based on data from Metro for October 2017.
- [c] Capacity assumptions based on discussions with agencies:
  - Metro Regular 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
  - Santa Clarita Transit Bus - 50 seated and standing.
  - Metro Gold Rail - 76 seated / 133 standing (175% of seated capacity) per car x 3 cars per train = 400 patrons.

**TABLE 4B  
TRANSIT SYSTEM CAPACITY IN STUDY AREA - AFTERNOON PEAK HOUR**

Provider, Route, and Service Area		Capacity per Trip [a]	Peak Hour Ridership [b]				Average Remaining Capacity per Trip		Remaining Peak Hour Capacity	
			Peak Load		Average Load		NB/EB	SB/WB	NB/EB	SB/WB
			NB/EB	SB/WB	NB/EB	SB/WB				
<b>Metro Bus</b>										
28	Downtown Los Angeles to Century City via W Olympic Boulevard	50	26	23	19	12	31	38	124	152
45	Lincoln Heights - Downtown Los Angeles - Rosewood via Broadway	50	27	19	19	13	31	37	85	83
76	Downtown Los Angeles - El Monte via Valley Bl	50	37	23	26	18	24	32	84	112
81	Eagle Rock - Downtown Los Angeles - Harbor Freeway Station via Figueroa St	50	31	33	23	19	27	31	149	233
83	Downtown Los Angeles - Eagle Rock via York Bl & Pasadena Ave	50	30	13	22	10	28	40	112	170
90/91	Downtown Los Angeles - Sunland - Olive View Medical Center via Glendale Ave & Foothill Bl	50	41	28	28	23	22	27	165	203
94	Downtown Los Angeles - Sun Valley via San Fernando Rd	50	28	24	20	20	30	30	225	450
96	Downtown Los Angeles - Burbank Station via Riverside Dr & LA Zoo	50	24	16	18	12	32	38	120	323
794	Downtown Los Angeles - Hawthorne/Lennox Station via Manchester Boulevard	75	35	25	25	20	50	55	125	138
<b>LADOT DASH</b>										
B	Downtown Los Angeles - Chinatown - Financial District	30	4	3	7	4	23	26	52	59
LHC	Lincoln Heights/Chinatown	30	12	13	5	5	25	25	188	188
<b>LADOT Commuter Express</b>										
409	East Glendale - Downtown Los Angeles	49	44	N/A	35	N/A	14	N/A	60	N/A
419	Chatsworth - Northridge - Granada Hills - Mission Hills - Downtown Los Angeles	49	N/A	46	N/A	31	N/A	18	N/A	104
<b>Santa Clarita Transit</b>										
794	Downtown Los Angeles - Santa Clarita	50	<i>Data not currently available</i>							
799	Santa Clarita - Downtown Los Angeles	50	<i>Data not currently available</i>							
<b>Metro Rail</b>										
Gold	East Los Angeles - Downtown Los Angeles - Pasadena - Azusa	400	N/A	N/A	157	87	243	313	2,066	2,661
<b>Total Transit Residual Capacity in Peak Hour</b>									<b>8431</b>	

Notes:

- [a] Number of runs in both directions combined during peak hour.
- [b] Ridership information based on data from Metro for October 2017.
- [c] Capacity assumptions based on discussions with agencies:
  - Metro Regular 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
  - Santa Clarita Transit Bus - 50 seated and standing.
  - Metro Gold Rail - 76 seated / 133 standing (175% of seated capacity) per car x 3 cars per train = 400 patrons.

**TABLE 5  
EXISTING WITHOUT PROJECT CONDITIONS (YEAR 2018)  
INTERSECTION LEVELS OF SERVICE AND IMPACTS**

No	Intersection	Peak Hour	Existing Conditions	
			V/C	LOS
1.	Broadway & Cesar Chavez Avenue	AM	0.792	C
		PM	0.740	C
2.	Alameda Street & Main Street/Bauchet Street	AM	0.271	A
		PM	0.447	A
3.	Broadway & Alpine Street	AM	0.634	B
		PM	0.669	B
4.	Alameda Street & Alpine Street	AM	0.591	A
		PM	0.488	A
5.	Hill Street & College Street	AM	0.661	B
		PM	0.588	A
6.	Broadway & College Street	AM	0.592	A
		PM	0.763	C
7.	Spring Street & College Street	AM	0.560	A
		PM	0.408	A
8.	Broadway & Bernard Street	AM	0.593	A
		PM	0.565	A
9.	Broadway & Bishops Road	AM	0.813	D
		PM	0.579	A
10.	Broadway & Solano Avenue	AM	0.824	D
		PM	0.481	A
11.	Pasadena Avenue & Broadway	AM	0.852	D
		PM	0.442	A



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## **Chapter 3**

### ***Future without Project Conditions***

Estimates of future traffic conditions both with and without the Project, representing cumulative conditions, were developed to evaluate the potential impacts of the Project on the local street system. This discussion details the assumptions used to develop the Future without Project Conditions in Year 2021, which corresponds to anticipated occupancy of the Project.

#### **CEQA GUIDELINES REGARDING FUTURE TRAFFIC CONDITIONS**

The forecast of Future without Project Conditions was prepared in accordance with procedures outlined in Section 15130 of *Guidelines for Implementation of the California Environmental Quality Act, Chapter 3, Title 14, California Code of Regulations* (California Natural Resources Agency, amended July 27, 2007) (*Guidelines*). Specifically, *Guidelines* provides two options for developing the cumulative traffic volume forecast:

“(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or

“(B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.”

As described in detail below, this analysis includes traffic growth both from future projects (option “A” above, the “Related Projects”) and from regional growth projections (option “B” above, or ambient growth). Given that the ambient growth factor discussed below likely includes some traffic

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growth resulting from the Related Projects, the traffic analysis provides a highly conservative estimate of Future without Project traffic volumes.

## **AMBIENT TRAFFIC GROWTH**

Existing traffic is expected to increase as a result of regional growth and development outside the Study Area. Per LADOT instructions through the MOU process, the CMP general growth factors, which are based on regional modeling, were used for projecting future traffic growth. The Project Site is located within Regional Statistical Area #24 (Glendale) according to Exhibit D-1 of the CMP, an area which is estimated to experience a total regional growth in traffic of 2.7% between the years of 2015 and 2025. This equates to an ambient growth factor of approximately 0.27% per year. The total adjustments applied over the three-year period corresponding to the Project buildout year (Year 2021) is 0.81%. This growth factor accounts for increases in traffic due to potential projects plus projects not yet proposed or projects outside the Study Area.

## **RELATED PROJECTS**

In accordance with the CEQA requirements in *Guidelines*, this study also considers the effects of the Project in relation to the Related Projects. The list of Related Projects is based on information provided by the Department of City Planning and LADOT, as well as recent traffic studies prepared for projects within a 1.5 mile radius of the Project Site to capture projects that may contribute directly to traffic approaches at study intersections. Projects located outside of this radius would be captured in the ambient growth. The Related Projects are detailed in Table 6 and shown in Figure 5.

Though the buildout years of many of these Related Projects are uncertain and may be well beyond the buildout year of the Project, and notwithstanding that some may never be approved or developed, they were all considered as part of this study and conservatively assumed to be completed by the Project buildout Year 2021. Therefore, the traffic growth due to the development of Related Projects considered in this analysis is highly conservative and, by itself, substantially overestimates the actual traffic volume growth in the downtown Los Angeles area that would likely

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occur in the next four years prior to Project buildout. With the addition of the 0.27% per year ambient growth factor previously discussed, the Future without Project cumulative condition is even more conservative.

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

### **Trip Generation**

Trip generation estimates for the Related Projects were provided by LADOT or were calculated using a combination of previous study findings and the trip generation rates contained in *Trip Generation, 10<sup>th</sup> Edition* (Institute of Transportation Engineers, 2017). The Related Projects trip generation estimates, shown in Table 6, are conservative in that they do not in every case account for either the existing uses to be removed or the likely use of other travel modes (transit, walk, etc.). Further, they do not account for the internal capture trips within a multi-use development, nor the interaction of trips between multiple Related Projects within the Study Area, in which one Related Project serves as the origin for a trip destined for another Related Project.

### **Trip Distribution**

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

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## **Trip Assignment**

The trip generation estimates for the Related Projects were assigned to the local street system using the trip distribution patterns described above. Figure 6 shows the peak hour traffic volumes associated with these Related Projects at the study intersections. These volumes were then added to the existing traffic volumes after adjustment for ambient growth through the projected completion year of 2021. As discussed above, this is a conservative approach as many of the Related Projects may be reflected in the ambient growth rate. These volumes represent the Future without Project Conditions (i.e., existing traffic volumes added to ambient traffic growth and Related Project traffic growth) for Year 2021 and is shown in Figure 7 for the 11 study intersections.

## **FUTURE IMPROVEMENTS**

The roadway network for the Future without Project Conditions within the Study Area could also be affected by regional improvement plans, local specific plans, and programmed improvements (i.e., mitigations for Related Projects). The potential improvements that were identified are discussed below.

## **Metro Regional Connector**

The Metro Regional Connector project is a 1.9-mile underground light rail system that will extend from Little Tokyo to the 7<sup>th</sup> Street/Metro Center Station, allowing passengers to make direct transfers between the Gold, Blue, and Expo 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. Three new transit stations will be developed with the operation of the Metro Regional Connector. The Metro Regional Connector is anticipated to be complete and in operation by 2021. The Metro Regional Connector will be primarily underground, and will not affect the street configurations of the corridors in the Study Area.

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## **Future Bicycle System**

As proposed in the Mobility Plan, the bicycle system in the Study Area will be expanded to create a more integrated network. The three components of the bicycle network include the Backbone, the Neighborhood Network, and the Green Network. Class II bicycle lanes will be added to high volume corridors to and from the Backbone of the network, while in-road bikeways in lower volume and collector streets will form the Neighborhood Network through the implementation of Class II bicycle routes and bicycle friendly streets. The Green Network consists of dedicated bike paths that connect the City's open spaces.

Within the Study Area, dedicated bicycle lanes are proposed on Broadway north of Cesar E. Chavez Avenue, Spring Street north of Ord Street, Main Street north of US 101, Alameda Street between Cesar E. Chavez Avenue and Bruno Street, and Cesar E. Chavez Avenue east of SR 110. Bicycle routes/bicycle friendly streets are also proposed on Sotello Street, Ann Street, College Street, Alpine Street, Ord Street, Spring Street, and New High Street.

As detailed in the Mobility Plan, within the Study Area, the Bicycle Enhanced Network designates Broadway north of Cesar E. Chavez Avenue, Spring Street north of Ord Street, Main Street north of US 101, Vignes Street east of Broadway, and Cesar E. Chavez Avenue east of SR 110 for inclusion in the priority planned bicycle lanes. Bicycle routes/bicycle friendly streets are also proposed on Alameda Street, Avenue 18, Avenue 19, Sotello Street, Ann Street, College Street, Alpine Street, Ord Street, Spring Street, Los Angeles Street, and New High Street.

The primary bicycle lanes that would be closest to the Project frontages are on Spring Street north of College Street and Broadway north of College Street. However, these proposed bicycle facilities are not anticipated to be completed by the opening of the Project in Years 2021 and, therefore, were not included in the future analyses.

## **Future Pedestrian Network**

The Neighborhood Network established in the Mobility Plan, which included a network of local streets that were adequate for bicycling, could also serve local pedestrian activity. The

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Neighborhood Enhanced Network 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 Neighborhood Enhanced Network has designated the following streets within the Study Area as part of the Neighborhood Network:

- Ord Street between New High Street and North Alameda Street
- New High Street between Cesar E. Chavez Avenue and Ord Street
- North Spring Street between Cesar E. Chavez Avenue and Ord Street
- Alpine Street between North Broadway and North Main Street
- College Street between North Broadway and North Main Street
- West Ann Street between North Spring Street and North Main Street
- Sotello Street between North Spring Street and North Main Street
- Avenue 18 north of North Broadway
- Avenue 19 between North Broadway and North Main Street

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 pedestrian-oriented design features. The Pedestrian Enhanced District of the Mobility Plan has designated the following arterial streets within the Study Area as Pedestrian Segments, where pedestrian improvements could be prioritized to provide better connectivity to and from major destinations within communities:

- Pasadena Avenue
- North Broadway
- North Hill Street
- North Spring Street
- New High Street
- North Main Street
- Alameda Street
- College Street
- Cesar E. Chavez Avenue / Sunset Boulevard
- North Figueroa Street
- Temple Street

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- Los Angeles Street
  - Grand Avenue

## **FUTURE WITHOUT PROJECT INTERSECTION LEVELS OF SERVICE**

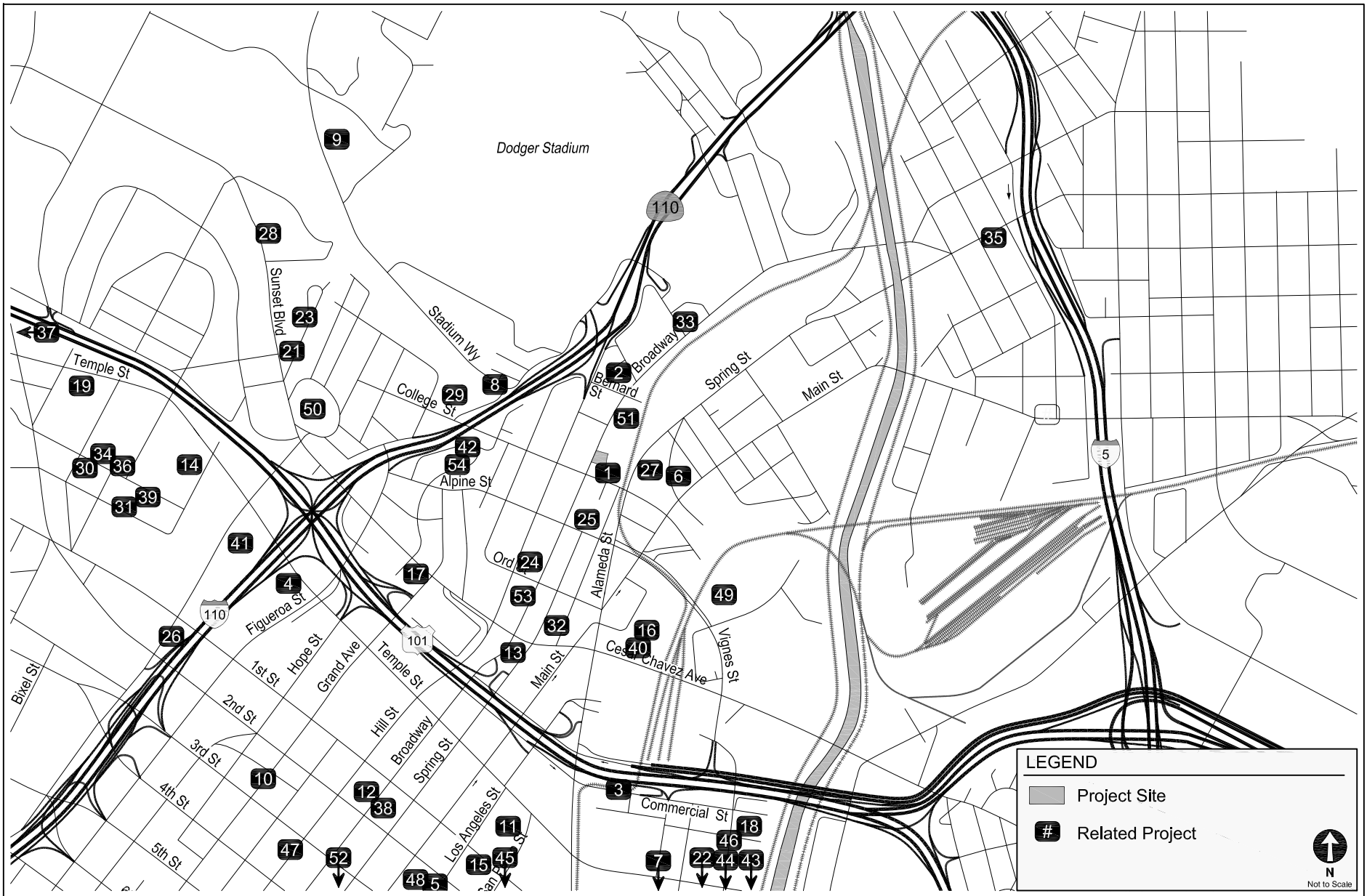
### **Future without Project Conditions (Year 2021)**

Table 7 summarizes the weekday morning and afternoon peak hour LOS results for each of the study intersections under Future without Project Conditions for 2021. As shown, eight of the 11 study intersections are anticipated to operate at LOS D or better during both the weekday morning and afternoon peak hours.

The following three intersections would operate at LOS E during one of the analyzed peak hours:

1. Broadway & Cesar Chavez Avenue
6. Broadway & College Street
10. Broadway & Solano Avenue

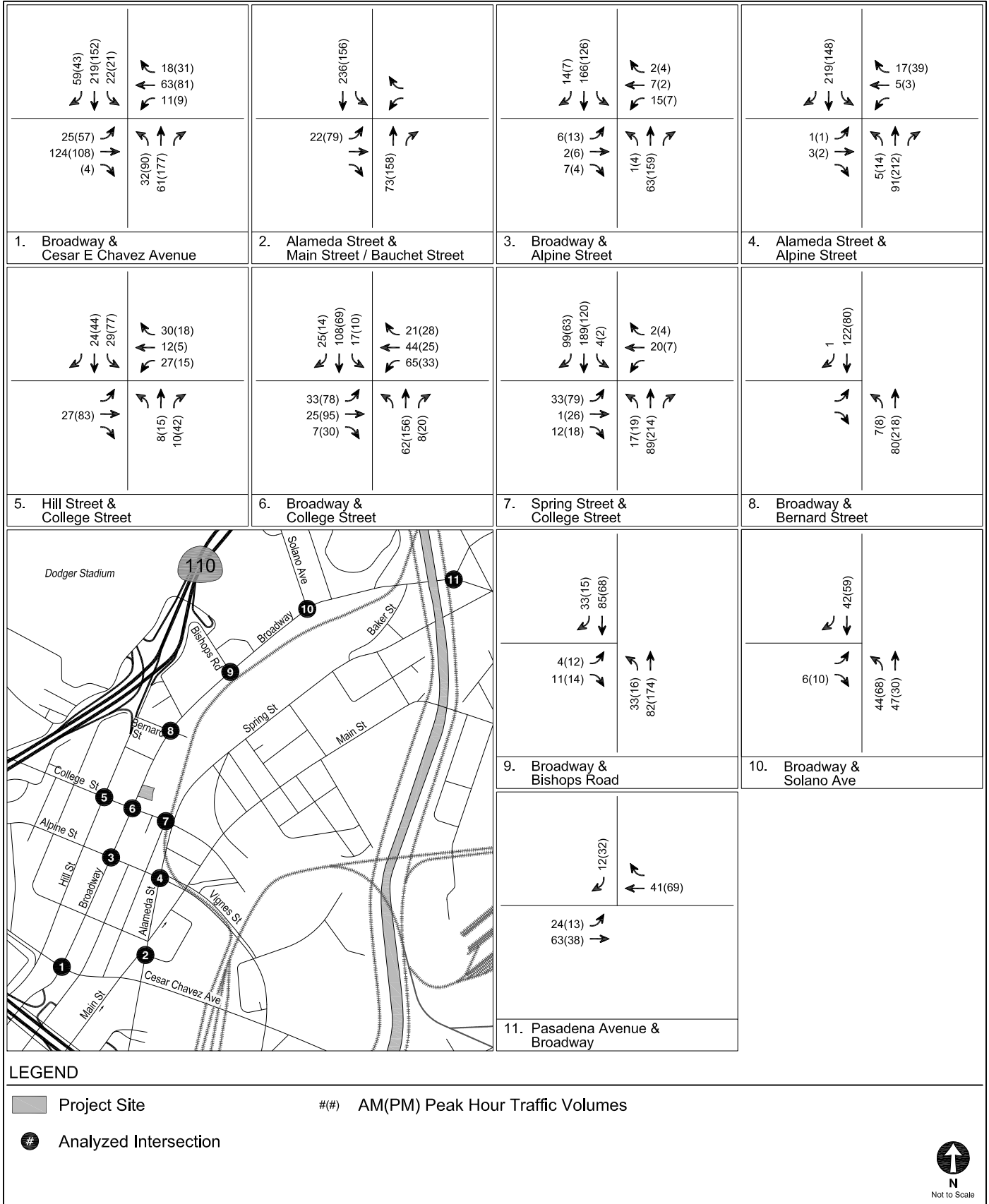
The LOS calculation worksheets are provided in Appendix D.



LOCATIONS OF RELATED PROJECTS

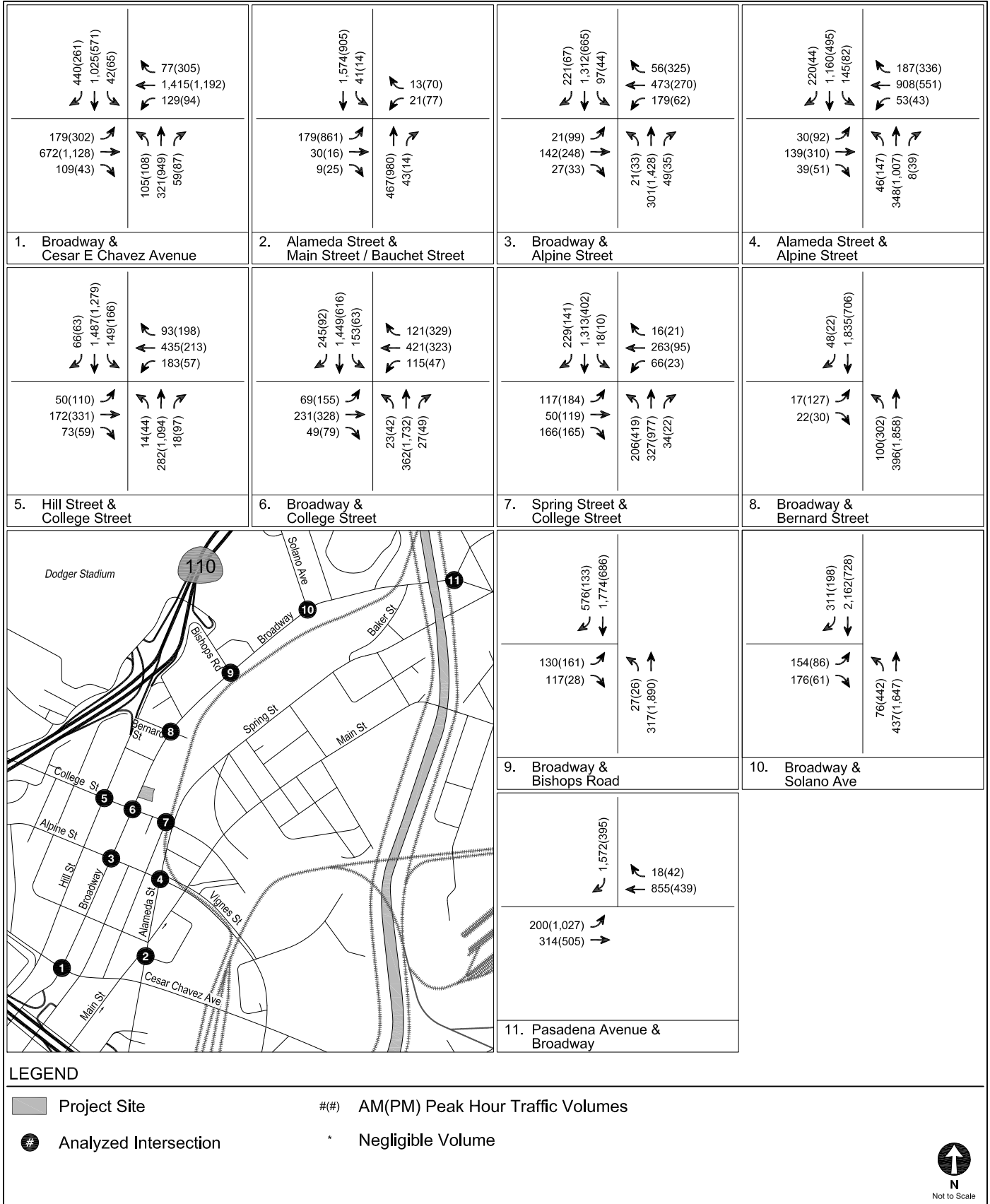
FIGURE 5





RELATED PROJECT-ONLY  
PEAK HOUR TRAFFIC VOLUMES

FIGURE  
6



FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2021)  
PEAK HOUR TRAFFIC VOLUMES

FIGURE  
7

**TABLE 6  
RELATED PROJECTS**

No.	Project	Address	Use	Trip Generation [a]						
				Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1. [b]	Blossom Plaza	900 N Broadway	223 condominium units, 25 ksf retail, 15 ksf restaurant, 7 ksf cultural center	2,767	66	89	155	105	79	184
2.	Hotel	1011 N Broadway	92 hotel rooms	821	36	26	62	31	33	64
3.	Bus Maintenance & Inspection Facility	454 E Commercial St	2 acre bus facility	0	22	8	30	9	1	10
4. [b]	Da Vinci Apartments	327 N Fremont Ave	600 apartment units and 30 ksf retail	5,457	113	248	361	286	217	503
5. [b]	Vibiana Lofts (Mixed-Use)	225 S Los Angeles St	300 condominium units and 3,400 sf retail	1,910	88	136	224	75	52	126
6.	1101 N Main Condos	1101 N Main St	316 condominium units	1,102	(9)	80	71	75	12	87
7. [b]	Mixed-Use Project (Megatoys)	905 E 2nd St	320 condominium units and 18,712 sf retail	1,207	(6)	70	64	69	23	92
8.	Stadium Way and Chavez Ravine Apartments	959 E Stadium Way	158 apartment units	1,051	16	65	81	64	34	98
9.	Barlow Hospital Replacement & Master Plan	2000 Stadium Way	888 condominium units, 56 hospital beds, and 15,000 sf retail	4,486	61	238	299	242	137	379
10.	Grand Avenue Project	100 S Grand Ave	968 condominium units, 242 apartment units, 225 room hotel, 152,150 sf retail, 650,000 sf office, 52,000 sf restaurant, 53,000 sf supermarket, 24,000 sf health club, and 250 seat event facility	17,652	842	446	1,288	841	1,129	1,970
11.	LA Civic Center Office	150 N Los Angeles St	712,500 sf office, 35,000 sf retail, and 2,500 sf child care	13,534	930	118	1,048	435	942	1,377
12.	Retail/Restaurant	201 S Broadway	27,765 sf retail/restaurant	1,638	(40)	(41)	(81)	53	17	70
13.	La Plaza Cultura Village	527 N Spring St	345 apartment units, 23,000 sf retail, 21,000 sf specialty retail, and 11,000 sf restaurant	3,585	49	118	167	189	131	320
14.	Residential	401 N Boylston St	101 apartment units	561	8	35	43	34	18	52
15.	Apartments	118 S Astronaut es Onizuka Street	77 apartment units	97	(1)	20	19	19	6	25
16.	Apartments	118 S Astronaut es Onizuka St	77 apartment units	97	(1)	20	19	19	6	25
17.	Mixed-Use	700 W Cesar Chavez Ave	300 apartment units and 8,000 sf retail	1,511	7	89	96	99	54	153
18.	Metro Emergency Security Operations Center	410 N Center Street	110,000 sf office	1,165	87	0	87	0	79	79
19.	Apartments	340 N Patton St	43 apartment units	267	4	16	20	17	8	25
20.	Mixed Use	167 W Ave 34	410 apartment units, 10,000 sf retail, and 30,000 sf office space	2,128	29	132	161	133	66	199
21.	Sunset Everett Mixed-Use	1185 W Sunset Bl	214 apartment units, 6 single family homes, and 6 condominium units	2,474	70	131	201	105	70	175
22.	Mixed-Use (Private Club)	929 E 2nd St	37,979 sf retail and 71,078 sf private club space	2,153	68	12	80	105	96	201
23.	Everett St. (1013) Project	1013 Everett Street	49 apartment units	310	5	19	24	19	9	28
24.	Hill Mixed Use Project	708 N Hill St	162 apartment units and 5,000 sf retail	980	16	57	73	57	33	90
25.	Alpine Mixed-Use	211 W Alpine Street	122 apartment units, 7,500 sf retail	566	9	42	51	37	18	55
26.	Beaudry Ave & 2nd St Mixed-Use Project	130 S Beaudry Ave	220 apartment units and 9,000 sf other	1,159	8	76	84	76	29	105
27.	College Station Mixed-Use	129 W College St, 924 N Spring St	770 apartment units and 51,390 sf commercial	6,583	169	290	461	307	201	509
28.	Apartments	1301 W Sunset Blvd	45 apartment units	328	6	18	24	19	11	30

Notes

[a] Source: Related project information based on available information at the time of the MOU (August 2018) provided by LADOT, Department of City Planning, and recent studies in the area.

[b] Although construction of the related project may be complete, the project was not fully occupied at the time when traffic counts were conducted. Therefore, the related project was considered and listed to provide a more conservative analysis.

TABLE 6 (CONTINUED)

RELATED PROJECTS

No.	Project	Address	Use	Trip Generation [a]						
				Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
29.	Kaiser Medical Center	765 W College St	100,000 sf medical office building	3,422	178	48	226	78	198	276
30.	1346 Court Apartments	1346 W Court St	43 apartment units	286	4	18	22	17	10	27
31.	1301 Colton Apartments	1301 Colton St	29 apartment units	193	3	12	15	12	6	18
32.	643-655 N Spring Street	643-655 N Spring St	281 apartment units, 142 hotel rooms, 17,003 sf commercial, and 2,532 sf restaurant	2,723	61	122	183	138	91	229
33.	1201 N Broadway Mixed-Use	1201 N Broadway	118 apartment units and 9,000 sf office	569	(11)	43	32	41	5	46
34.	1316 Court & 1323 Colton Apartments	1316 W Court St	60 apartment units	745	11	46	57	45	24	69
35.	Charter School	211 S Ave 20	263 high school students and 74 middle school students	1	570	99	54	153	22	24
36.	1300 W Court St	1300 W Court St	43 apartment units	286	4	18	22	17	10	27
37.	Tribune (LA Times) South Tower Project	222 W 2nd St	107 condominium units, 534,044 sf office, and 7,200 sf retail	4,006	467	93	560	118	423	541
38.	Mixed-Use (Times Mirror Square)	100 S Broadway	1,127 apartment units, 285,088 sf office, 50,000 sf supermarket, and 75,589 sf restaurant	8,535	94	341	435	294	38	332
39.	Apartments	1246 W Court St	54 apartment units	359	6	22	28	21	12	33
40.	Data Center	900 N Alameda St	179,900 sf data center	178	8	8	16	3	13	16
41.	Ferrante	1000 W Temple St	1,500 apartment units and 30,000 sf retail	11,256	170	622	792	658	383	1,041
42.	708 S New Depot Street Residential	708 S New Depot St	33 apartment units	219	3	14	17	13	7	20
43.	234 N Center Street	234 N Center St	430 apartment units, 8,742 sf retail	3,233	49	178	227	189	110	299
44.	220 N Center Street	220 N Center St	430 apartment units, 8,742 sf retail	2,166	33	119	152	121	79	200
45.	Wakaba LA	232 E 2nd St	240 apartment units, 16,000 sf retail	2,279	33	104	137	125	83	208
46.	Metro Emergency Security Operations Center	410 N Center St	110,000 sf office	1,165	87	0	87	0	79	79
47.	Beacon Tower	343 S Hill Street	428 apartment units	2,846	44	174	218	172	93	265
48.	Budokan of Los Angeles	237 S Los Angeles St	43,453 sf sports complex	1,869	79	50	129	161	98	259
49.	Alameda District Plan	Union Station Terminal Annex	22 residential units, 7,443,200 sf office, 645,000 sf retail, 750 hotel rooms, 20,000 sf restaurant, and 70,000 sf museum	25,312	862	527	1,389	734	1,042	1,776
50.	1111 Sunset Boulevard Mixed Use	1111 W Sunest Blvd	778 apartment units, 98 hotel rooms, 60,000 sf retail 35,000 sf retail, 48,000 sf office	10,585	292	386	678	445	361	806
51.	Elysian Park Lofts	1030 N Broadway	920 apartment units, 16,147 sf restaurant	4,660	91	263	354	272	151	423
52.	4th & Spring Hotel	361 S Spring St	315 hotel rooms and 2,000 sf meeting space	2,273	91	59	150	84	85	169
53.	Mixed-Use	643 N Broadway	294 apartment units, 149 hotel rooms, 15,900 sf retail	2,455	57	90	147	113	93	206
54.	Mixed-Use	849 N Bunker Hill Ave	37 apartment units	77	1	7	8	5	2	7

Notes

[a] Source: Related project information based on available information at the time of the MOU (August 2018) provided by LADOT, Department of City Planning, and recent studies in the area.

[b] Although construction of the related project may be complete, the project was not fully occupied at the time when traffic counts were conducted. Therefore, the related project was considered and listed to provide a more conservative analysis.

**TABLE 7  
FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2021)  
INTERSECTION LEVELS OF SERVICE AND IMPACTS**

No	Intersection	Peak Hour	Future without Project Conditions	
			V/C	LOS
1.	Broadway & Cesar Chavez Avenue	AM	0.936	E
		PM	0.878	D
2.	Alameda Street & Main Street/Bauchet Street	AM	0.337	A
		PM	0.519	A
3.	Broadway & Alpine Street	AM	0.716	C
		PM	0.745	C
4.	Alameda Street & Alpine Street	AM	0.679	B
		PM	0.583	A
5.	Hill Street & College Street	AM	0.698	B
		PM	0.657	B
6.	Broadway & College Street	AM	0.704	C
		PM	0.940	E
7.	Spring Street & College Street	AM	0.683	B
		PM	0.532	A
8.	Broadway & Bernard Street	AM	0.647	B
		PM	0.647	B
9.	Broadway & Bishops Road	AM	0.892	D
		PM	0.659	B
10.	Broadway & Solano Avenue	AM	0.979	E
		PM	0.628	B
11.	Pasadena Avenue & Broadway	AM	0.889	D
		PM	0.442	A

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## **Chapter 4**

### **Project Traffic**

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

#### **PROJECT DESCRIPTION**

The Project proposes a 27-story mixed-use development consisting of 178 multi-family units (of which 169 are intended as market rate and nine are designated as affordable dwelling units), 2,253 sf of quality restaurant space, 2,252 sf of high turnover restaurant space, 532 sf of retail, and 31,777 sf of office space that will replace an existing 16,965 sf retail center. The project is anticipated to be complete by 2021.

The Project will provide vehicular and bicycle parking in accordance with the LAMC.

Vehicular access to the Project Site includes a single full access driveway (i.e., right-turn and left-turn ingress and egress movements) along Broadway, designed in accordance with LADOT standard width.

#### **PROJECT TRIP GENERATION**

The number of trips expected to be generated by the Project was estimated using rates published in *Trip Generation, 10<sup>th</sup> Edition*. These rates are based on surveys of similar land uses at sites around the country and are provided as both daily rates and morning and afternoon peak hour rates. They relate the number of vehicle trips traveling to and from the Project Site to the size of development of each land use.

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Allowable trip generation reductions to account for public transit usage and trips shared between the residential and restaurant uses were made in consultation with LADOT and are consistent with *Transportation Impact Study Guidelines*. The trip generation estimates for the commercial land uses accounted for a 25% transit/walk-in reduction, in accordance with *Transportation Impact Study Guidelines*, for a development adjacent to a Metro Rail station (Metro Gold Line Chinatown Station). Internal capture adjustments were applied to the Project using the *NCHRP 8-51 Internal Trip Capture Estimation Tool* (Transportation Research Board and National Research Council, 2011) to account for person trips made between distinct land uses within a mixed-use development (e.g., residents visiting the restaurant uses). Additionally, a 50% pass-by reduction was applied to the retail, a 20% pass-by reduction was applied to the high turnover restaurant, and a 10% pass-by reduction was applied to the quality restaurant use to account for Project trips made as an intermediate stop on the way from an origin to a primary trip destination without route diversion.

As shown in Table 8, after accounting for the adjustments above, the Project is expected to generate 672 new daily trips on a typical weekday, including 66 new morning peak hour trips (27 inbound, 39 outbound) and 59 new afternoon peak hour trips (32 inbound, 27 outbound).

## **PROJECT TRIP DISTRIBUTION**

Similar to the trip distribution of traffic for the Related Projects described in Chapter 3, the geographic distribution of trips generated by the Project is dependent on the location of employment and residential centers from which residents and patrons of the Project would be drawn, characteristics of the street system serving the Project Site, the level of accessibility of the routes to and from the Project Site, existing intersection traffic volumes, the Project ingress/egress availability based on the proposed site access and circulation scheme, and the location of the proposed driveways, as well as input from LADOT staff.

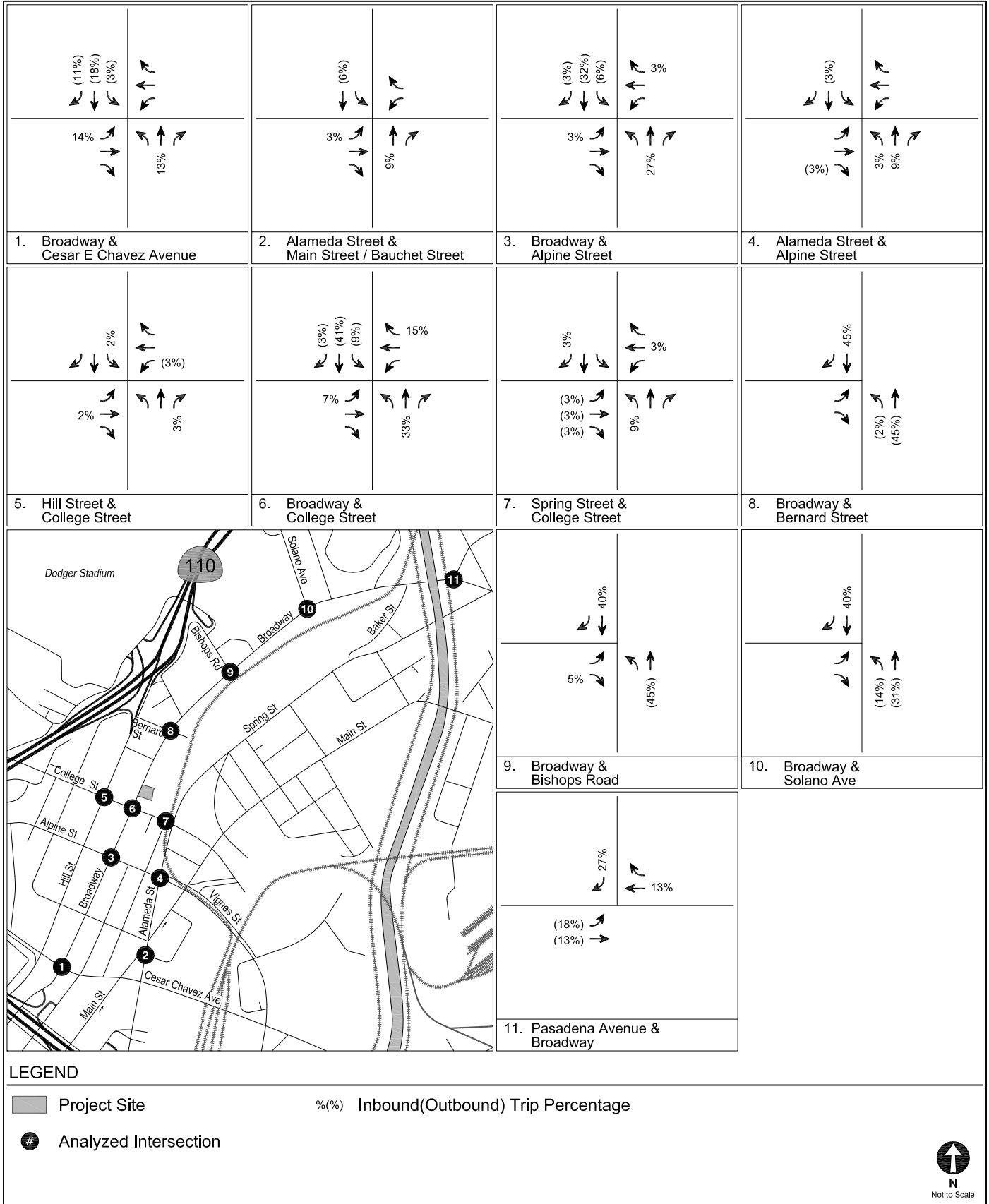
Access to the Project Site would be provided via a full-access driveway along Broadway. Based on these considerations, traffic entering and exiting the Project was assigned to the surrounding street system. The intersection-level trip distribution patterns for the Project are shown in Figures 8. Regionally, the pattern is as follows:

- 
- 26% to/from the north
  - 42% to/from the south
  - 17% to/from the east
  - 15% to/from the west

## **PROJECT TRIP ASSIGNMENT**

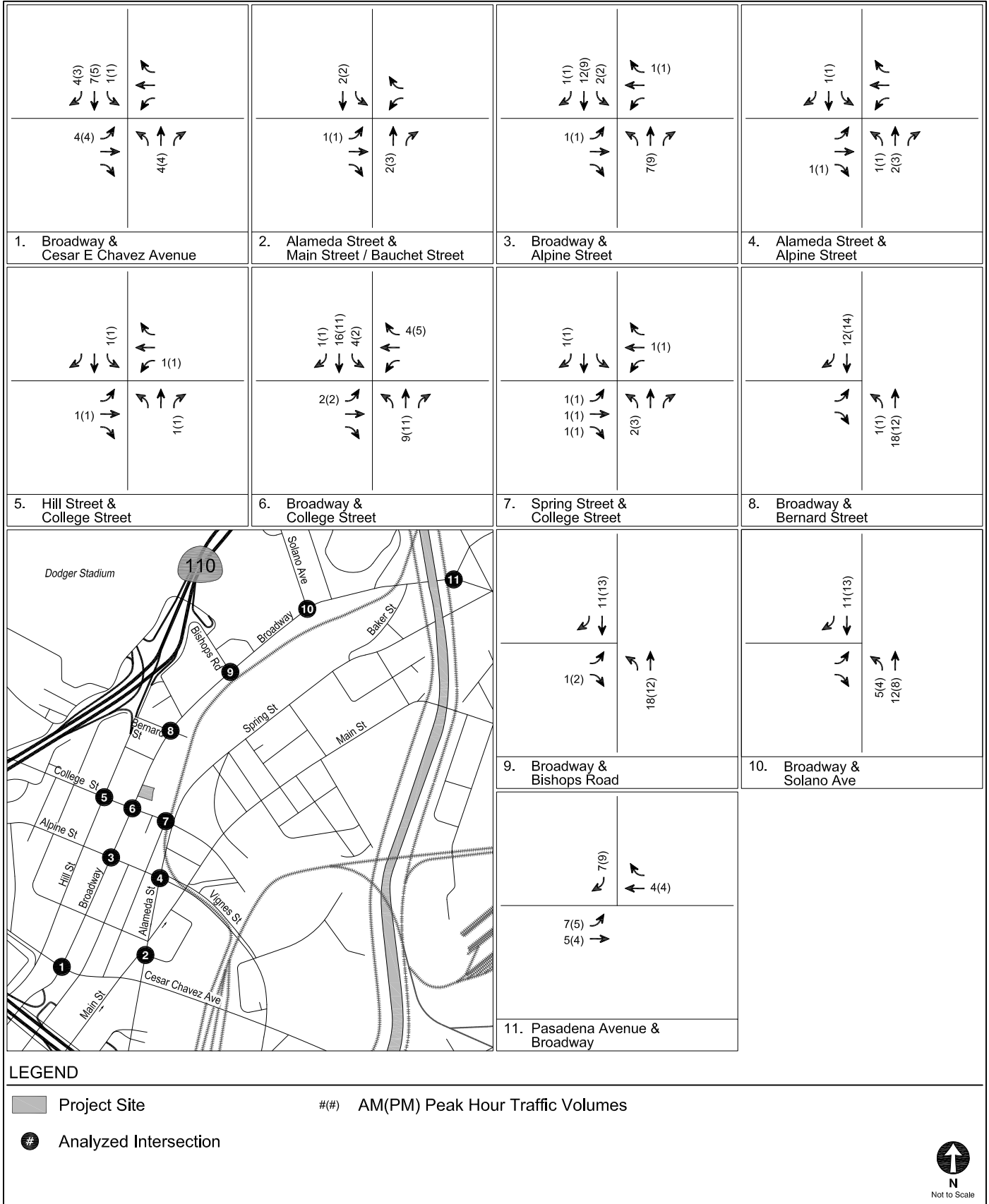
The Project trip generation estimates summarized in Table 8 and the trip distribution patterns shown in Figure 8 was used to assign the Project-generated traffic through the study intersections. Figure 9 illustrates Project-only traffic volumes at the study intersections during typical weekday morning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





PROJECT TRIP DISTRIBUTION

FIGURE  
8



**LEGEND**

- Project Site
- Analyzed Intersection
- #(##) AM(PM) Peak Hour Traffic Volumes



**PROJECT-ONLY  
PEAK HOUR TRAFFIC VOLUMES**

**FIGURE  
9**

**TABLE 8  
PROJECT TRIP GENERATION ESTIMATES**

TRIP GENERATION RATES [a]									
Land Use	ITE Land Use	Rate	Daily	Morning Peak Hour			Afternoon Peak Hour		
				In	Out	Total	In	Out	Total
High-Rise Residential (Dense Multi-Use Urban) [b]	222	per Dwelling Unit	2.07	12%	88%	0.21	70%	30%	0.19
Retail	820	per ksf	37.75	62%	38%	0.94	48%	52%	3.81
Quality Restaurant	931	per ksf	83.84	55%	45%	0.73	67%	33%	7.80
High-Turnover (Sit-Down) Restaurant	932	per ksf	112.18	55%	45%	9.94	62%	38%	9.77
General Office (Dense Multi-Use Urban) [c]	710	per ksf	9.74	86%	14%	0.83	17%	83%	0.87
<b>MIXED USE INTERNAL CAPTURE CREDIT [d]</b>									
High-Rise Residential (Dense Multi-Use Urban) [b]	220		0%	0%	0%		0%	0%	
Restaurant	932		18%	46%	27%		12%	21%	
General Office (Dense Multi-Use Urban) [c]	710		0%	0%	0%		0%	0%	
Retail	820		0%	0%	0%		0%	0%	
<b>TRIP GENERATION ESTIMATES</b>									
Land Use	ITE Land Use	Size	Daily	Morning Peak Hour			Afternoon Peak Hour		
				In	Out	Total	In	Out	Total
<b>Proposed Project</b>									
High-Rise Residential (Dense Multi-Use Urban) [b]	222	178 DU	368	4	33	37	24	10	34
Quality Restaurant	931	2.253 ksf	189	1	1	2	12	6	18
Internal Capture Adjustment [d]			-10	0	0	0	-1	-1	-2
Transit/HOV Adjustment - 25% [e]			-45	0	-1	-1	-3	-1	-4
Pass-By Trip Adjustment - 10% [f]			-13	0	0	0	-1	0	-1
High-Turnover (Sit-Down) Restaurant	932	2.252 ksf	253	12	10	22	14	8	22
Internal Capture Adjustment [d]			-75	-6	-3	-9	-2	-2	-4
Transit/HOV Adjustment - 25% [e]			-45	-2	-1	-3	-3	-2	-5
Pass-By Trip Adjustment - 20% [f]			-27	-1	-1	-2	-2	-1	-3
General Office (Dense Multi-Use Urban) [c]	710	31.777 ksf	310	22	4	26	5	23	28
Retail	820	0.532 ksf	20	1	0	1	1	1	2
Internal Capture Adjustment [d]			0	0	0	0	0	0	0
Transit/HOV Adjustment - 25% [e]			-5	0	0	0	0	-1	-1
Pass-By Trip Adjustment - 50% [f]			-8	-1	0	-1	-1	0	-1
<b>TOTAL PROPOSED PROJECT TRIPS</b>			<b>912</b>	<b>30</b>	<b>42</b>	<b>72</b>	<b>43</b>	<b>40</b>	<b>83</b>
<b>Existing to be Removed</b>									
Retail	820	16.965 ksf	640	10	6	16	31	34	65
Transit/HOV Adjustment - 25% [e]			-160	-3	-1	-4	-8	-8	-16
Pass-By Trip Adjustment - 50% [f]			-240	-4	-2	-6	-12	-13	-25
<b>TOTAL REMOVED PROJECT TRIPS</b>			<b>240</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>11</b>	<b>13</b>	<b>24</b>
<b>TOTAL - NET NEW PROJECT TRIPS</b>			<b>672</b>	<b>27</b>	<b>39</b>	<b>66</b>	<b>32</b>	<b>27</b>	<b>59</b>

**Notes:**

- ksf: 1,000 square feet
- [a] Trip generation rates are from *Trip Generation, 10th Edition* (Institute of Transportation Engineers, 2017) and are based on developments located in "General Urban/Suburban" area, unless otherwise noted.
- [b] Trip generation rates for multi-family housing (high-rise) are based on developments located in "Dense Multi-Use Urban" area as detailed in *Trip Generation, 10th Edition*. These base rates already include adjustments for transit/walk-in, pass-by, and internal capture as detailed below.
- [c] Trip generation rates for general office are based on developments located in "Dense Multi-Use Urban" area as detailed in *Trip Generation, 10th Edition*. Daily trip rate is based on developments located in "General Urban/Suburban" area as no vehicle-rate is available for "Dense Multi-Use Urban" location. These rates already include adjustments for transit/walk-in, pass-by, and internal capture as detailed below.
- [d] Internal capture adjustments account for person trips made between distinct land uses within a mixed-use development without using an off-site road system. Based on the NCHRP 8-51 Internal Trip Capture Estimation Tool (National Cooperative Highway Research Program Report 684 – Enhancing Internal Trip Capture Estimation for Mixed-Use Developments, Transportation Research Board and National Research Council, 2011), the Project trips have been adjusted to account for internal capture.
- [e] Per LADOT's *Transportation Impact Study Guidelines*, the Project Site is located within walking distance from the Metro Gold Line Chinatown station, therefore a transit reduction is applied to account for transit usage and walking visitor arrivals from the surrounding neighborhoods and adjacent commercial developments, and for arrivals via taxi and carpool services.
- [f] Pass-by adjustments account for Project trips made as an intermediate stop on the way from an origin to a primary trip destination without route diversion.

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## ***Chapter 5***

### ***Existing with Project Conditions***

This chapter describes the results of the analysis of intersection operating conditions associated with the Project when compared to Existing Conditions. The analysis corresponds with the Existing Conditions data and analysis presented in Chapter 2. The Existing with Project Conditions reflect Existing Conditions with the addition of Project traffic.

#### **EXISTING WITH PROJECT TRAFFIC VOLUMES**

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

#### **EXISTING WITH PROJECT INTERSECTION LEVELS OF SERVICE**

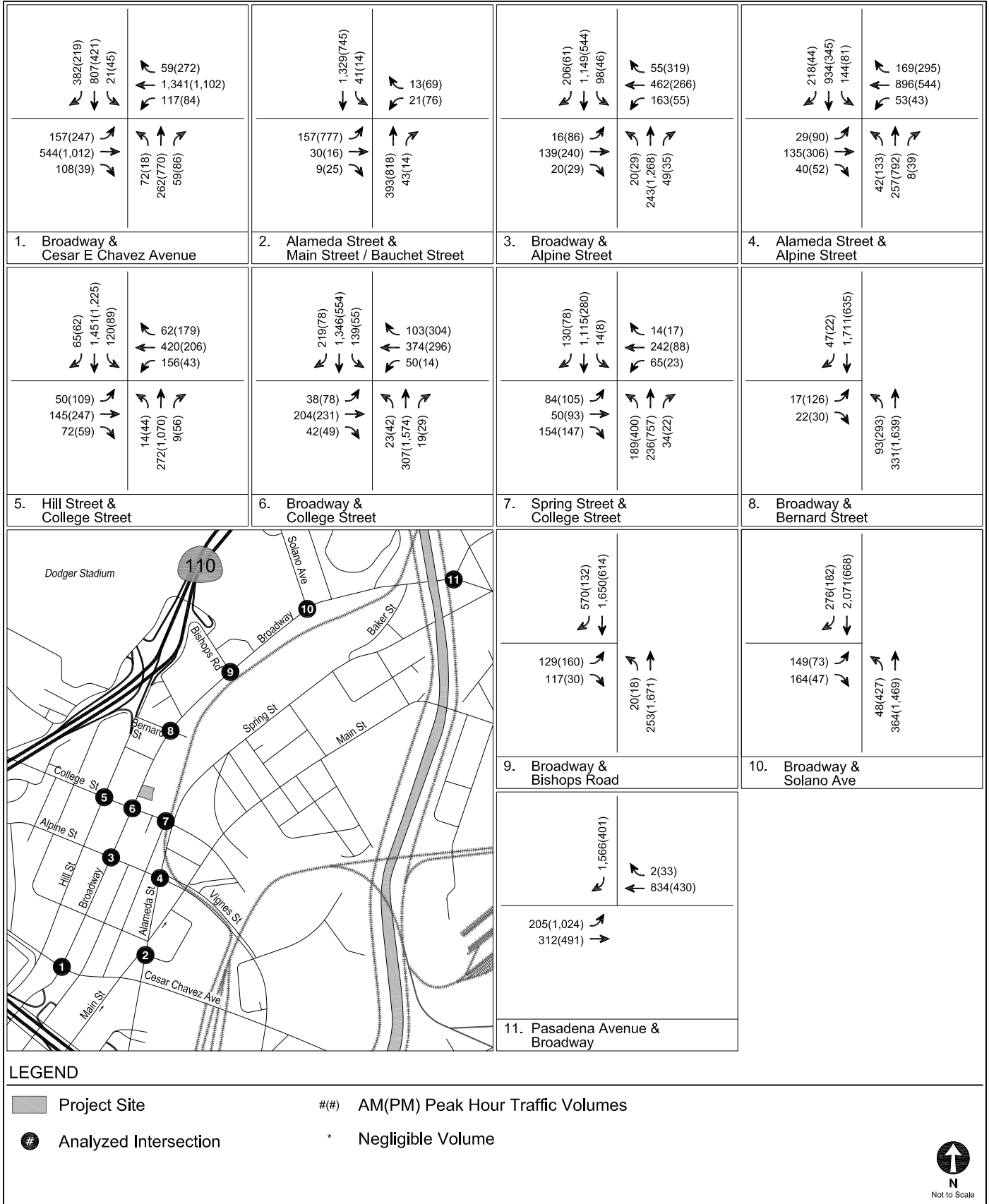
Table 9 summarizes the results of the Existing with Project Conditions during the weekday morning and afternoon peak hours for the 11 study intersections. As shown in Table 9, all 11 study intersections are anticipated to continue to operate at LOS D or better during both the morning and afternoon peak hours under Existing with Project Conditions.

#### **EXISTING WITH PROJECT IMPACTS**

The relative impact of the added Project traffic volumes during the peak hours was evaluated based on analysis of existing operating conditions at the study intersections without and with the Project. The previously discussed significance criteria and thresholds summarized in Chapter 1 were then used to determine the significance of a transportation impact caused by the Project

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on the study intersection, prior to any Project improvements or trip reduction measures. The potential Project impacts on the Existing with Project Conditions during the weekday morning and afternoon peak hours are shown in Table 9. The Project does not meet the criteria for significant impacts at any of the 11 intersections. Therefore, no traffic improvements are required.



EXISTING WITH PROJECT CONDITIONS (YEAR 2018)  
PEAK HOUR TRAFFIC VOLUMES

FIGURE  
10

**TABLE 9  
EXISTING WITH PROJECT CONDITIONS (YEAR 2018)  
INTERSECTION LEVELS OF SERVICE AND IMPACTS**

No	Intersection	Peak Hour	Existing Conditions		Existing with Project Conditions			
			V/C	LOS	V/C or Delay	LOS	Change in V/C or Delay	Significant Impact
1.	Broadway & Cesar Chavez Avenue	AM	0.792	C	0.797	C	0.005	NO
		PM	0.740	C	0.744	C	0.004	NO
2.	Alameda Street & Main Street/Bauchet Street	AM	0.271	A	0.271	A	0.000	NO
		PM	0.447	A	0.447	A	0.000	NO
3.	Broadway & Alpine Street	AM	0.634	B	0.640	B	0.006	NO
		PM	0.669	B	0.675	B	0.006	NO
4.	Alameda Street & Alpine Street	AM	0.591	A	0.592	A	0.001	NO
		PM	0.488	A	0.489	A	0.001	NO
5.	Hill Street & College Street	AM	0.661	B	0.661	B	0.000	NO
		PM	0.588	A	0.589	A	0.001	NO
6.	Broadway & College Street	AM	0.592	A	0.600	A	0.008	NO
		PM	0.763	C	0.772	C	0.009	NO
7.	Spring Street & College Street	AM	0.560	A	0.562	A	0.002	NO
		PM	0.408	A	0.412	A	0.004	NO
8.	Broadway & Bernard Street	AM	0.593	A	0.598	A	0.005	NO
		PM	0.565	A	0.569	A	0.004	NO
9.	Broadway & Bishops Road	AM	0.813	D	0.817	D	0.004	NO
		PM	0.579	A	0.584	A	0.005	NO
10.	Broadway & Solano Avenue	AM	0.824	D	0.831	D	0.007	NO
		PM	0.481	A	0.487	A	0.006	NO
11.	Pasadena Avenue & Broadway	AM	0.852	D	0.857	D	0.005	NO
		PM	0.442	A	0.446	A	0.004	NO

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## **Chapter 6**

### ***Future with Project Conditions***

This chapter describes the results of the analysis of intersection operating conditions associated with the Project when compared to future cumulative (Future without Project) conditions. The analysis Year 2021 corresponds to the anticipated buildout year of the Project. All future cumulative traffic growth (i.e., Ambient and Related Project traffic growth) and transportation infrastructure improvements described in Chapter 3 are incorporated into this analysis.

#### **FUTURE WITH PROJECT TRAFFIC VOLUMES**

The Project-only morning and afternoon peak hour traffic volumes described in Chapter 4 and shown in Figure 9 were added to the Future without Project morning and afternoon peak hour traffic volumes shown in Figure 7. The resulting volumes are illustrated in Figure 11 and represent Future with Project Conditions after completion in Year 2021.

#### **FUTURE WITH PROJECT INTERSECTION LEVELS OF SERVICE**

Table 10 summarizes the results of the Future with Project Conditions (Year 2021) during the weekday morning and afternoon peak hours for the 11 study intersections. As shown in Table 10, eight of the 11 study intersections would continue to operate at LOS D or better during both the weekday morning and afternoon peak hours, as under Future without Project Conditions.

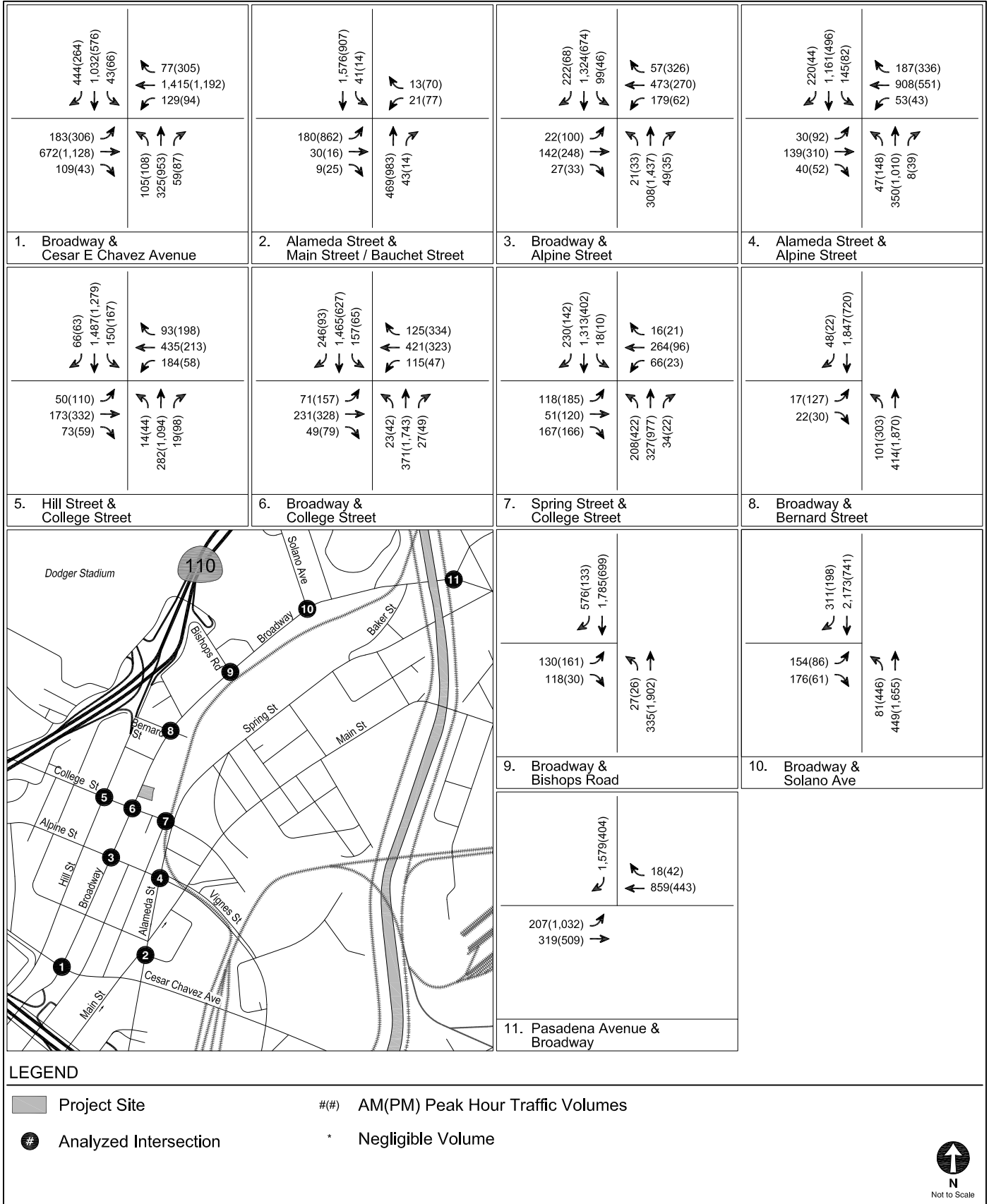
#### **FUTURE WITH PROJECT IMPACTS**

The relative impact of the added Project traffic volumes during the peak hours was evaluated based on analysis of future operating conditions at the study intersections without and with the Project. The previously discussed significance criteria and thresholds summarized in Chapter 1



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were then used to determine the significance of a transportation impact caused by the Project on the study intersection, prior to any Project improvements or trip reduction measures. The potential Project impacts on the Future with Project Conditions during the weekday morning and afternoon peak hours are shown in Table 10. The Project does not meet the criteria for significant impacts at any of the 11 intersections. Therefore, no traffic improvements are required.



**LEGEND**

- Project Site
- Analyzed Intersection
- (#) AM(PM) Peak Hour Traffic Volumes
- \* Negligible Volume



FUTURE WITH PROJECT CONDITIONS (YEAR 2021)  
PEAK HOUR TRAFFIC VOLUMES

FIGURE  
11

**TABLE 10  
FUTURE WITH PROJECT CONDITIONS (YEAR 2021)  
INTERSECTION LEVELS OF SERVICE AND IMPACTS**

No	Intersection	Peak Hour	Future without Project Conditions		Future with Project Conditions			
			V/C	LOS	V/C or Delay	LOS	Change in V/C or Delay	Significant Impact
1.	Broadway & Cesar Chavez Avenue	AM	0.936	E	0.940	E	0.004	NO
		PM	0.878	D	0.882	D	0.004	NO
2.	Alameda Street & Main Street/Bauchet Street	AM	0.337	A	0.338	A	0.001	NO
		PM	0.519	A	0.520	A	0.001	NO
3.	Broadway & Alpine Street	AM	0.716	C	0.722	C	0.006	NO
		PM	0.745	C	0.750	C	0.005	NO
4.	Alameda Street & Alpine Street	AM	0.679	B	0.680	B	0.001	NO
		PM	0.583	A	0.584	A	0.001	NO
5.	Hill Street & College Street	AM	0.698	B	0.698	B	0.000	NO
		PM	0.657	B	0.658	B	0.001	NO
6.	Broadway & College Street	AM	0.704	C	0.713	C	0.009	NO
		PM	0.940	E	0.948	E	0.008	NO
7.	Spring Street & College Street	AM	0.683	B	0.686	B	0.003	NO
		PM	0.532	A	0.535	A	0.003	NO
8.	Broadway & Bernard Street	AM	0.647	B	0.652	B	0.005	NO
		PM	0.647	B	0.651	B	0.004	NO
9.	Broadway & Bishops Road	AM	0.892	D	0.896	D	0.004	NO
		PM	0.659	B	0.664	B	0.005	NO
10.	Broadway & Solano Avenue	AM	0.979	E	0.986	E	0.007	NO
		PM	0.628	B	0.635	B	0.007	NO
11.	Pasadena Avenue & Broadway	AM	0.889	D	0.895	D	0.006	NO
		PM	0.442	A	0.445	A	0.003	NO

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## **Chapter 7**

# **Congestion Management Program Analysis**

This chapter presents an analysis of the regional transportation facilities in the vicinity of the Project Site, in accordance with the procedures outlined in the CMP.

### **TRAFFIC IMPACT ANALYSIS GUIDELINES**

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

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

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

#### **Arterial Monitoring Intersection TIA Guidelines**

The CMP requires that a TIA be performed for all CMP arterial monitoring intersections where a project would add 50 or more trips during either the weekday morning or afternoon peak hours. A detailed analysis is not required if the project adds fewer than 50 trips to an arterial monitoring intersection. The CMP analysis uses the same CMA methodology as used in the preceding chapters for City intersections to determine intersection V/C ratio and LOS. A significant impact requiring mitigation occurs if project traffic causes an incremental increase in intersection V/C ratio of 0.02 or greater to a facility projected to operate at LOS F ( $V/C > 1.00$ ) after the addition of project traffic.

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### **Mainline Freeway Monitoring Location TIA Guidelines**

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

### **Transit Impact Review Guidelines**

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

### **ARTERIAL MONITORING STATION ANALYSIS**

There are no CMP arterial monitoring intersections within the Study Area. The nearest arterial monitoring intersection is Alvarado Street & Sunset Boulevard, approximately 1.90 miles west of the Project Site and well beyond the Study Area. Based on Figure 9, only a small number of Project trips would travel on Cesar E. Chavez Avenue, which becomes Sunset Boulevard to the northwest. Therefore, the Project would not generate 50 or more peak hour trips at the identified monitoring intersection and no further analysis is required.

### **FREEWAY SEGMENT ANALYSIS**

The CMP identifies the following three mainline freeway monitoring locations near the vicinity of the Project Site:

- 
- SR 110 at Alpine Street (0.8 miles southwest of the Project Site)
  - US 101 north of Vignes Street (1.0 mile southeast of the Project Site)
  - SR 110 south of US 101 (1.25 miles southwest of the Project Site)

However, the Project generates fewer than 150 peak hour trips and therefore would add fewer than 150 peak hour trips to any freeway monitoring location. Therefore, the Project's CMP mainline freeway impacts are considered to be less than significant and no further analysis is required.

## **REGIONAL TRANSIT IMPACT ANALYSIS**

Section B.8.4 of the CMP provides a methodology for estimating the number of transit person trips expected to result from a proposed project based on the number of vehicle trips. The CMP methodology utilizes an average vehicle occupancy (AVO) factor of 1.4 in order to estimate the number of person trips to and from the Project and guidance regarding the percentage of person trips that may use public transit. Based on the assumptions in the trip generation estimates shown in Table 8, an allowable transit/walk-in adjustment of up to 25% was applied to account for the use of non-auto travel modes (e.g., rail, light-rail, bus, bicycle, walk, etc.) For the purposes of this analysis, all of the transit/walk-in trip estimates from Table 8 were conservatively assumed to travel via public transit.

Based on the trip generation rates for each land use component, and prior to taking any vehicular reduction credits, the Project is anticipated to generate approximately 88 morning vehicular peak hour trips and 104 afternoon vehicular peak hour trips. Assuming an AVO factor of 1.4 to convert vehicle trips into person trips, this results in an estimated increase of 123 person trips during the morning peak hour and 146 person trips during the afternoon peak hour. Using the allowable 25% mode split for the restaurant and retail uses due to transit proximity, the Project would generate approximately six new transit person trips in the morning peak hour and 14 new transit person trips in the afternoon peak hour.

As detailed in Chapter 2, the Study Area is served by numerous established transit routes. The total residual capacity of the bus lines within the Study Area during the morning and afternoon peak hours is approximately 8,637 and 8,431 transit trips, respectively. The Project morning and

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afternoon peak hour person trips by transit are projected at six and 14 trips, respectively, or less than 1% of the total residual capacity of the bus lines within the Study Area during morning and afternoon peak. The additional transit person trips generated by the Project could easily be absorbed into the system using current residual capacity. Therefore, the Project impact to the regional transit system is anticipated to be less than significant.

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## **Chapter 8**

### **Site Access and Internal Circulation**

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

#### **VEHICULAR ACCESS AND CIRCULATION**

Vehicular access to the Site would be provided via a full access driveway along Broadway north of College Street, along the southernmost Project boundary. The driveway width will conform to LADOT minimum standards for a commercial driveway and includes a single inbound and single outbound travel lane. The circulation aisle widths of the parking areas are designed to allow adequate and safe circulation of vehicles without significant conflicts and conform to LADOT parking aisle width standards.

Large trucks for deliveries and residential moving will be accommodated on site, at Level P1 below grade, with all truck turning maneuvers taking place within that level to not interfere with traffic or pedestrian movement on City streets.

In order to meet the LADOT driveway width standards, the 30 foot width encroaches into the Metro bus pad located along the east curb and will effectively shorten the length of that bay. Metro requires a 90-foot pad and appropriate transition space to enter the landing area. Based on the required configuration of the driveway, Metro may choose to relocate this bus stop. Should the stop no longer meet Metro specifications, coordination with Metro and LADOT would be needed to finalize the design of the driveway and any necessary adjustments to the transit stop.

In front of the Project, Broadway provides a two-way, left-turn lane for safe storage of vehicles and the speed limit is posted at 30 mph. There are traffic signals at both ends of the block that increase the likelihood of traffic gaps that allow left-turn movements both in and out of the Project driveway. No additional turn lanes or traffic control is required at the driveway.



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## **PEDESTRIAN AND BICYCLE ACCESS AND CIRCULATION**

Pedestrian access to the Project Site would be provided via restaurant, office lobby, and residential lobby entrances served from the sidewalks along Broadway. The sidewalk fronting Broadway will be enhanced to 18 feet wide to provide an inviting parkway for pedestrian movement. Additionally, the Project proposes to increase the width of the existing mid-block crosswalk, which is currently 23 feet wide to 55 feet wide, to fully encompass the Project's plaza area and continue to align with the Chinatown Central Plaza on the west side of Broadway. This widening of approximately 32 feet would occur on the north side of the crosswalk, requiring the southbound vehicle limit line to move and potentially require relocation of the traffic signal poles and/or controller equipment to encompass the entire width, and may include additional lighting requirements. This proposed improvement must be processed through the Bureau of Engineering and Street Services for complete specifications and approval.

As part of the Project, bicycle parking spaces and storage would be provided within the parking areas. Bicycle access to the bicycle facilities would be shared with the vehicular access at the driveways along Broadway.

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## **Chapter 9**

# **Construction Impact Analysis**

This chapter summarizes the construction schedule and construction impact analysis for the Project. The construction impact analysis relates to the temporary impacts that may result from the construction activities of the Project, which may include safety, operational, or capacity impacts.

### **TYPES OF CONSTRUCTION IMPACTS**

Traffic impacts from construction activities could occur as a result of the following types of activities:

- Increases in truck traffic associated with export or import of fill materials and delivery of construction materials
- Increases in automobile traffic associated with construction workers traveling to and from the Project Site
- Reductions in existing street capacity or on-street parking from temporary lane closures necessary for the construction of roadway improvements, utility relocation, and drainage facilities
- Blocking existing vehicle or pedestrian access to other parcels fronting streets

The impact of construction traffic (including haul trucks) would be a lessening of the capacities of access streets and haul routes due to slower movements and larger turning radii of trucks.

### **PROPOSED CONSTRUCTION SCHEDULE**

The Project is anticipated to be constructed over a period of approximately 32 months. Completion of the full project is anticipated in the Year 2021. The construction period would include sub-phases of site demolition, excavation and grading, foundations, and building

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construction. Peak haul truck activity occurs during excavation and grading, and peak worker activity occurs during building construction. These two sub-phases of construction were studied in greater detail.

## **EXCAVATION AND GRADING PHASE**

The peak period of truck activity during construction would occur during excavation and grading of the Project Site.

With the implementation of the Construction Management Plan, which is described in more detail later in this chapter, it is anticipated that haul truck activity to and from the Project Site would occur outside of the morning and afternoon peak hours. In addition, as discussed in more detail in the following section, worker trips to and from the Project Site would also occur outside of the peak hours. Therefore, no peak hour construction traffic impacts are expected during the excavation and grading phase of construction.

Construction haul trucks would travel on approved truck routes designated within the City and on State facilities. Caltrans currently imposes heavy vehicles restrictions on SR 110 from the junction with Highway 101 to Glenarm Street in Pasadena. As such, heavy construction vehicles must utilize I-5 from Broadway. The City requires a specific application for review of import/export materials which includes identification of the haul route. This application will ultimately be reviewed and approved by the City and is not part of this Transportation Impact Study.

Based on projections of the Project, approximately 69,503 cubic yards (CY) of material would be demolished, excavated, and removed from the Project Site over a 161-workday period during the excavation and grading phase. That equates to approximately 432 CY of material exported each workday, requiring 31 haul trucks per workday based on an anticipated haul truck capacity of 14 CY each. Thus, up to 62 daily haul truck trips (31 inbound, 31 outbound) are forecast to occur during the excavation and grading period, with approximately 10 trips per hour (five inbound, five outbound) uniformly over a typical six-hour workday.

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*Transportation Research Circular No. 212* defines passenger car equivalency (PCE) for a vehicle as the number of through moving passenger cars to which it is equivalent based on the vehicle's headway and delay-creating effects. Table 8 of *Transportation Research Circular No. 212* and Exhibit 22.11 of *Highway Capacity Manual, 6<sup>th</sup> Edition* (Transportation Research Board, 2016) suggest a PCE of 2.0 for trucks. Assuming a PCE factor of 2.0, the 161 truck trips would be equivalent to 322 daily PCE trips. The 10 hourly truck trips for the Project Site would be equivalent to 20 PCE trips (10 inbound, 10 outbound) per hour.

In addition, during this period a maximum of 10 construction workers for the Project would work at the Project Site during this phase. Assuming minimal carpooling amongst those workers, an AVO of 1.135 persons per vehicle was applied, as provided in *CEQA Air Quality Handbook* (South Coast Air Quality Management District, 1993). Therefore, 10 total workers would result in a total of nine vehicle trips to and from the Project Site on a daily basis.

With implementation of the Construction Management Plan, it is anticipated that haul truck activity to and from the Project Site would occur outside of the morning and afternoon peak hours. In addition, hours of construction typically require worker trips to and from the Project Site to also occur outside of the peak hours. Therefore, no peak hour construction traffic impacts are expected during the excavation and grading phase of construction.

## **BUILDING CONSTRUCTION PHASE**

The traffic impacts associated with construction workers depends on the number of construction workers employed during various phases of construction, as well as the travel mode and travel time of the workers. In general, as stated above, the hours of construction typically require workers to be on-site before the weekday morning commuter peak period and allow them to leave before or after the afternoon commuter peak period (i.e., arrive at the site prior to 7:00 AM and depart before 4:00 PM or after 6:00 PM). Therefore, most, if not all, construction worker trips would occur outside of the typical weekday commuter peak periods.

The estimated number of construction workers each day depends on the stage of construction. According to construction projections prepared for the Project, the building subphase of construction would employ the most construction workers, with a maximum of approximately

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210 workers per day for all components of the building (i.e., framing, plumbing, elevators, inspections, finishing). However, since the different building components would not be constructed or installed simultaneously, this cumulative estimate likely overstates the number of workers that would be expected on the peak construction day. Furthermore, on most of the estimated workdays to complete the Project, there would be far fewer workers than on the peak day. Therefore, the estimate of 210 workers per day used for the purposes of this analysis represents a very conservative estimate.

Assuming an AVO of 1.135 persons per vehicle, 210 workers would result in a total of 185 vehicles that would arrive and depart from the Project Site each day. The estimated number of daily trips associated with the construction workers is approximately 370 (185 inbound, 185 outbound trips), but nearly all of those trips would occur outside of the peak hours, as described above. Additionally, 50 vendor trucks are anticipated to be present during construction activities, with 100 daily trips occurring (50 inbound and 50 outbound). These trips would also mostly occur outside of the peak hours and, therefore, would not have a significant traffic impact at study intersections during the peak hours. Additionally, when compared to the 672 daily trips projected for the proposed Project, the construction daily trips are fewer and would not result in significant traffic impacts.

During construction, adequate parking for construction workers would be secured in local public parking facilities. Restrictions against workers parking in the public right-of-way in the vicinity of (or adjacent to) the Project Site will be identified as part of the Construction Management Plan. All construction materials storage and truck staging would be contained on-site or adjacent to the site on Broadway.

## **POTENTIAL IMPACTS ON ACCESS, TRANSIT, AND PARKING**

Construction activities are expected to be primarily contained within the Project Site boundaries. However, it is expected that construction fences may temporarily encroach into the public right-of-way (e.g., sidewalks and roadways) adjacent to the Project Site. Adjacent to the Project Site, the curb lane and sidewalk on Broadway would be used intermittently throughout the construction period for equipment staging, concrete pumping, deliveries, etc. Temporary traffic controls would be provided to direct traffic around any closures as required in the Construction

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Management Plan. No lanes are anticipated to be closed on Broadway during the construction period.

The use of the public right-of-way along Broadway would require temporary re-routing of pedestrian and bicycle traffic as the sidewalks fronting the Project Site would be closed. The Construction Management Plan would include measures to ensure pedestrian and bicycle safety along the affected sidewalks, bicycle facilities, and temporary walkways (e.g., use of directional signage, maintaining continuous and unobstructed pedestrian paths, and/or providing overhead covering).

There is no parking permitted along Broadway adjacent to the Project Site; however, a bus stop is located immediately in front of the site. That stop would need to be relocated temporarily. This would affect Metro Routes 28, 45, and 83, and LADOT DASH Lincoln Heights/Chinatown and DASH B. These details would be clarified and enforced through the Construction Management Plan to minimize temporary impacts.

## **CONSTRUCTION MANAGEMENT PLAN**

A detailed Construction Management Plan, including street closure information, a detour plan, haul routes, and a staging plan, would be prepared and submitted to the City for review and approval. 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 or equipment parking on adjacent streets.
- Temporary pedestrian, bicycle, and vehicular traffic controls (i.e., flag persons) during all construction activities adjacent to public rights-of-way to ensure traffic safety on public roadways. These controls shall include, but not be limited to, flag people trained in pedestrian and bicycle safety.

- 
- Temporary traffic control during all construction activities adjacent to public rights-of-way to improve traffic flow on public roadways (e.g., flag persons).
  - Scheduling of construction activities to reduce the effect on traffic flow on surrounding arterial streets.
  - Potential sequencing of construction activity to reduce the amount of construction-related traffic on arterial streets.
  - Containment of construction activity within the Project Site boundaries.
  - Prohibition of construction-related vehicles/equipment parking on surrounding public streets.
  - Safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers shall be implemented as appropriate.
  - Scheduling of construction-related deliveries, haul trips, etc., so as to occur outside the commuter peak hours to the extent feasible.

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## **Chapter 10**

### **Summary and Conclusions**

This study was undertaken to analyze the potential transportation impacts of the 942 N. Broadway Mixed-Use Development Project on the local street system. The following summarizes the results of this analysis:

- The Project proposes a mixed-use development consisting of 169 market rate apartment units, nine affordable housing units, 31,777 sf office space, 2,253 sf quality restaurant, 2,252 sf high-turnover (sit down) restaurant, and 532 sf of retail. Completion of the Project is anticipated in Year 2021. A single driveway for vehicular access to the Project Site would be provided along Broadway.
- After application of the appropriate trip reduction credits as allowed by LADOT, the Project is anticipated to generate 672 new daily trips, including 66 new trips during the morning peak hour and 59 new trips during the afternoon peak hour.
- The Project traffic was added to the existing circulation system to develop the Existing with Project traffic conditions. Based on LADOT significance criteria, the Project is not anticipated to result in significant impacts at any of the study intersections under Existing with Project Conditions or Future with Project Conditions.
- Analysis of potential impacts on the regional transportation system conducted in accordance with CMP guidelines determined that the Project would not have a significant impact on the regional freeway, arterial street system or transit system.
- Supplemental analyses along Caltrans facilities were not required as the Project did not meet the screening criteria.
- The Project will provide vehicular and bicycle parking in accordance with the LAMC.
- Although the Project construction would require the use of right of way along Broadway and the temporary relocation of a bus stop, no significant impacts are anticipated to occur due to construction of the Project.



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## References

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

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

*2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future*, Southern California Association of Governments, April 2012.

*City of Los Angeles Transportation Element of the General Plan*, Los Angeles Department of City Planning, 1999.

*First Amendment to the Agreement between LADOT and Caltrans District 7 on Freeway Impact Analysis Procedures*, State of California and City of Los Angeles, December 15, 2015.

*Guidelines for Implementation of the California Environmental Quality Act, Chapter 3, Title 14, California Code of Regulations*, California Natural Resources Agency, amended July 27, 2007.

*Highway Capacity Manual, 6<sup>th</sup> Edition*, Transportation Research Board, 2016.

*Local Development – Intergovernmental Review Program Interim Guide*, Caltrans, Approved September 2016.

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

*State of California Senate Bill 743*, Steinberg, 2013.

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

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

*Trip Generation, 10<sup>th</sup> Edition*, Institute of Transportation Engineers, 2017.

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

***Appendix A***

***Memorandum of Understanding***



## Transportation Impact Study Memorandum of Understanding (MOU)

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

### I. PROJECT INFORMATION

Project Name: 942 N Broadway

Project Address: 942 N Broadway

Project Description: The proposed project would replace an existing 16,965 sf of shopping center with a 27 story mixed use development containing 169 market rate dwelling units, 9 affordable dwelling units, 2,253 sf of quality restaurant space, 2,252 sf of high turnover restaurant, 532 sf of retail, and 31,777 sf of office space.

LADOT Project Case Number: \_\_\_\_\_ Project Site Plan attached? (Required)  Yes  No

### II. TRIP GENERATION

Geographic Distribution: N 26.00 % S 42.00 % E 17.00 % W 15.00 %

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

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

	Yes	No
Transit Usage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transportation Demand Management	<input type="checkbox"/>	<input type="checkbox"/>
Existing Active Land Use	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Previous Land Use	<input type="checkbox"/>	<input type="checkbox"/>
Internal Trip	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pass-By Trip	<input type="checkbox"/>	<input type="checkbox"/>

Source of Trip Generation Rate(s)?  ITE 9<sup>th</sup> Edition  Other: ITE 10th Edition

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

	<u>IN</u>	<u>OUT</u>	<u>TOTAL</u>
AM Trips	<u>29</u>	<u>40</u>	<u>69</u>
PM Trips	<u>32</u>	<u>28</u>	<u>60</u>

### III. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2021 Ambient or CMP Growth Rate: .27 % Per Yr.

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

Subject to Freeway Impact Analysis, in addition to CMP Analysis? (Freeway analysis screening filter must be included in this MOU; selecting “yes” implies that at least one criteria was satisfied)  Yes  No

Map of Study Intersections attached? (May be subject to LADOT revision after initial impact analysis)  Yes  No

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

**IV. CONTACT INFORMATION**

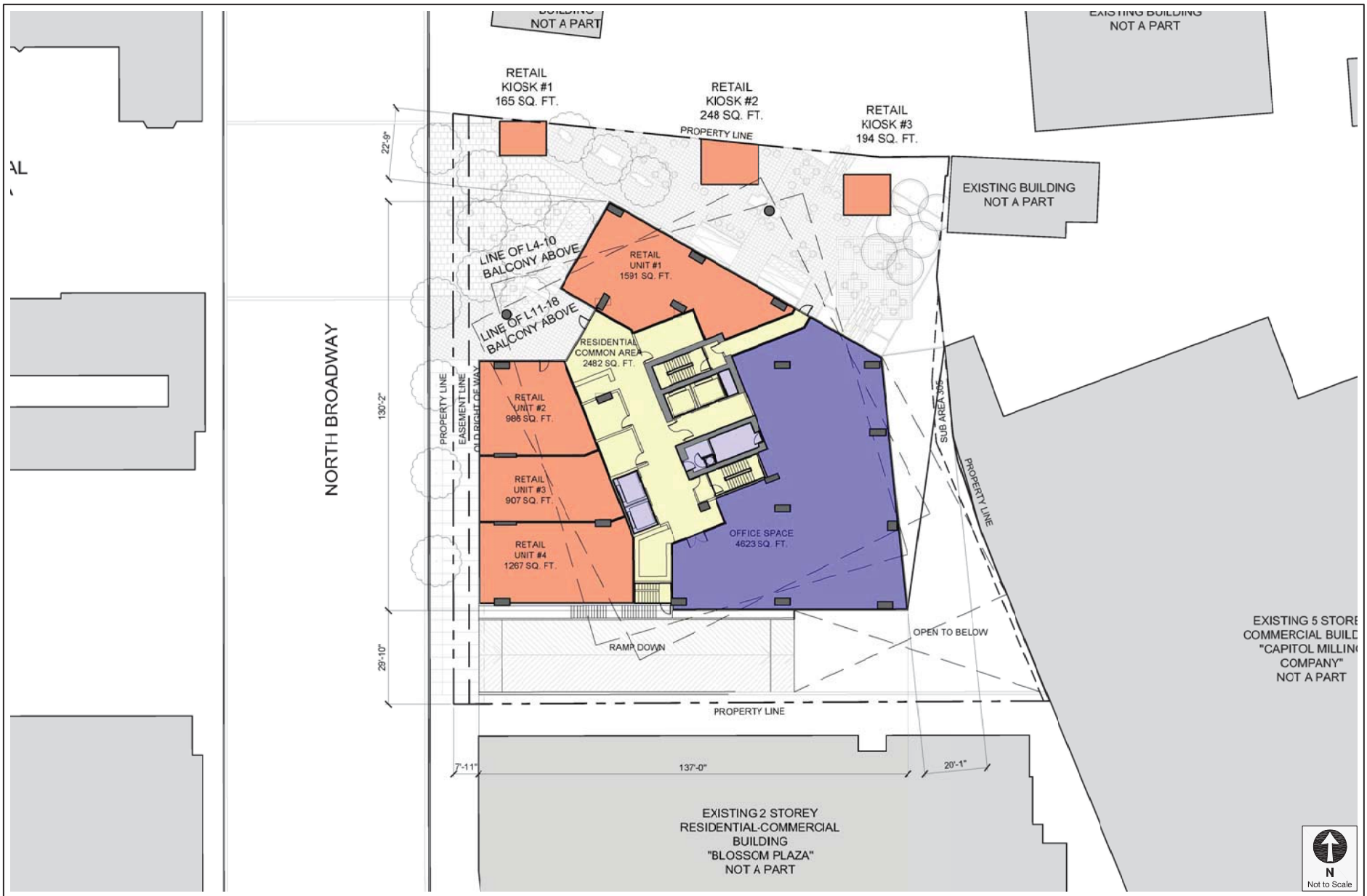
CONSULTANT

DEVELOPER

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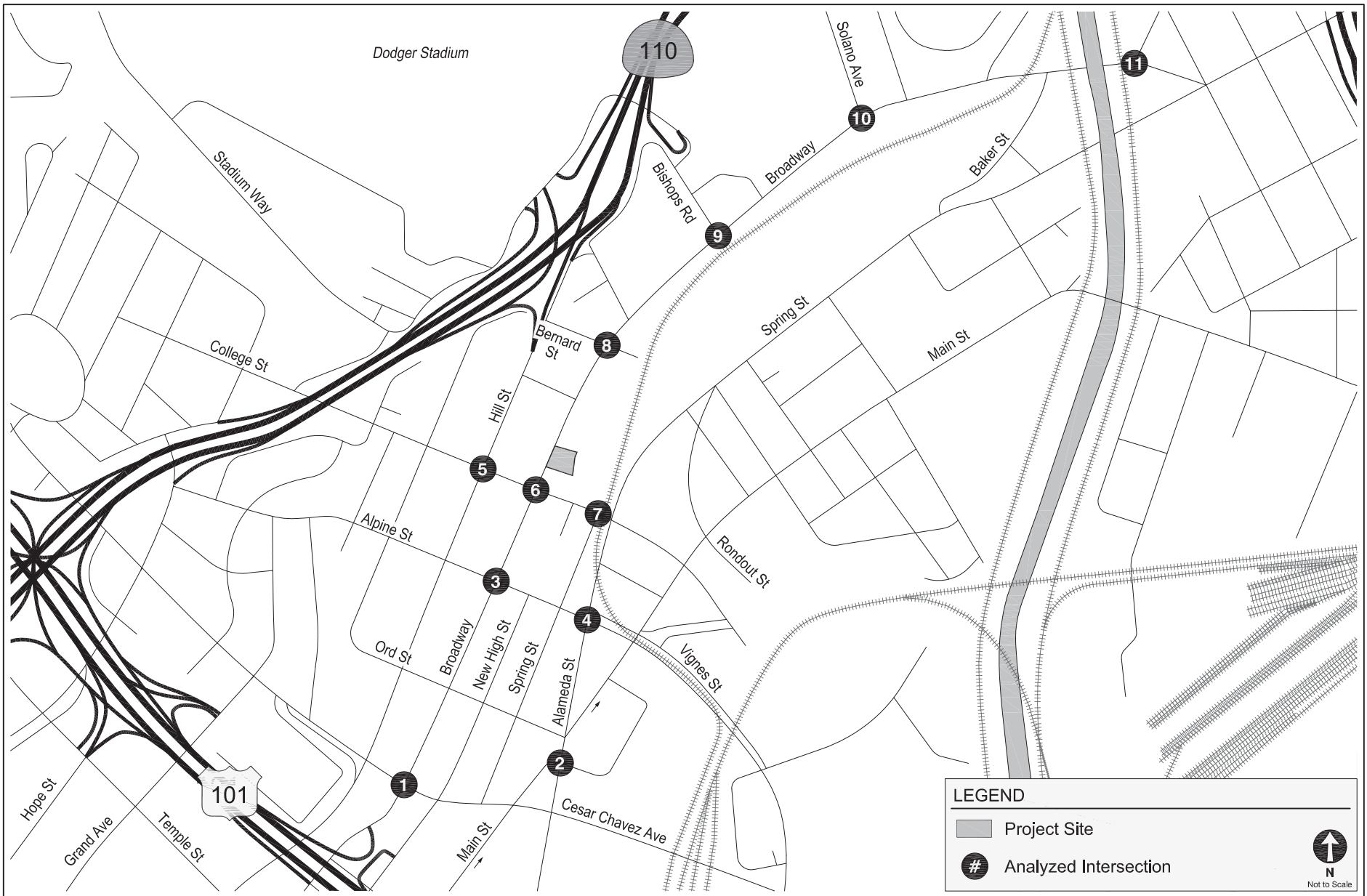
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Approved by: <u>Brian Hartshorn</u> <small>Digitally signed by Brian Hartshorn DN: cn=Brian Hartshorn, o=Gibson Transportation Consulting, Inc., ou email=bhartshorn@gibsontrans.com, c=US Date: 2018.08.08 13:29:21 -0700</small>	<u>X</u>	<u>8/9/18</u>	
Consultant's Representative	Date	LADOT Representative	Date



PROJECT SITE PLAN

FIGURE  
1



STUDY AREA & ANALYZED INTERSECTIONS

FIGURE  
2

**TABLE 1**  
**STUDY INTERSECTION LIST**

<b>No</b>	<b>North/South Street</b>	<b>East/West Street</b>
1.	Broadway	Cesar Chavez Avenue
2.	Alameda Street	Main Street/Bauchet Street
3.	Broadway	Alpine Street
4.	Alameda Street	Alpine Street
5.	Hill Street	College Street
6.	Broadway	College Street
7.	Spring Street	College Street
8.	Broadway	Bernard Street
9.	Broadway	Bishops Road
10.	Broadway	Solano Avenue
11.	Pasadena Avenue	Broadway

**TABLE 2  
PROJECT TRIP GENERATION ESTIMATES**

TRIP GENERATION RATES [a]									
Land Use	ITE Land Use	Rate	Daily	Morning Peak Hour			Afternoon Peak Hour		
				In	Out	Total	In	Out	Total
High-Rise Residential (Dense Multi-Use Urban)	222	per Dwelling Unit	2.07	12%	88%	0.21	70%	30%	0.19
Affordable Housing	[b]	per Dwelling Unit	4.08	40%	60%	0.50	55%	45%	0.34
Retail	820	per ksf	37.75	62%	38%	0.94	48%	52%	3.81
Quality Restaurant	931	per ksf	83.84	55%	45%	0.73	67%	33%	7.80
High-Turnover (Sit-Down) Restaurant	932	per ksf	112.18	55%	45%	9.94	62%	38%	9.77
General Office (Dense Multi-Use Urban)	710	per ksf	13.68	86%	14%	0.83	17%	83%	0.87
<b>MIXED USE INTERNAL CAPTURE CREDIT [c]</b>									
High-Rise Residential (Dense Multi-Use Urban)	220		0%	0%	0%		0%	0%	
Restaurant	932		18%	46%	27%		12%	21%	
General Office (Dense Multi-Use Urban)	710		0%	0%	0%		0%	0%	
Retail	820		0%	0%	0%		0%	0%	
<b>TRIP GENERATION ESTIMATES</b>									
Land Use	ITE Land Use	Size	Daily	Morning Peak Hour			Afternoon Peak Hour		
				In	Out	Total	In	Out	Total
<b>Proposed Project</b>									
High-Rise Residential (Dense Multi-Use Urban)	222	169 DU	350	4	31	35	22	10	32
Affordable Housing	[b]	9 DU	37	2	3	5	2	1	3
Quality Restaurant	931	2.253 ksf	189	1	1	2	12	6	18
Internal Capture Adjustment [c]			-10	0	0	0	-1	-1	-2
Transit/HOV Adjustment - 25% [d]			-45	0	-1	-1	-3	-1	-4
Pass-By Trip Adjustment - 10% [e]			-13	0	0	0	-1	0	-1
High-Turnover (Sit-Down) Restaurant	932	2.252 ksf	253	12	10	22	14	8	22
Internal Capture Adjustment [c]			-75	-6	-3	-9	-2	-2	-4
Transit/HOV Adjustment - 25% [d]			-45	-2	-1	-3	-3	-2	-5
Pass-By Trip Adjustment - 20% [e]			-27	-1	-1	-2	-2	-1	-3
General Office (Dense Multi-Use Urban)	710	31.777 ksf	435	22	4	26	5	23	28
Retail	820	0.532 ksf	20	1	0	1	1	1	2
Internal Capture Adjustment [c]			0	0	0	0	0	0	0
Transit/HOV Adjustment - 25% [d]			-5	0	0	0	0	-1	-1
Pass-By Trip Adjustment - 50% [e]			-8	-1	0	-1	-1	0	-1
<b>TOTAL PROPOSED PROJECT TRIPS</b>			<b>1,056</b>	<b>32</b>	<b>43</b>	<b>75</b>	<b>43</b>	<b>41</b>	<b>84</b>
<b>Existing to be Removed</b>									
Retail	820	16.965 ksf	640	10	6	16	31	34	65
Transit/HOV Adjustment - 25% [d]			-160	-3	-1	-4	-8	-8	-16
Pass-By Trip Adjustment - 50% [e]			-240	-4	-2	-6	-12	-13	-25
<b>TOTAL REMOVED PROJECT TRIPS</b>			<b>240</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>11</b>	<b>13</b>	<b>24</b>
<b>TOTAL - NET NEW PROJECT TRIPS</b>			<b>816</b>	<b>29</b>	<b>40</b>	<b>69</b>	<b>32</b>	<b>28</b>	<b>60</b>

**Notes:**

ksf: 1,000 square feet

[a] Source: *Trip Generation, 10th Edition*, Institute of Transportation Engineers, 2017.

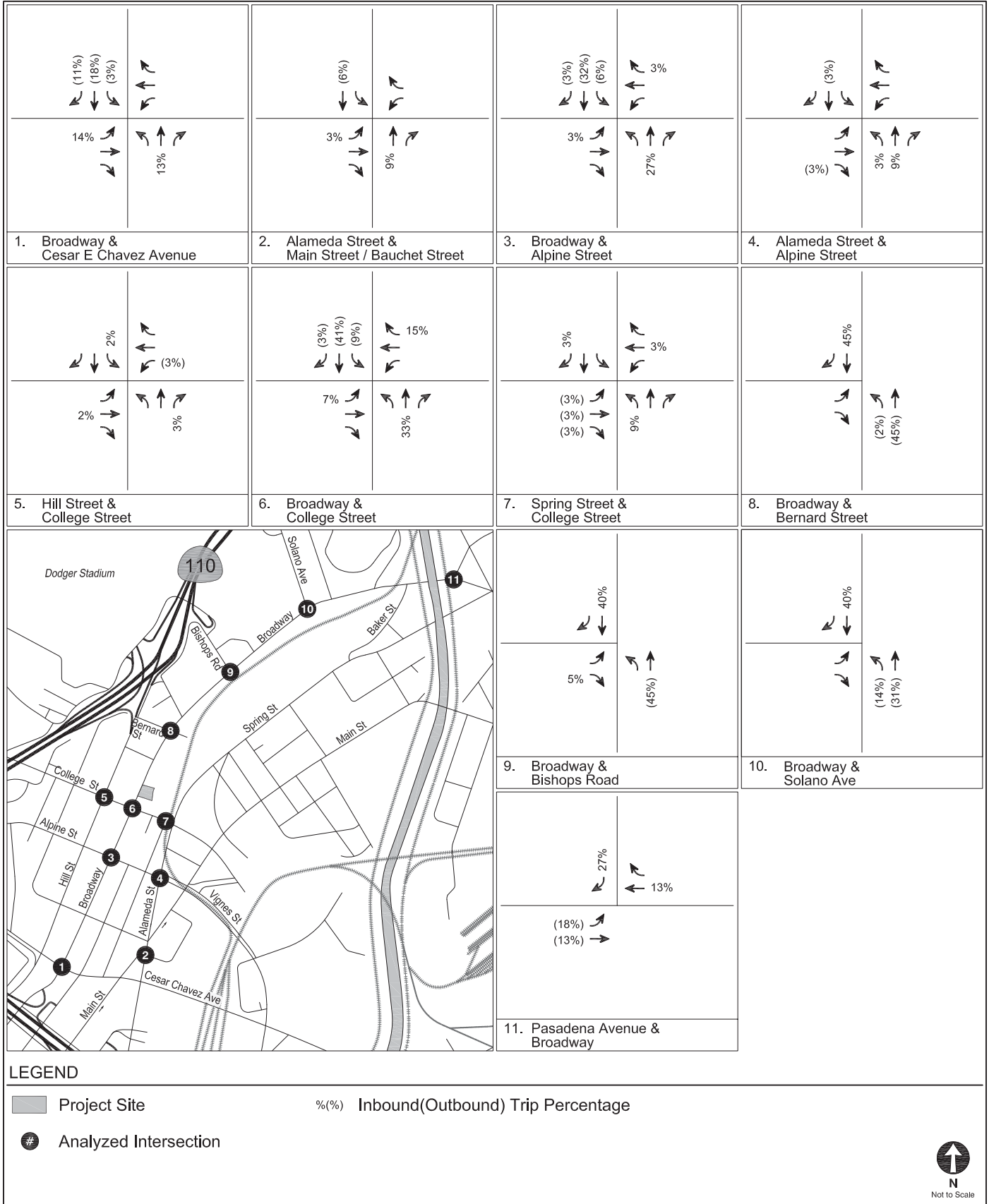
[b] Per LADOT's Transportation Impact Study Guidelines, Affordable Housing Units are eligible to use a modified trip generation rate based on the total number and type of dwelling units reserved as affordable.

[c] Internal capture adjustments account for person trips made between distinct land uses within a mixed-use development without using an off-site road system. Based on the NCHRP 8- Internal Trip Capture Estimation Tool (National Cooperative Highway Research Program Report 684 – Enhancing Internal Trip Capture Estimation for Mixed-Use Developments, Transportation Research Board and National Research Council, 2011), the Project trips can potentially be adjusted for over 25% internal capture adjustments.

[d] Per LADOT's *Transportation Impact Study Guidelines*, the Project Site is located within walking distance from the Metro Gold Line Chinatown station, therefore a transit reduction is applied to account for transit usage and walking visitor arrivals from the surrounding neighborhoods and adjacent commercial developments, and for arrivals via taxi and carpool services.

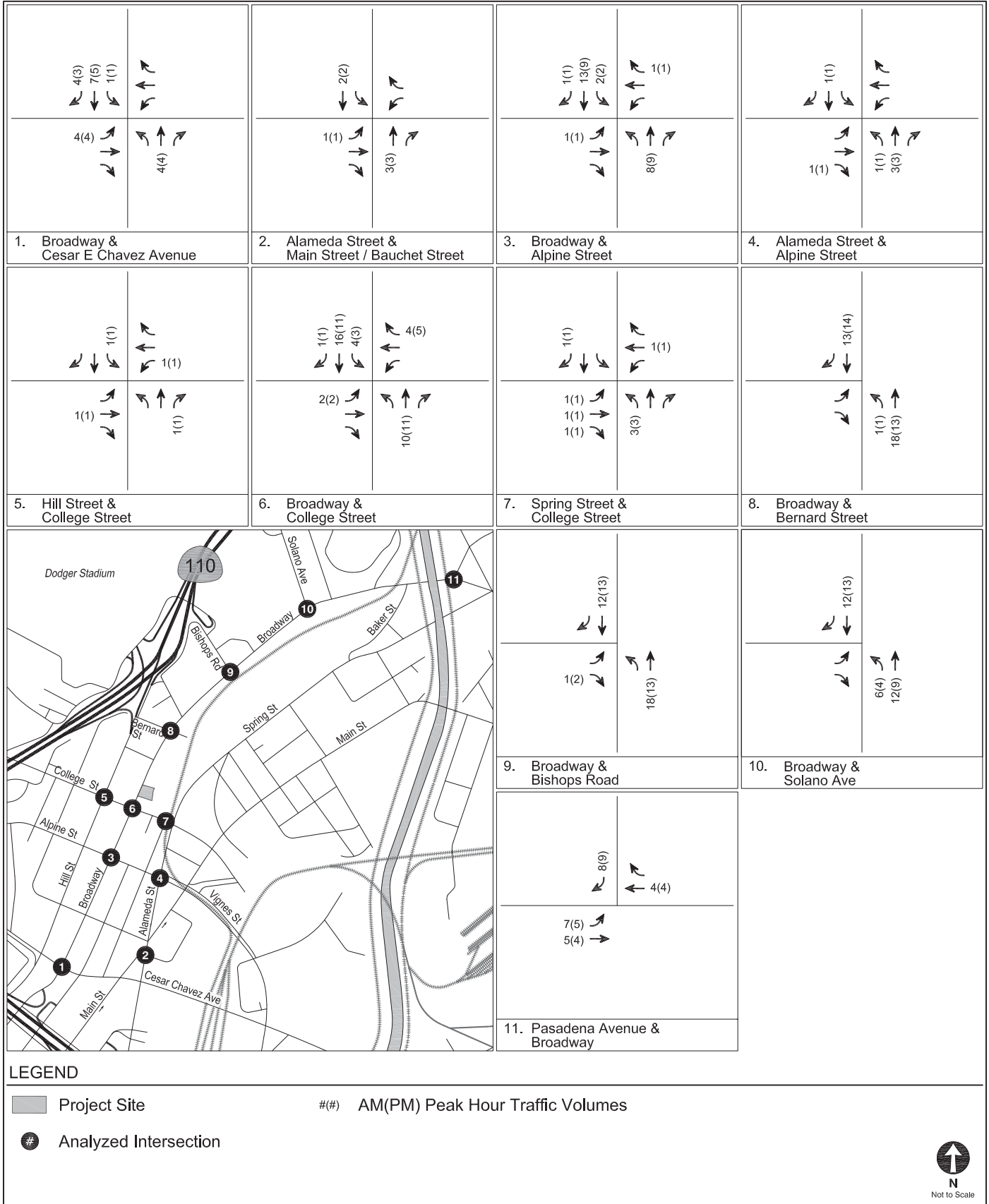
[e] Pass-by adjustments account for Project trips made as an intermediate stop on the way from an origin to a primary trip destination without route diversion.





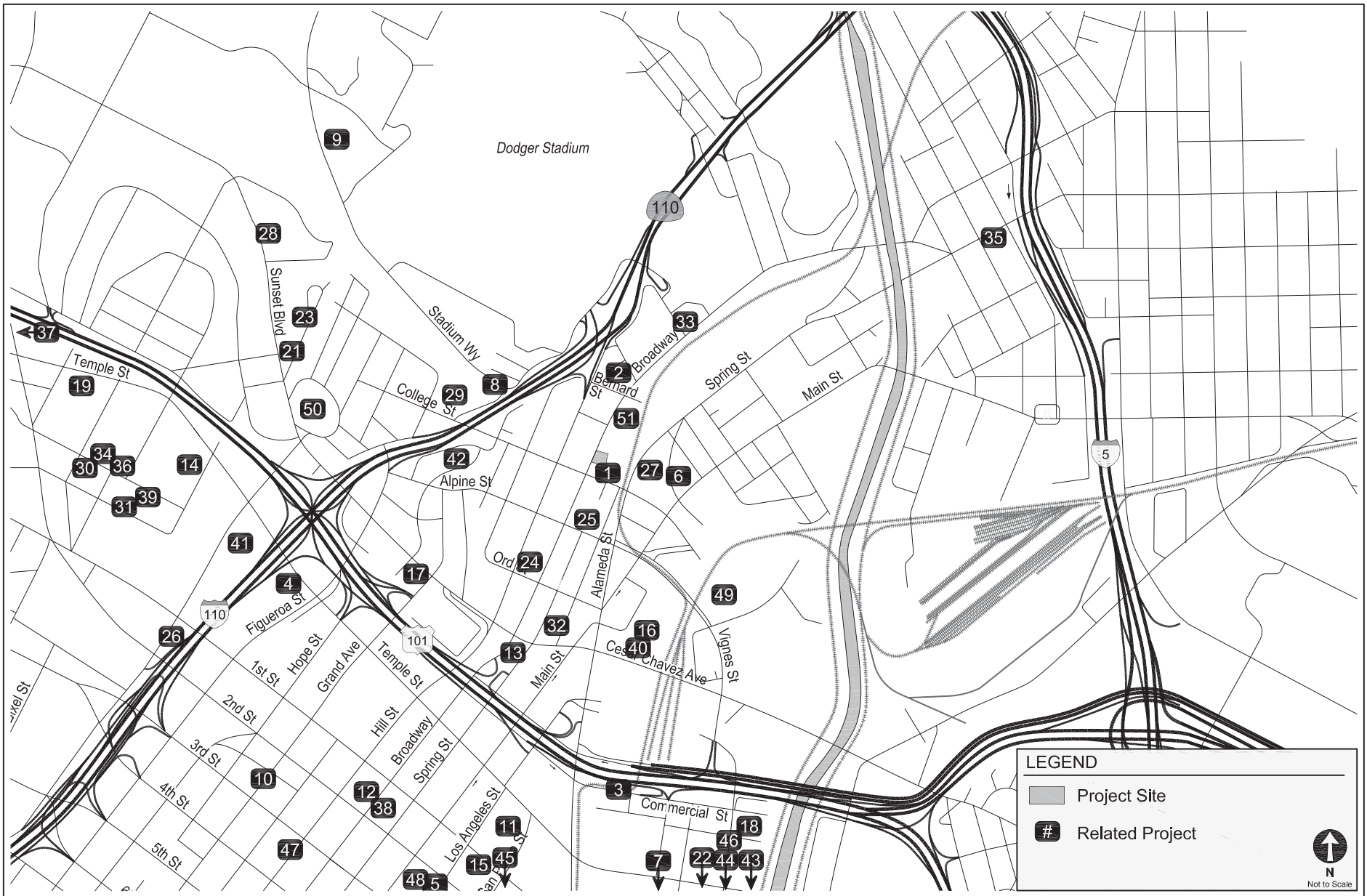
PROJECT TRIP DISTRIBUTION

FIGURE  
3



PROJECT-ONLY  
PEAK HOUR TRAFFIC VOLUMES

FIGURE  
4



LOCATIONS OF RELATED PROJECTS

FIGURE  
5

**TABLE 3  
RELATED PROJECTS**

No.	Project	Address	Use	Trip Generation [a]						
				Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1. [b]	Blossom Plaza	900 N Broadway	223 condominium units, 25 ksf retail, 15 ksf restaurant, 7 ksf cultural center	2,767	66	89	155	105	79	184
2.	Hotel	1011 North Broadway	92 hotel rooms	821	36	26	62	31	33	64
3.	Bus Maintenance & Inspection Facility	454 E Commercial Street	2 acre bus facility	0	22	8	30	9	1	10
4. [b]	Da Vinci Apartments	327 N Fremont Avenue	600 apartment units and 30 ksf retail	5,457	113	248	361	286	217	503
5. [b]	Vibiana Lofts (Mixed-Use)	225 S Los Angeles Street	300 condominium units and 3,400 sf retail	1,910	88	136	224	75	52	126
6.	1101 N Main Condos	1101 N Main Street	316 condominium units	1,102	(9)	80	71	75	12	87
7. [b]	Mixed-Use Project (Megatoys)	905 E 2nd Street	320 condominium units and 18,712 sf retail	1,207	(6)	70	64	69	23	92
8.	Stadium Way and Chavez Ravine Apartments	959 E Stadium Way	158 apartment units	1,051	16	65	81	64	34	98
9.	Barlow Hospital Replacement & Master Plan	2000 Stadium Way	888 condominium units, 56 hospital beds, and 15,000 sf retail	4,486	61	238	299	242	137	379
10. [c]	Grand Avenue Project	100 S Grand Avenue	968 condominium units, 242 apartment units, 225 room hotel, 152,150 sf retail, 650,000 sf office, 52,000 sf restaurant, 53,000 sf supermarket, 24,000 sf health club, and 250 seat event facility	17,652	842	446	1,288	841	1,129	1,970
11.	LA Civic Center Office	150 N Los Angeles Street	712,500 sf office, 35,000 sf retail, and 2,500 sf child care	13,534	930	118	1,048	435	942	1,377
12.	Retail/Restaurant	201 S Broadway	27,765 sf retail/restaurant	1,638	(40)	(41)	(81)	53	17	70
13.	La Plaza Cultura Village	527 N Spring Street	345 apartment units, 23,000 sf retail, 21,000 sf specialty retail, and 11,000 sf restaurant	3,585	49	118	167	189	131	320
14.	Residential	401 N Boylston Street	101 apartment units	561	8	35	43	34	18	52
15.	Apartments	118 S Astronaut es Onizuka Street	77 apartment units	97	(1)	20	19	19	6	25
16.	Alameda District Plan	Union Station Terminal Annex	22 residential units, 7,443,200 sf office, 645,000 sf retail, 750 hotel rooms, 20,000 sf restaurant, and 70,000 sf museum	25,312	862	527	1,389	734	1,042	1,776
17.	Mixed-Use	700 W Cesar Chavez Avenue	300 apartment units and 8,000 sf retail	1,511	7	89	96	99	54	153
18.	Metro Emergency Security Operations Center	410 N Center Street	110,000 sf office	1,165	87	0	87	0	79	79
19.	Apartments	340 N Patton Street	43 apartment units	267	4	16	20	17	8	25
20.	Mixed Use	167 W Avenue 34	410 apartment units, 10,000 sf retail, and 30,000 sf office space	2,128	29	132	161	133	66	199
21.	Sunset Everett Mixed-Use	1185 W Sunset Boulevard	214 apartment units, 6 single family homes, and 6 condominium units	2,474	70	131	201	105	70	175
22.	Mixed-Use (Private Club)	929 E 2nd Street	37,979 sf retail and 71,078 sf private club space	2,153	68	12	80	105	96	201
23.	Everett St. (1013) Project	1013 Everett Street	49 apartment units	310	5	19	24	19	9	28
24.	Hill Mixed Use Project	708 N Hill Street	162 apartment units and 5,000 sf retail	980	16	57	73	57	33	90
25.	Alpine Mixed-Use	211 W Alpine Street	122 apartment units, 7,500 sf retail	566	9	42	51	37	18	55
26.	Beaudry Ave & 2nd St Mixed-Use Project	130 S Beaudry Avenue	220 apartment units and 9,000 sf other	1,159	8	76	84	76	29	105
27.	College Station Mixed-Use	129 W College St, 924 N Spring St	770 apartment units and 51,390 sf commercial	6,583	169	290	461	307	201	509
28.	Apartments	1301 W Sunset Boulevard	45 apartment units	328	6	18	24	19	11	30

**Notes**

[a] Source: Related project information provided by LADOT, Department of City Planning, and recent studies in the area.

[b] Although construction of the related project may be complete, the project was not fully occupied at the time when traffic counts were conducted. Therefore, the related project was considered and listed to provide a more conservative analysis.

[c] The related project information based on the *Final Environmental Impact Report for the Grand Avenue Project* (Christopher A. Joseph & Associates, November 2006), and does not account for the completed phase on Parcels L and M-2.

TABLE 3 (CONTINUED)

## RELATED PROJECTS

No.	Project	Address	Use	Trip Generation [a]						
				Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
29.	Kaiser Medical Center	765 W College Street	100,000 sf medical office building	3,422	178	48	226	78	198	276
30.	1346 Court Apartments	1346 W Court Street	43 apartment units	286	4	18	22	17	10	27
31.	1301 Colton Apartments	1301 Colton Street	29 apartment units	193	3	12	15	12	6	18
32.	643-655 N Spring Street	643-655 N Spring Street	281 apartment units, 142 hotel rooms, 17,003 sf commercial, and 2,532 sf restaurant	2,723	61	122	183	138	91	229
33.	1201 N Broadway Mixed-Use	1201 N Broadway	118 apartment units and 9,000 sf office	569	(11)	43	32	41	5	46
34.	1316 Court & 1323 Colton Apartments	1316 W Court Street	60 apartment units	745	11	46	57	45	24	69
35.	Charter School	211 S Avenue 20	263 high school students and 74 middle school students	1	570	99	54	153	22	24
36.	1300 W Court St	1300 W Court Street	43 apartment units	286	4	18	22	17	10	27
37.	Tribune (LA Times) South Tower Project	222 W 2nd Street	107 condominium units, 534,044 sf office, and 7,200 sf retail	4,006	467	93	560	118	423	541
38.	Mixed-Use (Times Mirror Square)	100 S Broadway	1,127 apartment units, 285,088 sf office, 50,000 sf supermarket, and 75,589 sf restaurant	8,535	94	341	435	294	38	332
39.	Apartments	1246 W Court Street	54 apartment units	359	6	22	28	21	12	33
40.	Data Center	900 N Alameda Street	179,900 sf data center	178	8	8	16	3	13	16
41.	Ferrante	1000 W Temple Street	1,500 apartment units and 30,000 sf retail	11,256	170	622	792	658	383	1,041
42.	708 S New Depot Street Residential	708 S New Depot Street	33 apartment units	219	3	14	17	13	7	20
43.	234 N Center Street	234 N Center Street	430 apartment units, 8,742 sf retail	3,233	49	178	227	189	110	299
44.	220 N Center Street	220 N Center Street	430 apartment units and 8,742 sf retail	2,166	33	119	152	121	79	200
45.	Wakaba LA	232 E 2nd Street	240 apartment units and 16,000 sf retail	2,279	33	104	137	125	83	208
46.	Metro Emergency Security Operations Center	410 N Center Street	110,000 sf office	1,165	87	0	87	0	79	79
47.	Beacon Tower	343 S Hill Street	428 apartment units	2,846	44	174	218	172	93	265
48.	Budokan of Los Angeles	237 S Los Angeles Street	43,453 sf sports complex	1,869	79	50	129	161	98	259
49.	Men's Central Jail Replacement	441 E Bauchet Street	3,885 beds	242	0	9	9	0	29	29
50.	1111 Sunset Boulevard Mixed Use	1111 Sunest Boulevard	778 apartment units, 98 hotel rooms, 60,000 sf retail 35,000 sf retail, 48,000 sf office	10,585	292	386	678	445	361	806
51.	Elysian Park Lofts	1030 N Broadway	920 apartment units, 16,147 sf restaurant	4,660	91	263	354	272	151	423

Notes

- [a] Source: Related project information provided by LADOT, Department of City Planning, and recent studies in the area.
- [b] Although construction of the related project may be complete, the project was not fully occupied at the time when traffic counts were conducted. Therefore, the related project was considered and listed to provide a more conservative analysis.
- [c] The related project information based on the *Final Environmental Impact Report for the Grand Avenue Project* (Christopher A. Joseph & Associates, November 2006), and does not account for the completed phase on Parcels L and M-2.

**TABLE 4  
FREEWAY SEGMENT SCREENING PROCESS  
EXISTING OPERATING CONDITIONS (YEAR 2018)**

Freeway Segment	Direction	Number of Lanes [a]	Capacity [b]	Volume [c]	V/C Ratio	Project Traffic	Percent of Capacity	Meets Screening Criteria? [e]
<b>AM Peak Hour</b>								
SR 110 north of Solano Avenue	NB	3	6,000	4,631	0.77	6	0.1%	NO
	SB	3	6,000	7,122	1.19	2	0.0%	NO
SR 110 between Solano Avenue and Hill Street/Stadium Way	NB	3	6,000	4,680	0.78	1	0.0%	NO
	SB	3	6,000	7,199	1.20	2	0.0%	NO
SR 110 between Hill Street/Stadium Way and Figueroa Street/Sunset Boulevard	NB	3	6,000	4,418	0.74	1	0.0%	NO
	SB	3	6,000	6,116	1.02	0	0.0%	NO
SR 110 between Figueroa Street/Sunset Boulevard and US 101	NB	3	6,000	4,714	0.79	1	0.0%	NO
	SB	3	6,000	6,497	1.08	0	0.0%	NO
SR 110 south of US 101	NB	3	6,000	6,946	1.16	3	0.1%	NO
	SB	3	6,000	10,683	1.78	4	0.1%	NO
US-101 north of SR 110	NB	4	8,000	6,875	0.86	4	0.1%	NO
	SB	4	8,000	6,195	0.77	3	0.0%	NO
US-101 between SR 110 and Spring Street	NB	3	6,000	4,580	0.76	6	0.1%	NO
	SB	4	8,000	6,021	0.75	3	0.0%	NO
US-101 between Spring Street and Alameda Street	NB	4	8,000	6,094	0.76	0	0.0%	NO
	SB	4	8,000	6,708	0.84	0	0.0%	NO
US-101 between Alameda Street and Vignes Street	NB	4	8,000	5,603	0.70	1	0.0%	NO
	SB	4	8,000	6,168	0.77	2	0.0%	NO
US-101 between Vignes Street and I-10	NB	4	8,000	5,776	0.72	1	0.0%	NO
	SB	4	8,000	6,359	0.79	1	0.0%	NO
US-101 between I-10 and I-5	NB	2	4,000	5,892	1.47	1	0.0%	NO
	SB	3	6,000	6,486	1.08	1	0.0%	NO
I-5 north of SR 110	NB	4	8,000	5,512	0.69	3	0.0%	NO
	SB	4	8,000	6,372	0.80	4	0.1%	NO
I-5 between SR 110 and Broadway	NB	4	8,000	4,857	0.61	4	0.1%	NO
	SB	4	8,000	6,355	0.79	5	0.1%	NO
I-5 south of Broadway	NB	4	8,000	6,390	0.80	4	0.1%	NO
	SB	4	8,000	5,179	0.65	5	0.1%	NO
<b>PM Peak Hour</b>								
SR 110 north of Solano Avenue	NB	3	6,000	6,250	1.04	4	0.1%	NO
	SB	3	6,000	5,046	0.84	2	0.0%	NO
SR 110 between Solano Avenue and Hill Street/Stadium Way	NB	3	6,000	6,319	1.05	1	0.0%	NO
	SB	3	6,000	5,102	0.85	2	0.0%	NO
SR 110 between Hill Street/Stadium Way and Figueroa Street/Sunset Boulevard	NB	3	6,000	4,815	0.80	1	0.0%	NO
	SB	3	6,000	5,438	0.91	0	0.0%	NO
SR 110 between Figueroa Street/Sunset Boulevard and US 101	NB	3	6,000	5,116	0.85	1	0.0%	NO
	SB	3	6,000	5,778	0.96	0	0.0%	NO
SR 110 south of US 101	NB	3	6,000	9,376	1.56	4	0.1%	NO
	SB	3	6,000	7,570	1.26	3	0.1%	NO
US-101 north of SR 110	NB	4	8,000	6,208	0.78	3	0.0%	NO
	SB	4	8,000	6,892	0.86	4	0.1%	NO
US-101 between SR 110 and Spring Street	NB	3	6,000	5,378	0.90	3	0.1%	NO
	SB	4	8,000	6,569	0.82	4	0.1%	NO
US-101 between Spring Street and Alameda Street	NB	4	8,000	6,037	0.75	0	0.0%	NO
	SB	4	8,000	5,941	0.74	0	0.0%	NO
US-101 between Alameda Street and Vignes Street	NB	4	8,000	5,550	0.69	1	0.0%	NO
	SB	4	8,000	5,462	0.68	2	0.0%	NO
US-101 between Vignes Street and I-10	NB	4	8,000	5,722	0.72	1	0.0%	NO
	SB	4	8,000	5,631	0.70	1	0.0%	NO
US-101 between I-10 and I-5	NB	2	4,000	5,836	1.46	1	0.0%	NO
	SB	3	6,000	5,744	0.96	1	0.0%	NO
I-5 north of SR 110	NB	4	8,000	5,512	0.69	3	0.0%	NO
	SB	4	8,000	7,035	0.88	3	0.0%	NO
I-5 between SR 110 and Broadway	NB	4	8,000	4,961	0.62	4	0.1%	NO
	SB	4	8,000	6,448	0.81	4	0.1%	NO
I-5 south of Broadway	NB	4	8,000	6,480	0.81	4	0.1%	NO
	SB	4	8,000	5,673	0.71	4	0.1%	NO

**Notes**

- [a] Auxiliary lanes and high-occupancy vehicle (carpool) lanes are not counted toward number of lanes.
- [b] Lane capacity is 2,000 vehicles per hour per lane based on specifications in the screening criteria.
- [c] Existing traffic volume based on available typical weekday peak hour data for March 2017 from Caltrans' *Performance Measurement System (PeMS)*. An ambient growth rate of 1% per year was applied to the year 2015 traffic volume data from recent Caltrans published volume data (*2016 Traffic Volumes on California State Highways*, Caltrans, 2017) to reflect Existing year 2018 traffic conditions.
- [d] Based on the *First Amendment to the Agreement between LADOT and Caltrans District 7 on Freeway Impact Analysis Procedures* (Caltrans & LADOT, December 2015), further analysis of Caltrans facilities would be required if the freeway segment operates at LOS D and the project's peak hour trips would result in a 2% or more increase to the freeway mainline capacity, or if the freeway segment operates at LOS E or F and the project's peak hour trips would result in a 1% or more increase to the freeway mainline capacity. The Project would not result in a 1% or more increase to the freeway mainline capacity, thus, the screening criteria would not be met regardless of the freeway mainline LOS.

**TABLE 5  
 FREEWAY OFF-RAMP SCREENING PROCESS  
 EXISTING OPERATING CONDITIONS (YEAR 2018)**

Freeway Off-ramp	Peak Hour	Number of Lanes	Capacity [a]	Volume [b]	V/C Ratio	Project Traffic	Percent of Capacity	Meets Screening Criteria? [c]
SR 110 Northbound Off-ramp to Solano Avenue	AM	1	850	125	0.15	6	0.7%	NO
	PM	1	850	122	0.14	4	0.5%	NO
SR 110 Northbound Off-ramp to Hill Street	AM	1	850	144	0.17	1	0.1%	NO
	PM	1	850	141	0.17	1	0.1%	NO
SR 110 Southbound Off-ramp to Stadium Way	AM	1	850	138	0.16	2	0.2%	NO
	PM	1	850	135	0.16	3	0.4%	NO
US 101 Northbound Off-ramp to Vignes Street	AM	1	850	395	0.46	1	0.1%	NO
	PM	1	850	370	0.44	1	0.1%	NO
US 101 Northbound Off-ramp to Alameda Street	AM	1	850	924	1.09	1	0.1%	NO
	PM	1	850	864	1.02	1	0.1%	NO
US 101 Southbound Off-ramp to Broadway	AM	2	1,700	439	0.26	3	0.2%	NO
	PM	2	1,700	411	0.24	3	0.2%	NO
I-5 Southbound Off-ramp to Pasadena Avenue	AM	1	850	744	0.88	6	0.7%	NO
	PM	1	850	643	0.76	6	0.7%	NO
I-5 Northbound Off-ramp to Broadway	AM	2	1,700	602	0.35	4	0.2%	NO
	PM	2	1,700	521	0.31	4	0.2%	NO

**Notes**

[a] Off-ramp lane capacity is 850 vehicles per hour per lane based on specifications in the screening criteria.

[b] An ambient growth rate of 1% per year was applied to existing traffic volume based on traffic counts conducted in 2015 and 2016 and traffic volume data from *2016 Ramp Volumes on the California State Freeway System* (Caltrans, 2017) to reflect Existing year 2018 traffic conditions.

[c] Based on the *First Amendment to the Agreement between LADOT and Caltrans District 7 on Freeway Impact Analysis Procedures* (Caltrans & LADOT, December 2015), further analysis of Caltrans facilities would be required if the freeway off-ramp operates at LOS D and the project's peak hour trips would result in a 2% or more increase to the freeway off-ramp capacity, or if the freeway off-ramp operates at LOS E or F and the project's peak hour trips would result in a 1% or more increase to the freeway off-ramp capacity. To provide a conservative analysis, if the Project would result in a 1% or more increase to the freeway off-ramp capacity, the screening criteria would be met regardless of the freeway off-ramp LOS.

NCHRP 8-51 Internal Trip Capture Estimation Tool						
Project Name:	942 N Broadway			Organization:	GTC	
Project Location:	942 N Broadway			Performed By:		
Scenario Description:				Date:		
Analysis Year:				Checked By:		
Analysis Period:	AM Street Peak Hour			Date:	8/8/2018	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs <sup>1</sup>	Quantity	Units	Total	Entering	Exiting
Office				26	22	4
Retail				1	1	0
Restaurant				24	13	11
Cinema/Entertainment				0		
Residential				35	4	31
Hotel				0		
All Other Land Uses <sup>2</sup>				5	2	3
<b>Total</b>				<b>91</b>	<b>42</b>	<b>49</b>

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail	1.00	25%		1.00	25%	
Restaurant	1.00	25%		1.00	25%	
Cinema/Entertainment						
Residential	1.00			1.00		
Hotel						
All Other Land Uses <sup>2</sup>	1.00			1.00		

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	3	0	0	0
Retail	0		0	0	0	0
Restaurant	3	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	3	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	91	42	49
Internal Capture Percentage	22%	24%	20%
External Vehicle-Trips <sup>3</sup>	67	30	37
External Transit-Trips <sup>4</sup>	4	2	2
External Non-Motorized Trips <sup>4</sup>	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	18%	75%
Retail	0%	N/A
Restaurant	46%	27%
Cinema/Entertainment	N/A	N/A
Residential	0%	13%
Hotel	N/A	N/A

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

<sup>3</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

<sup>4</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

*Estimation Tool Developed by the Texas Transportation Institute*



<b>Project Name:</b>	942 N Broadway
<b>Analysis Period:</b>	AM Street Peak Hour

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	22	22	1.00	4	4
Retail	1.00	1	1	1.00	0	0
Restaurant	1.00	13	13	1.00	11	11
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	4	4	1.00	31	31
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		1	3	0	0	0
Retail	0		0	0	0	0
Restaurant	3	2		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	6	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	3	0	0	0
Retail	1		7	0	0	0
Restaurant	3	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	3	0		0
Hotel	1	0	1	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	4	18	22	18	0	0
Retail	0	1	1	1	0	0
Restaurant	6	7	13	5	2	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	4	4	4	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses <sup>3</sup>	0	2	2	2	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	3	1	4	1	0	0
Retail	0	0	0	0	0	0
Restaurant	3	8	11	6	2	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	4	27	31	27	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses <sup>3</sup>	0	3	3	3	0	0

<sup>1</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A  
<sup>2</sup>Person-Trips  
<sup>3</sup>Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator  
\*Indicates computation that has been rounded to the nearest whole number.

NCHRP 8-51 Internal Trip Capture Estimation Tool			
Project Name:	942 N Broadway	Organization:	GTC
Project Location:	942 N Broadway	Performed By:	
Scenario Description:		Date:	
Analysis Year:		Checked By:	
Analysis Period:	PM Street Peak Hour	Date:	8/8/2018

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs <sup>1</sup>	Quantity	Units	Total	Entering	Exiting
Office				28	5	23
Retail				2	1	1
Restaurant				40	26	14
Cinema/Entertainment				0		
Residential				32	22	10
Hotel				0		
All Other Land Uses <sup>2</sup>				3	2	1
<b>Total</b>				<b>105</b>	<b>56</b>	<b>49</b>

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail	1.00	25%		1.00	25%	
Restaurant	1.00	25%		1.00	25%	
Cinema/Entertainment						
Residential	1.00			1.00		
Hotel						
All Other Land Uses <sup>2</sup>	1.00			1.00		

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	1	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	3	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	2	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	105	56	49
Internal Capture Percentage	11%	11%	12%
External Vehicle-Trips <sup>3</sup>	84	44	40
External Transit-Trips <sup>4</sup>	9	6	3
External Non-Motorized Trips <sup>4</sup>	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	0%	4%
Retail	0%	0%
Restaurant	12%	21%
Cinema/Entertainment	N/A	N/A
Residential	14%	20%
Hotel	N/A	N/A

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

<sup>3</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

<sup>4</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

*Estimation Tool Developed by the Texas Transportation Institute*

<b>Project Name:</b>	942 N Broadway
<b>Analysis Period:</b>	PM Street Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	5	5	1.00	23	23
Retail	1.00	1	1	1.00	1	1
Restaurant	1.00	26	26	1.00	14	14
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	22	22	1.00	10	10
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		5	1	0	0	0
Retail	0		0	0	0	0
Restaurant	0	6		1	3	1
Cinema/Entertainment	0	0	0		0	0
Residential	0	4	2	0		0
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	1	0	1	0
Retail	2		8	0	10	0
Restaurant	2	1		0	4	0
Cinema/Entertainment	0	0	1		1	0
Residential	3	0	4	0		0
Hotel	0	0	1	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	0	5	5	5	0	0
Retail	0	1	1	1	0	0
Restaurant	3	23	26	17	6	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	3	19	22	19	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses <sup>3</sup>	0	2	2	2	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	1	22	23	22	0	0
Retail	0	1	1	1	0	0
Restaurant	3	11	14	8	3	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	2	8	10	8	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses <sup>3</sup>	0	1	1	1	0	0

<sup>1</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

<sup>2</sup>Person-Trips

<sup>3</sup>Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

\*Indicates computation that has been rounded to the nearest whole number.

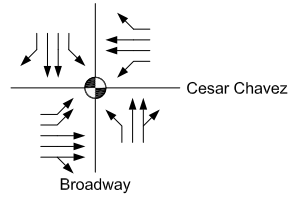
***Appendix B***

***Intersection Lane Configurations***

**EXISTING CONDITIONS  
(YEAR 2018)**

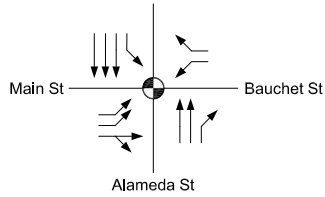
**FUTURE CONDITIONS  
(YEAR 2021)**

1. Broadway & Cesar Chavez Avenue



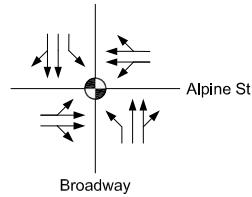
Same as Existing Conditions

2. Alameda Street & Main Street / Bauchet Street



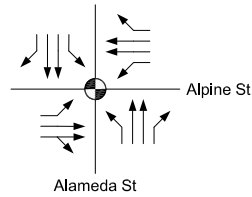
Same as Existing Conditions

3. Broadway & Alpine Street



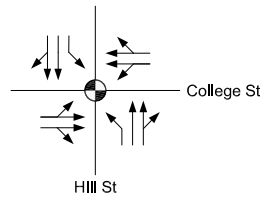
Same as Existing Conditions

4. Alameda Street & Alpine Street



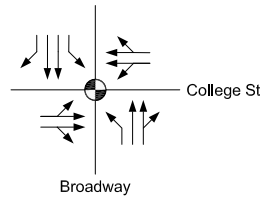
Same as Existing Conditions

5. Hill Street & College Street



Same as Existing Conditions

6. Broadway & College Street

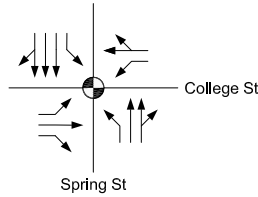


Same as Existing Conditions

**EXISTING CONDITIONS  
(YEAR 2018)**

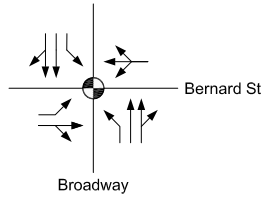
**FUTURE CONDITIONS  
(YEAR 2021)**

7. Spring Street & College Street



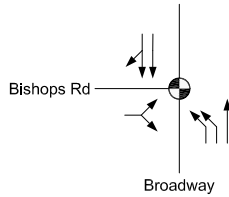
Same as Existing Conditions

8. Broadway & Bernard Street



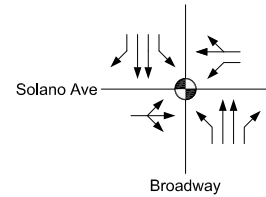
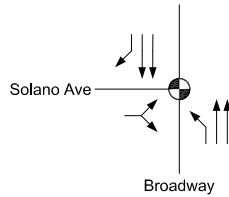
Same as Existing Conditions

9. Broadway & Bishops Road



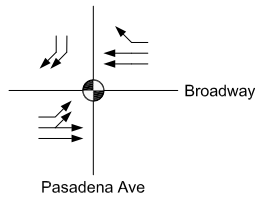
Same as Existing Conditions

10. Broadway & Solano Avenue



Same as Existing Conditions

11. Pasadena Avenue & Broadway



***Appendix C***  
***Traffic Counts***

## Turning Movement Count Report AM

Location ID: 1  
 North/South: Broadway  
 East/West: Cesar Chavez Avenue

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	79	183	6	7	336	45	7	52	18	8	115	15	871
7:15	90	208	5	11	357	27	19	56	15	18	127	25	958
7:30	117	201	6	14	351	21	17	56	18	24	136	54	1015
7:45	81	195	4	19	319	34	11	88	20	41	154	47	1013
8:00	90	196	5	15	314	35	12	58	19	25	127	27	923
8:15	89	211	7	15	298	49	12	53	19	17	148	27	945
8:30	86	224	2	11	331	29	18	43	16	14	128	25	927
8:45	83	228	3	12	329	42	18	62	5	26	153	27	988
9:00	78	222	8	10	282	45	15	57	11	18	150	31	927
9:15	86	213	9	14	317	26	20	53	12	12	139	26	927
9:30	78	152	9	12	334	34	25	67	19	16	123	21	890
9:45	63	148	26	18	311	20	19	57	15	18	117	23	835

Total Volume:	1020	2381	90	158	3879	407	193	702	187	237	1617	348	11219
Approach %	29%	68%	3%	4%	87%	9%	18%	65%	17%	11%	73%	16%	

Peak Hr Begin:	7:15												
PHV	378	800	20	59	1341	117	59	258	72	108	544	153	3909
PHF	0.924			0.960			0.817			0.832			0.963



# Turning Movement Count Report PM

Location ID: 1  
 North/South: Broadway  
 East/West: Cesar Chavez Avenue

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	31	77	12	33	200	33	20	104	22	6	118	41	697
15:15	44	83	19	35	214	31	21	121	16	24	224	49	881
15:30	32	84	12	43	236	22	23	144	14	20	196	66	892
15:45	45	76	11	63	278	29	27	156	25	11	224	62	1007
16:00	29	124	10	80	257	16	19	185	16	13	217	39	1005
16:15	45	96	12	93	272	13	23	188	3	7	252	64	1068
16:30	52	116	10	83	276	23	17	185	6	11	273	52	1104
16:45	65	93	11	60	264	24	17	192	5	9	245	63	1048
17:00	54	111	11	36	290	24	29	201	4	12	242	64	1078
17:15	64	77	22	45	275	23	23	208	10	4	235	74	1060
17:30	43	103	12	37	279	14	22	198	6	9	258	70	1051
17:45	54	100	11	38	304	16	14	209	7	3	247	54	1057

Total Volume:	558	1140	153	646	3145	268	255	2091	134	129	2731	698	11948
Approach %	30%	62%	8%	16%	77%	7%	10%	84%	5%	4%	77%	20%	

Peak Hr Begin:	16:15												
PHV	216	416	44	272	1102	84	86	766	18	39	1012	243	4298
PHF	0.949			0.954			0.929			0.963			0.973

## Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	6	0	19	0	20	0	6	0
7:15	3	0	17	0	32	0	9	0
7:30	0	0	21	2	39	1	17	0
7:45	3	0	11	1	26	1	9	0
8:00	7	1	10	2	17	0	5	1
8:15	1	1	16	1	11	0	4	0
8:30	1	0	19	0	8	0	10	0
8:45	5	0	13	1	7	0	7	0
9:00	6	0	12	2	19	0	5	0
9:15	3	0	9	0	12	0	16	0
9:30	3	1	9	3	24	0	10	0
9:45	1	0	16	4	31	0	11	0

	North		East		South		West	
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	2	1	18	1	8	0	6	0
15:15	5	0	21	1	71	0	32	0
15:30	1	2	15	1	31	0	12	1
15:45	4	0	16	0	16	0	24	1
16:00	3	0	13	2	15	1	10	0
16:15	7	1	16	2	15	0	7	0
16:30	5	0	15	0	16	1	11	0
16:45	1	2	11	1	14	1	5	1
17:00	4	1	11	1	15	1	9	0
17:15	1	0	11	1	9	1	8	1
17:30	3	0	10	0	15	0	12	0
17:45	1	1	12	0	3	0	7	0

## Turning Movement Count Report AM

Location ID: 2  
 North/South: Alameda Street  
 East/West: Main Street

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	0	352	6	0	0	5	8	82	0	2	2	39	496
7:15	0	312	7	3	0	1	2	109	0	3	7	27	471
7:30	0	329	6	2	0	3	5	106	1	0	8	30	490
7:45	0	320	7	1	0	2	3	112	0	4	6	39	494
8:00	0	382	7	1	0	2	6	90	0	3	3	24	518
8:15	0	316	13	7	0	5	7	99	0	1	7	39	494
8:30	0	286	4	4	0	8	16	106	0	3	9	46	482
8:45	0	343	17	1	0	6	14	96	0	2	11	47	537
9:00	0	266	24	7	0	4	10	99	1	3	14	33	461
9:15	0	211	23	6	0	11	16	140	0	3	14	39	463
9:30	0	234	22	3	0	6	15	141	0	2	13	52	488
9:45	0	241	16	13	0	7	24	134	0	1	14	51	501

Total Volume:	0	3592	152	48	0	60	126	1314	2	27	108	466	5895
Approach %	0%	96%	4%	44%	0%	56%	9%	91%	0%	4%	18%	78%	

Peak Hr Begin:	8:00												
PHV	0	1327	41	13	0	21	43	391	0	9	30	156	2031
PHF	0.879			0.708			0.889			0.813			0.946

# Turning Movement Count Report PM

Location ID: 2  
 North/South: Alameda Street  
 East/West: Main Street

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	0	193	2	11	0	35	12	155	0	10	3	80	501
15:15	0	195	6	8	0	15	2	202	0	5	5	75	513
15:30	0	205	6	24	0	26	6	186	0	4	3	96	556
15:45	0	186	3	9	0	22	5	183	2	9	4	98	521
16:00	0	164	6	12	0	28	5	193	0	8	6	117	539
16:15	0	151	8	11	0	23	4	207	0	5	3	136	548
16:30	0	183	8	18	0	32	3	195	0	9	7	213	668
16:45	0	184	3	18	0	17	6	232	0	7	3	213	683
17:00	0	206	1	13	0	17	2	210	0	4	5	175	633
17:15	0	170	2	20	0	10	3	178	0	5	1	175	564
17:30	0	169	3	14	0	11	5	193	0	3	12	225	635
17:45	0	129	2	9	0	11	3	245	0	9	5	183	596

Total Volume:	0	2135	50	167	0	247	56	2379	2	78	57	1786	6957
Approach %	0%	98%	2%	40%	0%	60%	2%	98%	0%	4%	3%	93%	

Peak Hr Begin:	16:30												
PHV	0	743	14	69	0	76	14	815	0	25	16	776	2548
PHF	0.914			0.725			0.871			0.892			0.933

## Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	3	0	2	0	10	1
7:15	0	0	11	1	4	0	11	1
7:30	0	0	7	0	7	0	10	0
7:45	0	0	13	1	5	0	5	0
8:00	0	0	4	1	1	0	9	1
8:15	0	0	9	2	8	1	7	0
8:30	0	0	14	1	6	0	15	1
8:45	0	0	14	1	7	1	14	0
9:00	0	0	6	0	12	0	16	2
9:15	0	0	5	0	6	0	19	0
9:30	0	0	12	1	4	1	15	1
9:45	0	0	17	1	11	0	23	1

Leg:	North		East		South		West	
	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	0	0	6	3	10	0	31	0
15:15	0	0	6	1	4	0	18	0
15:30	1	0	16	0	6	0	14	0
15:45	0	0	7	1	15	0	18	0
16:00	0	0	8	2	14	0	21	14
16:15	0	0	6	0	3	0	16	0
16:30	0	0	19	1	4	0	18	0
16:45	0	0	1	2	3	0	5	0
17:00	0	0	6	0	2	0	5	0
17:15	0	0	4	1	3	0	16	0
17:30	0	0	9	4	3	0	9	1
17:45	0	0	4	1	3	0	7	0

## Turning Movement Count Report AM

Location ID: 3  
 North/South: Alameda Street  
 East/West: Vignes Street

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	56	235	32	26	202	11	5	57	5	11	26	4	670
7:15	65	227	39	35	228	6	1	70	7	4	23	6	711
7:30	55	247	37	50	259	11	2	61	13	9	40	9	793
7:45	57	211	33	43	226	14	4	66	6	16	39	5	720
8:00	41	248	35	41	183	22	1	58	15	10	33	9	696
8:15	44	218	50	34	216	17	4	61	10	15	27	14	710
8:30	35	227	39	50	233	14	3	79	9	14	31	6	740
8:45	61	221	37	45	188	14	4	75	5	23	21	9	703
9:00	37	172	28	45	231	19	1	59	8	18	38	6	662
9:15	19	166	29	32	191	14	4	78	13	9	27	12	594
9:30	32	141	36	38	141	22	4	81	12	16	31	13	567
9:45	15	139	28	41	137	20	4	85	11	17	33	16	546

Total Volume:	517	2452	423	480	2435	184	37	830	114	162	369	109	8112
Approach %	15%	72%	12%	15%	79%	6%	4%	85%	12%	25%	58%	17%	

Peak Hr Begin:	7:15												
PHV	218	933	144	169	896	53	8	255	41	39	135	29	2920
PHF	0.955			0.873			0.974			0.846			0.921

# Turning Movement Count Report PM

Location ID: 3  
 North/South: Alameda Street  
 East/West: Vignes Street

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	15	81	16	55	81	10	2	131	19	13	43	7	473
15:15	10	69	25	48	83	15	11	165	10	22	50	16	524
15:30	11	88	16	81	114	16	3	190	21	20	54	12	626
15:45	11	100	15	72	118	6	8	150	38	14	50	17	599
16:00	6	69	16	73	139	15	5	138	36	14	52	20	583
16:15	16	70	14	85	86	9	8	176	23	19	49	17	572
16:30	7	99	24	71	140	8	15	188	43	9	67	23	694
16:45	9	89	15	83	103	9	5	237	18	9	73	21	671
17:00	18	84	22	63	140	17	12	192	26	14	84	26	698
17:15	10	72	20	78	161	9	7	172	45	19	82	20	695
17:30	2	66	12	67	125	13	10	196	36	15	89	16	647
17:45	9	51	16	84	133	5	10	193	52	11	72	15	651

Total Volume:	124	938	211	860	1423	132	96	2128	367	179	765	210	7433
Approach %	10%	74%	17%	36%	59%	5%	4%	82%	14%	16%	66%	18%	

Peak Hr Begin:	16:30												
PHV	44	344	81	295	544	43	39	789	132	51	306	90	2758
PHF	0.902			0.889			0.923			0.901			0.988

## Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	5	0	3	0	2	0	1	1
7:15	2	0	3	0	2	0	5	0
7:30	2	0	3	0	4	0	3	2
7:45	4	0	4	1	3	0	4	0
8:00	2	0	9	0	0	0	1	0
8:15	2	0	8	0	1	0	4	0
8:30	4	1	2	0	2	0	5	0
8:45	2	0	5	0	1	0	1	0
9:00	6	0	6	0	4	0	4	1
9:15	7	0	0	0	6	0	6	1
9:30	1	0	10	0	2	0	3	0
9:45	4	0	5	0	4	0	2	2

Leg:	North		East		South		West	
	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	3	0	2	0	2	0	4	0
15:15	1	0	3	1	2	0	5	1
15:30	4	0	4	0	1	0	6	0
15:45	5	0	0	0	4	0	7	3
16:00	3	0	2	0	1	0	6	1
16:15	3	0	12	0	1	0	6	2
16:30	4	0	6	0	2	0	13	1
16:45	4	0	5	0	2	0	4	0
17:00	2	0	6	1	1	0	6	0
17:15	5	1	2	0	1	0	5	1
17:30	3	0	1	1	0	0	4	2
17:45	0	0	2	1	2	1	9	0



## Turning Movement Count Report AM

Location ID: 4  
 North/South: Hill Street  
 East/West: College Street

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	14	381	39	13	100	52	1	58	1	14	22	5	700
7:15	18	368	22	17	113	54	2	61	3	8	26	13	705
7:30	14	362	33	15	102	22	2	68	5	20	45	19	707
7:45	19	340	25	17	105	27	3	85	5	30	51	13	720
8:00	16	339	30	20	103	28	5	64	10	30	39	14	698
8:15	14	320	29	25	102	24	5	68	3	19	34	6	649
8:30	12	336	35	13	93	40	9	66	4	24	24	13	669
8:45	20	315	30	14	104	39	10	71	7	27	26	9	672
9:00	14	281	41	14	104	35	17	52	5	34	32	6	635
9:15	16	325	26	12	73	30	11	49	11	24	33	11	621
9:30	19	305	35	15	73	34	12	89	7	15	27	10	641
9:45	19	308	43	25	98	14	14	80	4	14	42	14	675

Total Volume:	195	3980	388	200	1170	399	91	811	65	259	401	133	8092
Approach %	4%	87%	9%	11%	66%	23%	9%	84%	7%	33%	51%	17%	

Peak Hr Begin:	7:00												
PHV	65	1451	119	62	420	155	8	272	14	72	144	50	2832
PHF	0.942			0.865			0.790			0.707			0.983

# Turning Movement Count Report PM

Location ID: 4  
 North/South: Hill Street  
 East/West: College Street

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	13	153	24	45	31	5	13	230	4	9	42	19	588
15:15	15	166	17	57	44	16	24	293	6	8	40	14	700
15:30	13	166	20	30	48	15	17	287	7	16	53	19	691
15:45	10	262	21	36	44	5	23	279	12	18	56	22	788
16:00	14	303	19	27	38	15	9	287	7	13	57	15	804
16:15	15	297	26	36	51	12	11	270	18	15	52	23	826
16:30	18	300	23	43	45	9	15	232	9	15	64	28	801
16:45	16	318	21	45	53	10	17	278	11	18	58	28	873
17:00	13	310	18	55	57	11	12	290	6	11	72	30	885
17:15	10	277	23	56	50	8	14	236	7	10	68	33	792
17:30	21	285	18	43	50	9	10	265	7	13	61	31	813
17:45	12	305	13	51	50	6	13	244	2	13	37	31	777

Total Volume:	170	3142	243	524	561	121	178	3191	96	159	660	293	9338
Approach %	5%	88%	7%	43%	47%	10%	5%	92%	3%	14%	59%	26%	

Peak Hr Begin:	16:15												
PHV	62	1225	88	179	206	42	55	1070	44	59	246	109	3385
PHF	0.968			0.868			0.949			0.916			0.956

## Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	11	0	1	0	16	0	3	0
7:15	16	1	7	1	24	2	4	0
7:30	13	0	20	2	41	1	7	1
7:45	38	0	15	0	43	2	27	0
8:00	21	3	25	2	27	1	12	0
8:15	24	0	19	0	16	0	18	0
8:30	20	0	28	0	24	0	7	0
8:45	31	0	34	0	25	0	11	0
9:00	26	0	18	1	13	1	14	0
9:15	19	0	30	0	16	0	10	1
9:30	29	0	28	1	23	0	14	0
9:45	32	0	27	1	20	0	9	0

Leg:	North		East		South		West	
	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	16	0	1	0	31	1	24	0
15:15	18	0	1	0	28	0	7	0
15:30	16	1	0	0	27	1	13	0
15:45	23	0	0	0	28	2	20	1
16:00	24	1	3	1	25	0	18	1
16:15	23	3	2	2	18	0	12	0
16:30	19	1	1	0	21	1	13	2
16:45	20	0	2	0	27	2	17	0
17:00	22	2	4	1	38	2	6	0
17:15	23	2	0	0	21	0	10	0
17:30	29	1	0	3	16	1	12	0
17:45	22	0	1	2	12	0	4	0

## Turning Movement Count Report AM

Location ID: 5  
 North/South: Broadway  
 East/West: College Street

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	66	321	25	16	90	10	1	52	6	10	43	11	651
7:15	65	328	30	27	107	10	4	67	7	12	39	5	701
7:30	48	356	34	23	86	7	3	79	3	10	51	8	708
7:45	54	332	40	31	90	19	6	79	9	5	58	15	738
8:00	51	314	31	18	91	14	6	73	4	15	56	8	681
8:15	55	321	18	9	104	16	4	64	3	10	48	9	661
8:30	55	313	30	27	101	18	3	58	4	15	42	5	671
8:45	48	311	27	13	120	29	9	55	7	15	43	3	680
9:00	55	343	26	23	83	12	9	70	11	9	64	8	713
9:15	48	287	23	19	54	10	5	65	10	12	45	13	591
9:30	44	285	25	27	74	5	3	95	9	8	52	9	636
9:45	50	245	28	28	79	10	2	64	10	22	53	9	600

Total Volume:	639	3756	337	261	1079	160	55	821	83	143	594	103	8031
Approach %	14%	79%	7%	17%	72%	11%	6%	86%	9%	17%	71%	12%	

Peak Hr Begin:	7:15												
PHV	218	1330	135	99	374	50	19	298	23	42	204	36	2828
PHF	0.961			0.908			0.904			0.892			0.958

# Turning Movement Count Report PM

Location ID: 5  
 North/South: Broadway  
 East/West: College Street

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	13	86	14	43	64	3	17	161	11	13	42	14	481
15:15	15	122	12	46	90	6	11	183	12	19	49	16	581
15:30	29	114	21	45	59	8	15	241	10	8	53	17	620
15:45	13	102	28	78	51	5	15	270	21	18	56	21	678
16:00	16	150	11	60	55	6	11	367	14	12	53	18	773
16:15	16	117	13	59	52	6	10	337	18	14	47	20	709
16:30	21	146	8	77	74	7	10	374	9	16	61	16	819
16:45	23	144	12	62	74	2	14	364	16	12	63	18	804
17:00	19	157	18	63	75	2	7	350	16	16	77	17	817
17:15	22	117	10	88	75	6	10	391	10	10	57	21	817
17:30	16	130	16	81	70	3	6	408	10	12	57	19	828
17:45	20	139	9	67	76	3	6	414	6	11	40	19	810

Total Volume:	223	1524	172	769	815	57	132	3860	153	161	655	216	8737
Approach %	12%	79%	9%	47%	50%	3%	3%	93%	4%	16%	63%	21%	

Peak Hr Begin:	17:00												
PHV	77	543	53	299	296	14	29	1563	42	49	231	76	3272
PHF	0.867			0.901			0.959			0.809			0.988

## Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	11	0	0	0	10	0	5	0
7:15	8	0	10	0	9	0	12	0
7:30	10	0	11	1	24	1	15	0
7:45	20	1	22	1	25	1	17	1
8:00	11	0	11	0	18	0	19	0
8:15	14	0	18	0	20	0	17	0
8:30	10	1	19	0	23	0	8	0
8:45	16	0	13	0	21	0	30	0
9:00	15	0	30	1	40	2	11	0
9:15	10	0	21	1	24	2	36	0
9:30	24	0	17	1	37	1	36	1
9:45	10	1	22	0	41	0	46	0

Leg:	North		East		South		West	
	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	12	1	3	0	44	0	35	0
15:15	15	0	9	0	45	1	32	3
15:30	24	1	14	0	40	1	37	0
15:45	20	0	6	0	34	0	33	1
16:00	18	2	9	0	40	0	32	0
16:15	21	2	4	0	45	2	34	0
16:30	20	2	6	0	45	2	42	2
16:45	11	0	9	0	59	1	47	0
17:00	32	1	8	0	45	2	30	1
17:15	11	4	6	1	35	0	11	0
17:30	17	1	5	0	27	0	34	0
17:45	10	0	6	1	20	0	17	0

## Turning Movement Count Report AM

Location ID: 6  
 North/South: Alameda Street  
 East/West: College Street

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	23	268	2	1	50	6	0	47	41	47	5	3	493
7:15	17	290	2	1	41	7	2	62	37	33	7	12	511
7:30	21	298	2	0	49	9	1	64	39	44	10	14	551
7:45	19	244	2	0	53	14	4	61	68	57	12	25	559
8:00	22	291	2	2	43	10	4	50	47	42	22	23	558
8:15	19	290	2	3	55	12	4	45	52	38	5	22	547
8:30	43	274	3	3	75	18	7	71	43	38	10	11	596
8:45	45	260	7	6	68	25	19	70	45	35	12	27	619
9:00	29	216	1	4	34	10	3	63	37	39	14	32	482
9:15	21	162	2	1	33	11	13	66	37	33	14	15	408
9:30	23	174	4	12	32	8	4	74	44	37	17	21	450
9:45	17	153	5	6	46	6	11	71	49	31	15	24	434

Total Volume:	299	2920	34	39	579	136	72	744	539	474	143	229	6208
Approach %	9%	90%	1%	5%	77%	18%	5%	55%	40%	56%	17%	27%	

Peak Hr Begin:	8:00												
PHV	129	1115	14	14	241	65	34	236	187	153	49	83	2320
PHF	0.983			0.808			0.853			0.819			0.937

# Turning Movement Count Report PM

Location ID: 6  
 North/South: Alameda Street  
 East/West: College Street

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	12	73	4	8	25	2	4	114	68	28	18	26	382
15:15	15	70	1	5	20	5	4	131	102	36	21	10	420
15:30	20	66	2	8	15	2	1	162	82	51	18	18	445
15:45	17	65	4	2	13	5	7	154	101	44	16	14	442
16:00	11	55	3	3	25	3	6	155	80	29	23	23	416
16:15	16	50	3	5	17	11	4	175	95	27	16	19	438
16:30	10	82	1	4	25	6	4	170	103	37	22	18	482
16:45	18	63	0	5	13	8	5	227	101	31	16	25	512
17:00	15	74	3	4	27	4	8	186	96	49	31	32	529
17:15	34	61	4	4	22	5	5	174	97	29	23	29	487
17:30	23	48	2	1	24	4	1	173	102	28	18	32	456
17:45	13	49	2	3	14	2	9	174	112	26	18	27	449

Total Volume:	204	756	29	52	240	57	58	1995	1139	415	240	273	5458
Approach %	21%	76%	3%	15%	69%	16%	2%	63%	36%	45%	26%	29%	

Peak Hr Begin:	16:30												
PHV	77	280	8	17	87	23	22	757	397	146	92	104	2010
PHF	0.922			0.907			0.883			0.763			0.950



## Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	8	0	0	0	7	1	3	0
7:15	10	0	2	0	5	0	3	0
7:30	10	0	4	0	7	1	3	1
7:45	8	0	1	1	16	0	5	0
8:00	7	2	0	0	11	2	6	1
8:15	12	0	11	0	19	0	4	1
8:30	10	0	4	0	18	0	10	2
8:45	16	0	16	0	8	0	4	1
9:00	15	0	14	0	20	0	5	1
9:15	11	0	1	0	19	0	2	0
9:30	7	0	3	0	6	0	8	0
9:45	10	0	5	0	14	0	6	0

Leg:	North		East		South		West	
	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	4	0	3	0	15	0	10	0
15:15	7	0	1	0	6	0	9	1
15:30	10	1	4	0	16	0	17	0
15:45	13	0	0	0	8	0	12	2
16:00	6	0	2	0	16	2	12	1
16:15	10	0	3	2	11	1	18	0
16:30	13	2	6	0	19	0	22	1
16:45	15	1	1	0	13	1	11	2
17:00	9	0	2	1	16	1	11	0
17:15	9	0	2	0	11	0	10	0
17:30	6	0	0	0	4	0	4	0
17:45	6	0	2	0	6	0	2	0

## Turning Movement Count Report AM

Location ID: 7  
 North/South: Broadway  
 East/West: Bernard Street

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	11	416	0	0	0	0	0	61	17	6	0	6	517
7:15	15	452	0	0	0	0	0	70	23	5	0	6	571
7:30	14	418	0	0	0	0	1	81	23	5	0	3	545
7:45	9	422	0	0	0	0	0	83	29	5	0	5	553
8:00	9	407	0	0	0	0	0	79	17	7	0	3	522
8:15	5	428	1	1	0	0	2	61	15	4	0	3	520
8:30	3	400	3	0	0	0	0	50	29	9	0	7	501
8:45	7	380	0	0	0	0	0	52	18	15	0	11	483
9:00	5	413	0	0	0	0	3	58	23	7	0	3	512
9:15	2	365	0	0	0	0	0	60	32	9	0	8	476
9:30	3	331	1	0	0	0	1	81	37	18	0	13	485
9:45	6	312	1	0	0	0	0	75	32	17	1	15	459

Total Volume:	89	4744	6	1	0	0	7	811	295	107	1	83	6144
Approach %	2%	98%	0%	100%	0%	0%	1%	73%	27%	56%	1%	43%	

Peak Hr Begin:	7:15												
PHV	47	1699	0	0	0	0	1	313	92	22	0	17	2191
PHF	0.935			0.000			0.906			0.886			0.959

# Turning Movement Count Report PM

Location ID: 7  
 North/South: Broadway  
 East/West: Bernard Street

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	9	105	0	1	0	0	0	138	61	15	0	29	358
15:15	5	135	0	1	0	1	1	183	63	15	0	21	425
15:30	7	146	0	1	0	1	0	216	63	11	0	24	469
15:45	9	124	0	1	0	1	0	311	64	15	0	22	547
16:00	7	155	0	0	0	0	0	373	58	17	0	26	636
16:15	5	126	0	1	0	0	0	339	74	14	0	25	584
16:30	0	161	0	0	0	0	0	394	62	10	0	32	659
16:45	5	158	0	1	0	0	0	391	70	13	0	33	671
17:00	3	179	0	1	0	1	1	338	78	8	0	39	648
17:15	4	141	0	1	0	1	1	437	69	5	0	31	690
17:30	9	142	0	0	1	1	0	442	68	11	0	28	702
17:45	6	159	0	0	0	1	0	410	77	6	0	28	687

Total Volume:	69	1731	0	8	1	7	3	3972	807	140	0	338	7076
Approach %	4%	96%	0%	50%	6%	44%	0%	83%	17%	29%	0%	71%	

Peak Hr Begin:	17:00												
PHV	22	621	0	2	1	4	2	1627	292	30	0	126	2727
PHF	0.883			0.875			0.942			0.830			0.971

## Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	1	0	0	0	1	0	2	0
7:15	2	0	0	0	2	0	7	0
7:30	6	0	0	0	2	0	4	1
7:45	3	0	0	0	1	0	10	1
8:00	0	0	0	0	0	1	9	0
8:15	3	0	0	0	3	0	4	2
8:30	2	0	0	0	1	0	9	2
8:45	6	0	0	0	2	0	6	0
9:00	1	0	0	0	4	0	2	0
9:15	0	0	0	0	6	1	7	2
9:30	5	0	0	0	1	0	6	4
9:45	4	0	0	0	5	0	8	0

	North		East		South		West	
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	4	0	0	0	7	0	17	4
15:15	2	0	0	0	0	0	6	3
15:30	6	0	0	0	2	0	4	1
15:45	3	0	0	0	3	0	8	1
16:00	4	0	0	0	4	0	11	2
16:15	2	0	0	0	0	1	22	2
16:30	1	0	0	0	0	1	17	2
16:45	2	0	0	0	2	0	22	0
17:00	1	0	0	0	4	0	21	1
17:15	2	0	0	0	1	0	11	2
17:30	1	0	0	0	2	0	11	1
17:45	5	0	0	0	1	0	8	0

## Turning Movement Count Report AM

Location ID: 8  
 North/South: Broadway  
 East/West: Bishops Road

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	133	421	0	0	0	0	0	43	3	24	0	19	643
7:15	154	418	0	0	0	0	0	63	2	22	0	31	690
7:30	135	417	0	0	0	0	0	58	7	36	0	36	689
7:45	148	383	0	0	0	0	0	71	8	34	0	43	687
8:00	129	404	0	0	0	0	0	72	5	7	0	22	639
8:15	163	432	0	0	0	0	0	59	0	8	0	8	670
8:30	146	430	1	0	0	0	0	52	0	4	0	9	642
8:45	186	365	0	0	0	0	0	62	2	3	0	16	634
9:00	120	383	1	0	0	0	0	50	1	9	0	7	571
9:15	116	385	0	0	0	0	0	64	3	3	0	4	575
9:30	169	303	0	0	0	0	0	89	1	9	0	10	581
9:45	149	305	0	0	0	0	0	70	5	2	0	9	540

Total Volume:	1748	4646	2	0	0	0	0	753	37	161	0	214	7561
Approach %	27%	73%	0%	0%	0%	0%	0%	95%	5%	43%	0%	57%	

Peak Hr Begin:	7:00												
PHV	570	1639	0	0	0	0	0	235	20	116	0	129	2709
PHF	0.965			0.000			0.807			0.795			0.982

# Turning Movement Count Report PM

Location ID: 8  
 North/South: Broadway  
 East/West: Bishops Road

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	31	109	0	0	0	0	0	162	7	5	0	45	359
15:15	26	137	0	0	0	0	0	190	6	8	0	31	398
15:30	33	127	0	0	0	0	0	251	4	3	0	43	461
15:45	27	126	0	0	0	0	0	326	3	11	0	33	526
16:00	28	143	0	0	0	0	0	393	7	7	0	47	625
16:15	21	134	0	0	0	0	0	357	2	5	0	33	552
16:30	28	163	0	0	0	0	0	423	4	6	0	33	657
16:45	38	143	0	0	0	0	0	399	6	1	0	44	631
17:00	28	164	0	0	0	0	0	360	8	10	0	44	614
17:15	30	142	0	0	0	0	0	430	4	7	0	55	668
17:30	42	144	0	0	0	0	0	448	4	7	0	34	679
17:45	32	151	0	0	0	0	0	421	2	4	0	27	637

Total Volume:	364	1683	0	0	0	0	0	4160	57	74	0	469	6807
Approach %	18%	82%	0%	0%	0%	0%	0%	99%	1%	14%	0%	86%	

Peak Hr Begin:	17:00												
PHV	132	601	0	0	0	0	0	1659	18	28	0	160	2598
PHF	0.954			0.000			0.928			0.758			0.957

## Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	2	0	0	0	8	0	5	0
7:15	0	0	0	0	10	0	2	1
7:30	15	0	0	0	1	0	4	0
7:45	0	0	0	0	21	0	3	1
8:00	2	0	0	0	4	0	5	0
8:15	0	0	0	0	4	0	5	0
8:30	4	0	0	0	3	0	7	0
8:45	3	0	0	0	0	0	5	0
9:00	2	0	0	0	2	0	2	0
9:15	0	0	0	0	0	0	1	0
9:30	0	0	0	0	0	0	1	0
9:45	0	0	0	0	1	0	7	0

Leg:	North		East		South		West	
	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	2	0	0	0	2	0	3	1
15:15	1	0	0	0	1	0	6	1
15:30	0	0	0	0	0	0	1	1
15:45	1	0	0	0	0	1	5	0
16:00	0	0	0	0	1	0	2	2
16:15	0	0	0	0	0	0	10	2
16:30	1	0	0	0	2	0	11	0
16:45	1	0	0	0	1	0	4	1
17:00	2	0	0	0	8	0	7	0
17:15	0	0	0	0	0	0	2	0
17:30	2	0	0	0	2	0	5	1
17:45	0	0	0	0	0	1	2	3

## Turning Movement Count Report AM

Location ID: 9  
 North/South: Solano Avenue  
 East/West: Broadway

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	17	0	24	28	550	0	0	0	0	0	67	2	688
7:15	26	0	40	60	561	0	0	0	0	0	89	5	781
7:30	17	0	38	63	510	0	0	0	0	0	85	9	722
7:45	59	0	40	72	492	0	0	0	0	0	96	18	777
8:00	62	0	31	81	497	1	0	0	0	0	82	11	765
8:15	37	0	32	39	560	0	0	0	0	0	70	3	741
8:30	40	0	16	26	549	0	0	0	0	0	57	2	690
8:45	41	0	38	41	547	0	0	0	0	0	66	8	741
9:00	15	0	26	97	493	0	0	0	0	0	56	8	695
9:15	24	0	25	71	483	0	0	0	0	0	61	8	672
9:30	26	0	28	38	459	0	0	0	0	0	80	11	642
9:45	17	0	31	37	451	0	0	0	0	0	74	10	620

Total Volume:	381	0	369	653	6152	1	0	0	0	0	883	95	8534
Approach %	51%	0%	49%	10%	90%	0%	0%	0%	0%	0%	90%	10%	

Peak Hr Begin:	7:15												
PHV	164	0	149	276	2060	1	0	0	0	0	352	43	3045
PHF	0.790			0.941			0.000			0.866			0.975



# Turning Movement Count Report PM

Location ID: 9  
 North/South: Solano Avenue  
 East/West: Broadway

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	15	0	38	20	127	0	0	0	0	0	183	20	403
15:15	11	0	35	25	144	0	0	0	0	0	195	39	449
15:30	17	0	26	28	149	0	0	0	0	0	219	54	493
15:45	15	0	38	20	132	0	0	0	0	0	240	113	558
16:00	11	0	24	26	161	0	0	0	0	0	307	128	657
16:15	7	0	11	22	141	0	0	0	0	0	285	110	576
16:30	11	0	25	18	181	0	0	0	0	0	299	119	653
16:45	13	0	29	27	164	0	0	0	0	0	373	117	723
17:00	17	0	22	30	168	0	0	0	0	0	355	65	657
17:15	9	0	14	25	159	0	0	0	0	0	357	121	685
17:30	11	0	19	47	165	0	0	0	0	0	360	134	736
17:45	10	0	18	80	163	0	0	0	0	0	389	103	763

Total Volume:	147	0	299	368	1854	0	0	0	0	0	3562	1123	7353
Approach %	33%	0%	67%	17%	83%	0%	0%	0%	0%	0%	76%	24%	

Peak Hr Begin:	17:00												
PHV	47	0	73	182	655	0	0	0	0	0	1461	423	2841
PHF	0.769			0.861			0.000			0.953			0.931

## Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	5	1	1	0	0	0	6	0
7:15	3	1	0	0	0	0	3	0
7:30	7	1	7	0	0	0	3	0
7:45	4	0	2	0	0	0	1	0
8:00	5	0	1	0	0	0	1	0
8:15	6	0	2	0	0	0	1	0
8:30	6	0	0	0	0	0	3	0
8:45	6	0	0	0	0	0	1	0
9:00	4	0	2	0	0	0	3	0
9:15	3	0	1	0	0	0	0	0
9:30	1	0	2	0	0	0	0	0
9:45	9	0	1	0	0	0	2	0

	North		East		South		West	
Leg:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	4	1	1	0	0	0	1	0
15:15	15	1	6	0	0	0	3	0
15:30	5	1	2	0	0	0	6	0
15:45	14	0	0	0	0	0	2	0
16:00	2	1	1	0	0	0	0	0
16:15	9	0	1	0	0	0	5	0
16:30	7	2	0	0	0	0	5	0
16:45	1	1	0	0	0	0	2	0
17:00	9	1	12	0	0	0	4	1
17:15	3	0	2	0	0	0	1	0
17:30	11	1	0	0	0	0	4	0
17:45	6	2	2	0	0	0	2	0

## Turning Movement Count Report AM

Location ID: 10  
 North/South: Pasadena Avenue  
 East/West: Broadway

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	382	0	1	0	204	0	0	0	0	0	46	43	676
7:15	400	0	0	0	234	0	0	0	0	0	77	51	762
7:30	397	0	1	0	231	0	0	0	0	0	80	51	760
7:45	362	0	0	0	165	0	0	0	0	0	91	43	661
8:00	400	0	0	2	200	0	0	0	0	0	59	53	714
8:15	423	0	0	1	219	0	0	0	0	0	59	39	741
8:30	378	0	0	2	178	0	0	0	0	0	55	33	646
8:45	391	0	0	1	198	0	0	0	0	0	54	45	689
9:00	445	0	0	1	148	0	0	0	0	0	51	37	682
9:15	392	0	0	2	166	0	0	0	0	0	46	39	645
9:30	314	0	0	0	190	0	0	0	0	0	47	58	609
9:45	322	0	0	1	178	0	0	0	0	0	69	36	606

Total Volume:	4606	0	2	10	2311	0	0	0	0	0	734	528	8191
Approach %	100%	0%	0%	0%	100%	0%	0%	0%	0%	0%	58%	42%	

Peak Hr Begin:	7:15												
PHV	1559	0	1	2	830	0	0	0	0	0	307	198	2897
PHF	0.975			0.889			0.000			0.942			0.950

# Turning Movement Count Report PM

Location ID: 10  
 North/South: Pasadena Avenue  
 East/West: Broadway

Date: 12/05/17  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	58	0	0	1	87	0	0	0	0	0	112	111	369
15:15	98	0	0	0	85	0	0	0	0	0	103	114	400
15:30	80	0	0	1	99	0	0	0	0	0	125	133	438
15:45	80	0	0	3	69	0	0	0	0	0	107	172	431
16:00	104	0	0	3	82	0	0	0	0	0	106	189	484
16:15	106	0	0	7	61	0	0	0	0	0	105	215	494
16:30	105	0	0	1	96	0	0	0	0	0	99	221	522
16:45	99	0	0	6	91	0	0	0	0	0	123	262	581
17:00	106	0	0	5	98	0	0	0	0	0	144	243	596
17:15	103	0	1	13	80	0	0	0	0	0	116	266	579
17:30	90	0	0	3	115	0	0	0	0	0	120	239	567
17:45	93	0	0	12	133	0	0	0	0	0	107	271	616

Total Volume:	1122	0	1	55	1096	0	0	0	0	0	1367	2436	6077
Approach %	100%	0%	0%	5%	95%	0%	0%	0%	0%	0%	36%	64%	

Peak Hr Begin:	17:00												
PHV	392	0	1	33	426	0	0	0	0	0	487	1019	2358
PHF	0.927			0.791			0.000			0.973			0.957

## Pedestrian/Bicycle Count Report

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

Leg:	North		East		South		West	
	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	0	0	0	0	0	0	0	0
15:15	1	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0
15:45	3	0	4	0	0	0	0	0
16:00	2	0	1	0	0	0	0	0
16:15	1	0	0	0	0	0	0	0
16:30	1	0	1	0	0	0	0	0
16:45	5	0	0	0	0	0	0	0
17:00	1	0	0	0	0	0	0	0
17:15	1	1	1	1	0	0	0	0
17:30	1	1	0	0	0	0	0	0
17:45	1	1	0	0	0	0	0	0

## Turning Movement Count Report AM

Location ID: 11  
 North/South: Broadway  
 East/West: Alpine Street

Date: 01/10/18  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	47	300	19	9	99	19	5	53	2	5	26	4	588
7:15	63	242	31	14	121	24	8	75	3	5	32	4	622
7:30	51	263	21	14	125	26	10	73	3	10	48	3	647
7:45	56	285	21	18	101	27	10	68	6	3	35	3	633
8:00	51	266	25	9	100	48	14	64	6	5	35	3	626
8:15	33	295	27	11	135	40	13	55	5	4	37	2	657
8:30	56	296	23	20	121	33	11	60	5	4	27	4	660
8:45	65	280	21	14	106	42	11	57	4	7	40	6	653
9:00	36	264	30	15	99	31	9	65	2	11	46	2	610
9:15	34	243	21	17	81	21	15	70	7	7	39	6	561
9:30	25	277	11	18	72	24	20	77	4	5	40	5	578
9:45	41	232	11	15	55	21	29	63	9	10	36	4	526

Total Volume:	558	3243	261	174	1215	356	155	780	56	76	441	46	7361
Approach %	14%	80%	6%	10%	70%	20%	16%	79%	6%	13%	78%	8%	

Peak Hr Begin:	8:00												
PHV	205	1137	96	54	462	163	49	236	20	20	139	15	2596
PHF	0.959			0.913			0.908			0.821			0.983

## Turning Movement Count Report PM

Location ID: 11  
 North/South: Broadway  
 East/West: Alpine Street

Date: 01/10/18  
 City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	18	95	8	27	55	9	16	113	10	13	37	9	410
15:15	16	116	9	35	57	14	14	155	6	8	33	17	480
15:30	16	111	17	70	57	20	10	170	6	16	45	8	546
15:45	10	110	6	79	53	10	18	208	13	11	54	17	589
16:00	14	103	10	82	63	13	17	244	13	6	47	18	630
16:15	20	150	15	76	65	16	12	305	15	14	51	13	752
16:30	15	141	16	61	65	18	9	336	8	10	55	15	749
16:45	21	147	10	82	61	16	8	334	5	6	44	22	756
17:00	11	107	16	89	56	14	4	285	7	9	63	22	683
17:15	17	146	10	69	81	11	13	318	8	12	62	19	766
17:30	11	135	8	78	68	14	10	322	9	2	71	22	750
17:45	20	138	4	83	70	11	8	306	11	11	53	15	730

Total Volume:	189	1499	129	831	751	166	139	3096	111	118	615	197	7841
Approach %	10%	82%	7%	48%	43%	9%	4%	93%	3%	13%	66%	21%	

Peak Hr Begin:	16:45												
PHV	60	535	44	318	266	55	35	1259	29	29	240	85	2955
PHF	0.897			0.992			0.953			0.932			0.964

## Pedestrian/Bicycle Count Report

Leg:	North		East		South		West	
	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	1	0	5	0	5	0	7	1
7:15	7	0	6	1	11	1	9	1
7:30	10	0	8	3	15	1	9	1
7:45	10	0	6	0	17	1	22	1
8:00	8	0	12	1	9	0	12	0
8:15	13	1	23	1	16	1	14	2
8:30	16	0	22	0	12	1	18	1
8:45	10	0	13	0	15	0	35	0
9:00	11	0	17	1	17	0	22	1
9:15	26	1	35	2	40	0	55	1
9:30	24	0	36	0	33	0	33	0
9:45	32	0	41	0	31	0	45	0

Leg:	North		East		South		West	
	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	66	0	69	0	34	0	65	0
15:15	54	1	42	0	30	2	75	2
15:30	41	0	38	0	35	0	54	0
15:45	43	2	50	0	42	1	59	0
16:00	43	2	45	0	29	0	64	3
16:15	36	0	43	0	24	0	37	3
16:30	56	1	40	0	34	1	48	2
16:45	31	0	39	0	25	2	61	1
17:00	20	0	32	1	30	0	48	0
17:15	22	0	33	0	20	0	59	1
17:30	24	1	18	0	17	2	42	0
17:45	17	1	15	0	23	0	35	0



***Appendix D***

***Level of Service Worksheets***

***Morning Peak Hour LOS Worksheets***



# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Alameda Street		Year of Count:	2018		Ambient Growth: (%):	0.27		Conducted by:	GTC		Date:						
	East-West Street:	Main Street/Bauchet Street		Projection Year:	2021		Peak Hour:	AM		Reviewed by:			Project:	942 N Broadway					
No. of Phases						3											3		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?						0											0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0		
		EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0		
ATSAC-1 or ATSAC+ATCS-2?						2											2		
Override Capacity						0											0		
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through																		
	Through	391	2	145	2	393	145	73	467	2	170	2	469	2	171	0	469	2	171
	Through-Right																		
	Right	43	0	43	0	43	43	0	43	0	43	0	43	0	43	0	43	0	43
SOUTHBOUND	Left	41	1	41	0	41	41	0	41	1	41	0	41	1	41	0	41	1	41
	Left-Through																		
	Through	1327	3	442	2	1329	443	236	1574	3	525	2	1576	3	525	0	1576	3	525
	Through-Right																		
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	Left	156	2	86	1	157	86	22	179	2	98	1	180	2	99	0	180	2	99
	Left-Through																		
	Through	30	0	39	0	30	39	0	30	0	39	0	30	0	39	0	30	0	39
	Through-Right																		
	Right	9	0	0	0	9	0	0	9	0	0	0	9	0	0	0	9	0	0
WESTBOUND	Left	21	1	21	0	21	21	0	21	1	21	0	21	1	21	0	21	1	21
	Left-Through																		
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right																		
	Right	13	1	0	0	13	0	0	13	1	0	0	13	1	0	0	13	1	0
CRITICAL VOLUMES		North-South: 442		North-South: 443		North-South: 525		North-South: 525		North-South: 525		North-South: 525		North-South: 525					
		East-West: 86		East-West: 86		East-West: 98		East-West: 98		East-West: 99		East-West: 99		East-West: 99					
		SUM: 528		SUM: 529		SUM: 623		SUM: 623		SUM: 624		SUM: 624		SUM: 624					
VOLUME/CAPACITY (V/C) RATIO:		0.371		0.371		0.437		0.437		0.438		0.438		0.438					
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.271		0.271		0.337		0.337		0.338		0.338		0.338					
LEVEL OF SERVICE (LOS):		A		A		A		A		A		A		A					

REMARKS:

Version: 1i Beta; 8/4/2011

**PROJECT IMPACT**

Change in v/c due to project:	0.001	Δv/c after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



<b>I/S #:</b>	North-South Street: <b>Broadway</b>			Year of Count: <b>2018</b>	Ambient Growth: (%): <b>0.27</b>		Conducted by: <b>GTC</b>		Date:										
	East-West Street: <b>Alpine Street</b>			Projection Year: <b>2021</b>	Peak Hour: <b>AM</b>		Reviewed by:		Project: <b>942 N Broadway</b>										
No. of Phases																			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		3		3		3		3		3									
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0									
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0									
Override Capacity		2		2		2		2		2									
		0		0		0		0		0									
MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	20	1	20	0	20	20	1	21	1	21	0	21	1	21	0	21	1	21
	Left-Through		0						0				0				0		
	Through	236	1	143	7	243	146	63	301	1	175	7	308	1	179	0	308	1	179
	Through-Right		1						1				1				1		
	Right	49	0	49	0	49	49	0	49	0	49	0	49	0	49	0	49	0	49
	Left-Through-Right		0					0				0				0			
	Left-Right		0					0				0				0			
SOUTHBOUND	Left	96	1	96	2	98	98	0	97	1	97	2	99	1	99	0	99	1	99
	Left-Through		0						0				0				0		
	Through	1137	1	671	12	1149	678	166	1312	1	767	12	1324	1	773	0	1324	1	773
	Through-Right		1						1				1				1		
	Right	205	0	205	1	206	206	14	221	0	221	1	222	0	222	0	222	0	222
	Left-Through-Right		0					0				0				0			
	Left-Right		0					0				0				0			
EASTBOUND	Left	15	0	15	1	16	16	6	21	0	21	1	22	0	22	0	22	0	22
	Left-Through		1						1				1				1		
	Through	139	0	95	0	139	96	2	142	0	106	0	142	0	107	0	142	0	107
	Through-Right		1						1				1				1		
	Right	20	0	95	0	20	96	7	27	0	106	0	27	0	107	0	27	0	107
	Left-Through-Right		0					0				0				0			
	Left-Right		0					0				0				0			
WESTBOUND	Left	163	0	163	0	163	163	15	179	0	179	0	179	0	179	0	179	0	179
	Left-Through		1						1				1				1		
	Through	462	0	340	0	462	340	7	473	0	354	0	473	0	355	0	473	0	355
	Through-Right		1						1				1				1		
	Right	54	0	340	1	55	340	2	56	0	354	1	57	0	355	0	57	0	355
	Left-Through-Right		0					0				0				0			
	Left-Right		0					0				0				0			
CRITICAL VOLUMES		North-South: 691		North-South: 698		North-South: 788		North-South: 794		North-South: 794		North-South: 794		North-South: 794		North-South: 794		North-South: 794	
		East-West: 355		East-West: 356		East-West: 375		East-West: 377		East-West: 377		East-West: 377		East-West: 377		East-West: 377		East-West: 377	
		SUM: 1046		SUM: 1054		SUM: 1163		SUM: 1171		SUM: 1171		SUM: 1171		SUM: 1171		SUM: 1171		SUM: 1171	
VOLUME/CAPACITY (V/C) RATIO:				0.734		0.740		0.816		0.822		0.822		0.822		0.822		0.822	
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.634		0.640		0.716		0.722		0.722		0.722		0.722		0.722	
LEVEL OF SERVICE (LOS):				B		B		C		C		C		C		C		C	

REMARKS:

Version: 1i Beta; 8/4/2011

**PROJECT IMPACT**

Change in v/c due to project:	0.006	Δv/c after mitigation:	0.006
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Alameda Street		Year of Count:	2018		Ambient Growth: (%):	0.27		Conducted by:	GTC		Date:						
	East-West Street:	Alpine Street		Projection Year:	2021		Peak Hour:	AM		Reviewed by:			Project:	942 N Broadway					
No. of Phases		3		3		3		3		3		3		3		3			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0		0		0		0		0		0		0		0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 3	SB-- 0	NB-- 3	SB-- 0	NB-- 3	SB-- 0	NB-- 3	SB-- 0	NB-- 3	SB-- 0	NB-- 3	SB-- 0	NB-- 3	SB-- 0	NB-- 3	SB-- 0		
		EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0		
ATSAC-1 or ATSAC+ATCS-2?		2		2		2		2		2		2		2		2			
Override Capacity		0		0		0		0		0		0		0		0			
MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	41	1	41	1	42	42	5	46	1	46	1	47	1	47	0	47	1	47
	Left-Through																		
	Through	255	2	128	2	257	129	91	348	2	174	2	350	2	175	0	350	2	175
	Through-Right																		
	Right	8	1	0	0	8	0	0	8	1	0	0	8	1	0	0	8	1	0
Left-Through-Right																			
Left-Right																			
SOUTHBOUND	Left	144	1	144	0	144	144	0	145	1	145	0	145	1	145	0	145	1	145
	Left-Through																		
	Through	933	2	467	1	934	467	219	1160	2	580	1	1161	2	581	0	1161	2	581
	Through-Right																		
	Right	218	1	204	0	218	204	0	220	1	205	0	220	1	205	0	220	1	205
Left-Through-Right																			
Left-Right																			
EASTBOUND	Left	29	1	29	0	29	29	1	30	1	30	0	30	1	30	0	30	1	30
	Left-Through																		
	Through	135	1	87	0	135	88	3	139	1	89	0	139	1	90	0	139	1	90
	Through-Right																		
	Right	39	0	39	1	40	40	0	39	0	39	1	40	0	40	0	40	0	40
Left-Through-Right																			
Left-Right																			
WESTBOUND	Left	53	1	53	0	53	53	0	53	1	53	0	53	1	53	0	53	1	53
	Left-Through																		
	Through	896	2	448	0	896	448	5	908	2	454	0	908	2	454	0	908	2	454
	Through-Right																		
	Right	169	1	97	0	169	97	17	187	1	115	0	187	1	115	0	187	1	115
Left-Through-Right																			
Left-Right																			
CRITICAL VOLUMES		North-South: 508	East-West: 477	SUM: 985	North-South: 509	East-West: 477	SUM: 986	North-South: 626	East-West: 484	SUM: 1110	North-South: 628	East-West: 484	SUM: 1112	North-South: 628	East-West: 484	SUM: 1112	North-South: 628	East-West: 484	SUM: 1112
VOLUME/CAPACITY (V/C) RATIO:		0.691		0.692		0.779		0.780		0.780		0.780		0.780		0.780		0.780	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.591		0.592		0.679		0.680		0.680		0.680		0.680		0.680		0.680	
LEVEL OF SERVICE (LOS):		A		A		B		B		B		B		B		B		B	

REMARKS:

Version: 1i Beta; 8/4/2011

**PROJECT IMPACT**

Change in v/c due to project:	0.001	Δv/c after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Hill Street		Year of Count:	2018		Ambient Growth: (%):	0.27		Conducted by:	GTC		Date:						
	East-West Street:	College Street		Projection Year:	2021		Peak Hour:	AM		Reviewed by:			Project:	942 N Broadway					
No. of Phases		2		2		2		2		2		2		2		2			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0		0		0		0		0		0		0		0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0		
ATSAC-1 or ATSAC+ATCS-2?		2		2		2		2		2		2		2		2			
Override Capacity		0		0		0		0		0		0		0		0			
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	14	1	14	0	14	14	0	14	1	14	0	14	1	14	0	14	1	14
	Left-Through		0							0				0				0	
	Through	272	1	140	0	272	141	8	282	1	150	0	282	1	151	0	282	1	151
	Through-Right		1							1				1				1	
	Right	8	0	8	1	9	9	10	18	0	18	1	19	0	19	0	19	0	19
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
SOUTHBOUND	Left	119	1	119	1	120	120	29	149	1	149	1	150	1	150	0	150	1	150
	Left-Through		0							0				0				0	
	Through	1451	1	758	0	1451	758	24	1487	1	777	0	1487	1	777	0	1487	1	777
	Through-Right		1							1				1				1	
	Right	65	0	65	0	65	65	0	66	0	66	0	66	0	66	0	66	0	66
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
EASTBOUND	Left	50	0	50	0	50	50	0	50	0	50	0	50	0	50	0	50	0	50
	Left-Through		1							1				1				1	
	Through	144	0	158	1	145	159	27	172	0	173	1	173	0	173	0	173	0	173
	Through-Right		1							1				1				1	
	Right	72	0	158	0	72	159	0	73	0	173	0	73	0	173	0	73	0	173
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
WESTBOUND	Left	155	0	155	1	156	156	27	183	0	183	1	184	0	184	0	184	0	184
	Left-Through		1							1				1				1	
	Through	420	0	319	0	420	319	12	435	0	356	0	435	0	356	0	435	0	356
	Through-Right		1							1				1				1	
	Right	62	0	319	0	62	319	30	93	0	356	0	93	0	356	0	93	0	356
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
CRITICAL VOLUMES		North-South: 772	East-West: 369	SUM: 1141	North-South: 772	East-West: 369	SUM: 1141	North-South: 791	East-West: 406	SUM: 1197	North-South: 791	East-West: 406	SUM: 1197	North-South: 791	East-West: 406	SUM: 1197	North-South: 791	East-West: 406	SUM: 1197
VOLUME/CAPACITY (V/C) RATIO:		0.761		0.761		0.798		0.798		0.798		0.798		0.798		0.798		0.798	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.661		0.661		0.698		0.698		0.698		0.698		0.698		0.698		0.698	
LEVEL OF SERVICE (LOS):		B		B		B		B		B		B		B		B		B	

REMARKS:

Version: 1i Beta; 8/4/2011

**PROJECT IMPACT**

Change in v/c due to project:	0.000	Δv/c after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Broadway		Year of Count:	2018		Ambient Growth: (%):	0.27		Conducted by:	GTC		Date:						
	East-West Street:	College Street		Projection Year:	2021		Peak Hour:	AM		Reviewed by:			Project:	942 N Broadway					
No. of Phases		3		3		3		3		3		3		3		3			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0		0		0		0		0		0		0		0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0		
ATSAC-1 or ATSAC+ATCS-2?		2		2		2		2		2		2		2		2			
Override Capacity		0		0		0		0		0		0		0		0			
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	23	1	23	0	23	23	0	23	1	23	0	23	1	23	0	23	1	23
	Left-Through		0							0				0				0	
	Through	298	1	159	9	307	163	62	362	1	195	9	371	1	199	0	371	1	199
	Through-Right		1							1				1				1	
	Right	19	0	19	0	19	19	8	27	0	27	0	27	0	27	0	27	0	27
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
SOUTHBOUND	Left	135	1	135	4	139	139	17	153	1	153	4	157	1	157	0	157	1	157
	Left-Through		0							0				0				0	
	Through	1330	2	665	16	1346	673	108	1449	2	725	16	1465	2	733	0	1465	2	733
	Through-Right		0							0				0				0	
	Right	218	1	218	1	219	219	25	245	1	245	1	246	1	246	0	246	1	246
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
EASTBOUND	Left	36	0	36	2	38	38	33	69	0	69	2	71	0	71	0	71	0	71
	Left-Through		1							1				1				1	
	Through	204	0	159	0	204	161	25	231	0	209	0	231	0	211	0	231	0	211
	Through-Right		1							1				1				1	
	Right	42	0	159	0	42	161	7	49	0	209	0	49	0	211	0	49	0	211
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
WESTBOUND	Left	50	0	50	0	50	50	65	115	0	115	0	115	0	115	0	115	0	115
	Left-Through		1							1				1				1	
	Through	374	0	262	0	374	264	44	421	0	329	0	421	0	331	0	421	0	331
	Through-Right		1							1				1				1	
	Right	99	0	262	4	103	264	21	121	0	329	4	125	0	331	0	125	0	331
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
CRITICAL VOLUMES		North-South:	688	North-South:	696	North-South:	748	North-South:	756	North-South:	756	North-South:	756	North-South:	756	North-South:	756	North-South:	756
		East-West:	298	East-West:	302	East-West:	398	East-West:	402	East-West:	402	East-West:	402	East-West:	402	East-West:	402	East-West:	402
		SUM:	986	SUM:	998	SUM:	1146	SUM:	1158	SUM:	1158	SUM:	1158	SUM:	1158	SUM:	1158	SUM:	1158
VOLUME/CAPACITY (V/C) RATIO:		0.692		0.700		0.804		0.813		0.813		0.813		0.813		0.813		0.813	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.592		0.600		0.704		0.713		0.713		0.713		0.713		0.713		0.713	
LEVEL OF SERVICE (LOS):		A		B		C		C		C		C		C		C		C	

REMARKS:

Version: 1i Beta; 8/4/2011

**PROJECT IMPACT**

Change in v/c due to project:	0.009	Δv/c after mitigation:	0.009
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



<b>I/S #:</b>	North-South Street:	<b>Spring Street</b>		Year of Count:	<b>2018</b>		Ambient Growth: (%):	<b>0.27</b>		Conducted by:	<b>GTC</b>		Date:				
	East-West Street:	<b>College Street</b>		Projection Year:	<b>2021</b>		Peak Hour:	<b>AM</b>		Reviewed by:			Project:	<b>942 N Broadway</b>			
	No. of Phases																
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	3			3			3			3			3			
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	ATSAC-1 or ATSAC+ATCS-2?	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
	Override Capacity																
		2			2			2			2			2			
		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			
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		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			
		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			
		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			
		0			0			0			0			0			

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	<b>Broadway</b>		Year of Count:	<b>2018</b>		Ambient Growth: (%):	<b>0.27</b>		Conducted by:	<b>GTC</b>		Date:						
	East-West Street:	<b>Bernard Street</b>		Projection Year:	<b>2021</b>		Peak Hour:	<b>AM</b>		Reviewed by:			Project:	<b>942 N Broadway</b>					
No. of Phases																			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		3		3		3		3		3		3		3		3			
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0		
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0		
Override Capacity		2		2		2		2		2		2		2		2			
		0		0		0		0		0		0		0		0			
MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	92	1	92	1	93	93	7	100	1	100	1	101	1	101	0	101	1	101
	Left-Through		0							0			0					0	
	Through	313	1	157	18	331	166	80	396	1	199	18	414	1	208	0	414	1	208
	Through-Right		1							1			1					1	
	Right	1	0	1	0	1	1	0	1	0	1	0	1	0	1	0	1	0	1
Left-Through-Right		0							0			0					0		
Left-Right		0							0			0					0		
SOUTHBOUND	Left	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
	Left-Through		0							0			0					0	
	Through	1699	1	873	12	1711	879	122	1835	1	942	12	1847	1	948	0	1847	1	948
	Through-Right		1							1			1					1	
	Right	47	0	47	0	47	47	1	48	0	48	0	48	0	48	0	48	0	48
Left-Through-Right		0							0			0					0		
Left-Right		0							0			0					0		
EASTBOUND	Left	17	1	17	0	17	17	0	17	1	17	0	17	1	17	0	17	1	17
	Left-Through		0							0			0					0	
	Through	0	0	22	0	0	22	0	0	0	22	0	0	0	22	0	0	0	22
	Through-Right		1							1			1					1	
	Right	22	0	0	0	22	0	0	22	0	0	0	22	0	0	0	22	0	0
Left-Through-Right		0							0			0					0		
Left-Right		0							0			0					0		
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0			0					0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0			0					0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		1							1			1					1		
Left-Right		0							0			0					0		
CRITICAL VOLUMES		North-South: 965		North-South: 972		North-South: 1042		North-South: 1049		North-South: 1049		North-South: 1049		North-South: 1049		North-South: 1049		North-South: 1049	
		East-West: 22		East-West: 22		East-West: 22		East-West: 22		East-West: 22		East-West: 22		East-West: 22		East-West: 22		East-West: 22	
		SUM: 987		SUM: 994		SUM: 1064		SUM: 1071		SUM: 1071		SUM: 1071		SUM: 1071		SUM: 1071		SUM: 1071	
VOLUME/CAPACITY (V/C) RATIO:		0.693		0.698		0.747		0.752		0.752		0.752		0.752		0.752		0.752	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.593		0.598		0.647		0.652		0.652		0.652		0.652		0.652		0.652	
LEVEL OF SERVICE (LOS):		A		A		B		B		B		B		B		B		B	

REMARKS:

Version: 1i Beta; 8/4/2011

**PROJECT IMPACT**

Change in v/c due to project:	<b>0.005</b>	Δv/c after mitigation:	<b>0.005</b>
Significant impacted?	<b>NO</b>	Fully mitigated?	<b>N/A</b>

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Broadway		Year of Count:	2018		Ambient Growth: (%):	0.27		Conducted by:	GTC		Date:												
	East-West Street:	Bishops Road		Projection Year:	2021		Peak Hour:	AM		Reviewed by:			Project:	942 N Broadway											
No. of Phases		2		2		2		2		2		2		2		2									
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0		0		0		0		0		0		0		0									
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0								
		EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0								
ATSAC-1 or ATSAC+ATCS-2?		2		2		2		2		2		2		2		2									
Override Capacity		0		0		0		0		0		0		0		0									
MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION										
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume							
NORTHBOUND	Left	20	1	20	0	20	20	33	53	1	53	0	53	1	53	0	53	1	53						
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	Through	235	2	118	18	253	127	82	319	2	160	18	337	2	169	0	337	2	169						
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	Through	1639	1	1105	11	1650	1110	85	1737	1	1173	11	1748	1	1178	0	1748	1	1178						
	Through-Right	570	1	570	0	570	570	33	608	0	608	0	608	0	608	0	608	0	608						
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
EASTBOUND	Left	129	0	129	0	129	129	4	134	0	134	0	134	0	134	0	134	0	134						
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	Through-Right	116	0	245	1	117	246	11	128	0	262	1	129	0	263	0	129	0	263						
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
CRITICAL VOLUMES		North-South:	1125	East-West:	245	SUM:	1370	North-South:	1130	East-West:	246	SUM:	1376	North-South:	1226	East-West:	262	SUM:	1488	North-South:	1231	East-West:	263	SUM:	1494
VOLUME/CAPACITY (V/C) RATIO:		0.913		0.917		0.992		0.996		0.996		0.996		0.996		0.996		0.996							
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.813		0.817		0.892		0.896		0.896		0.896		0.896		0.896		0.896							
LEVEL OF SERVICE (LOS):		D		D		D		D		D		D		D		D		D							

REMARKS:

Version: 1i Beta; 8/4/2011

**PROJECT IMPACT**

Change in v/c due to project:	0.004	Δv/c after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Pasadena Avenue (west end)		Year of Count:	2018		Ambient Growth: (%):	0.27		Conducted by:	GTC		Date:						
	11	East-West Street:	Broadway		Projection Year:	2021		Peak Hour:	AM		Reviewed by:			Project:	942 N Broadway				
No. of Phases				3		3		3		3		3		3		3			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0		0		0		0		0		0		0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0 SB-- 0		0 0		0 0		0 0		0 0		0 0		0 0		0 0			
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0 WB-- 0		0 0		0 0		0 0		0 0		0 0		0 0		0 0			
Override Capacity				2		2		2		2		2		2		2			
				0		0		0		0		0		0		0			
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SOUTHBOUND	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left	1	0	0	0	1	0	1	0	0	0	1	0	0	0	1	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EASTBOUND	Through-Right	1559	2	773	7	1566	775	12	1584	2	772	7	1591	2	774	0	1591	2	774
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left	198	1	168	7	205	172	24	224	1	199	7	231	1	203	0	231	1	203
WESTBOUND	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through	830	2	415	4	834	417	41	878	2	439	4	882	2	441	0	882	2	441
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	2	1	2	0	2	2	0	2	1	2	0	2	1	2	0	2	1	2
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CRITICAL VOLUMES		North-South: 773		North-South: 775		North-South: 772		North-South: 774		North-South: 774		North-South: 774		North-South: 774		North-South: 774			
		East-West: 583		East-West: 589		East-West: 638		East-West: 644		East-West: 644		East-West: 644		East-West: 644		East-West: 644			
		SUM: 1356		SUM: 1364		SUM: 1410		SUM: 1418		SUM: 1418		SUM: 1418		SUM: 1418		SUM: 1418			
VOLUME/CAPACITY (V/C) RATIO:		0.952		0.957		0.989		0.995		0.995		0.995		0.995		0.995			
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.852		0.857		0.889		0.895		0.895		0.895		0.895		0.895			
LEVEL OF SERVICE (LOS):		D		D		D		D		D		D		D		D			

REMARKS:

Version: 1i Beta; 8/4/2011

**PROJECT IMPACT**

Change in v/c due to project:	0.006	Δv/c after mitigation:	0.006
Significant impacted?	NO	Fully mitigated?	N/A

## ***Afternoon Peak Hour LOS Worksheets***

# Level of Service Worksheet (Circular 212 Method)



<b>I/S #:</b>	North-South Street:	<b>Broadway</b>		Year of Count:	2018		Ambient Growth: (%):	0.27		Conducted by:	GTC		Date:						
	East-West Street:	<b>Cesar Chavez Avenue</b>		Projection Year:	2021		Peak Hour:	PM		Reviewed by:			Project:	<b>942 N Broadway</b>					
	No. of Phases				4			4			4			4					
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0			0			0					
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	3	NB--	0	SB--	3	NB--	0	SB--	3	NB--	0	SB--	3		
		EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0		
	ATSAC-1 or ATSAC+ATCS-2?				2			2			2			2					
	Override Capacity				0			0			0			0					
	<b>MOVEMENT</b>	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
<b>NORTHBOUND</b>	Left	18	1	18	0	18	18	90	108	1	108	0	108	1	108	0	108	1	108
	Left-Through	766	0	426	4	770	428	177	949	1	518	4	953	1	520	0	953	1	520
	Through	86	1	86	0	86	86	0	87	0	87	0	87	0	87	0	87	0	87
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>SOUTHBOUND</b>	Left	44	1	44	1	45	45	21	65	1	65	1	66	1	66	0	66	1	66
	Left-Through	416	2	208	5	421	211	152	571	2	286	5	576	2	288	0	576	2	288
	Through	216	1	82	3	219	83	43	261	1	95	3	264	1	96	0	264	1	96
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>EASTBOUND</b>	Left	243	2	134	4	247	136	57	302	2	166	4	306	2	168	0	306	2	168
	Left-Through	1012	2	350	0	1012	350	108	1128	2	390	0	1128	2	390	0	1128	2	390
	Through	39	1	39	0	39	39	4	43	0	43	0	43	0	43	0	43	0	43
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>WESTBOUND</b>	Left	84	1	84	0	84	84	9	94	1	94	0	94	1	94	0	94	1	94
	Left-Through	1102	2	551	0	1102	551	81	1192	2	596	0	1192	2	596	0	1192	2	596
	Through	272	1	250	0	272	250	31	305	1	273	0	305	1	272	0	305	1	272
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>CRITICAL VOLUMES</b>	North-South:	470		North-South:	473		North-South:	583		North-South:	586		North-South:	586		North-South:	586	
		East-West:	685		East-West:	687		East-West:	762		East-West:	764		East-West:	764		East-West:	764	
		SUM:	1155		SUM:	1160		SUM:	1345		SUM:	1350		SUM:	1350		SUM:	1350	
	<b>VOLUME/CAPACITY (V/C) RATIO:</b>			0.840			0.844			0.978			0.982			0.982			0.982
	<b>V/C LESS ATSAC/ATCS ADJUSTMENT:</b>			0.740			0.744			0.878			0.882			0.882			0.882
	<b>LEVEL OF SERVICE (LOS):</b>			<b>C</b>			<b>C</b>			<b>D</b>			<b>D</b>			<b>D</b>			<b>D</b>

REMARKS:

Version: 1i Beta; 8/4/2011

<b>PROJECT IMPACT</b>	
Change in v/c due to project:	0.004
Significant impacted?	NO
Δv/c after mitigation:	0.004
Fully mitigated?	N/A





# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Broadway		Year of Count:	2018		Ambient Growth: (%):	0.27		Conducted by:	GTC		Date:						
	East-West Street:	Alpine Street		Projection Year:	2021		Peak Hour:	PM		Reviewed by:			Project:	942 N Broadway					
No. of Phases		3		3		3		3		3		3		3		3			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0		0		0		0		0		0		0		0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0		
ATSAC-1 or ATSAC+ATCS-2?		2		2		2		2		2		2		2		2			
Override Capacity		0		0		0		0		0		0		0		0			
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	29	1	29	0	29	29	4	33	1	33	0	33	1	33	0	33	1	33
	Left-Through		0							0				0				0	
	Through	1259	1	647	9	1268	652	159	1428	1	732	9	1437	1	736	0	1437	1	736
	Through-Right		1							1				1				1	
	Right	35	0	35	0	35	35	0	35	0	35	0	35	0	35	0	35	0	35
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	44	1	44	2	46	46	0	44	1	44	2	46	1	46	0	46	1	46
	Left-Through		0							0				0				0	
	Through	535	1	298	9	544	303	126	665	1	366	9	674	1	371	0	674	1	371
	Through-Right		1							1				1				1	
	Right	60	0	60	1	61	61	7	67	0	67	1	68	0	68	0	68	0	68
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	85	0	85	1	86	86	13	99	0	99	1	100	0	100	0	100	0	100
	Left-Through		1							1				1				1	
	Through	240	0	220	0	240	221	6	248	0	240	0	248	0	241	0	248	0	241
	Through-Right		1							1				1				1	
	Right	29	0	220	0	29	221	4	33	0	240	0	33	0	241	0	33	0	241
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	55	0	55	0	55	55	7	62	0	62	0	62	0	62	0	62	0	62
	Left-Through		1							1				1				1	
	Through	266	0	320	0	266	320	2	270	0	329	0	270	0	329	0	270	0	329
	Through-Right		1							1				1				1	
	Right	318	0	320	1	319	320	4	325	0	329	1	326	0	329	0	326	0	329
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South: 691		North-South: 698		North-South: 776		North-South: 782		North-South: 782		North-South: 782		North-South: 782		North-South: 782		North-South: 782	
		East-West: 405		East-West: 406		East-West: 428		East-West: 428		East-West: 428		East-West: 429		East-West: 429		East-West: 429		East-West: 429	
		SUM: 1096		SUM: 1104		SUM: 1204		SUM: 1204		SUM: 1204		SUM: 1211		SUM: 1211		SUM: 1211		SUM: 1211	
VOLUME/CAPACITY (V/C) RATIO:		0.769		0.775		0.845		0.850		0.850		0.850		0.850		0.850		0.850	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.669		0.675		0.745		0.750		0.750		0.750		0.750		0.750		0.750	
LEVEL OF SERVICE (LOS):		B		B		C		C		C		C		C		C		C	

REMARKS:

Version: 1i Beta; 8/4/2011

**PROJECT IMPACT**

Change in v/c due to project:	0.005	Δv/c after mitigation:	0.005
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Alameda Street		Year of Count:	2018		Ambient Growth: (%):	0.27		Conducted by:	GTC		Date:						
	East-West Street:	Alpine Street		Projection Year:	2021		Peak Hour:	PM		Reviewed by:			Project:	942 N Broadway					
No. of Phases		3		3		3		3		3		3		3		3			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0		0		0		0		0		0		0		0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 3	SB-- 0	NB-- 3	SB-- 0	NB-- 3	SB-- 0	NB-- 3	SB-- 0	NB-- 3	SB-- 0	NB-- 3	SB-- 0	NB-- 3	SB-- 0	NB-- 3	SB-- 0		
		EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0		
ATSAC-1 or ATSAC+ATCS-2?		2		2		2		2		2		2		2		2			
Override Capacity		0		0		0		0		0		0		0		0			
MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	132	1	132	1	133	133	14	147	1	147	1	148	1	148	0	148	1	148
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	789	2	395	3	792	396	212	1007	2	504	3	1010	2	505	0	1010	2	505
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	39	1	0	0	39	0	0	39	1	0	0	39	1	0	0	39	1	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTHBOUND	Left	81	1	81	0	81	81	0	82	1	82	0	82	1	82	0	82	1	82
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	344	2	172	1	345	173	148	495	2	248	1	496	2	248	0	496	2	248
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	44	1	0	0	44	0	0	44	1	0	0	44	1	0	0	44	1	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	Left	90	1	90	0	90	90	1	92	1	92	0	92	1	92	0	92	1	92
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	306	1	179	0	306	179	2	310	1	181	0	310	1	181	0	310	1	181
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	51	1	51	1	52	52	0	51	0	51	1	52	0	52	0	52	0	52
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WESTBOUND	Left	43	1	43	0	43	43	0	43	1	43	0	43	1	43	0	43	1	43
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	544	2	272	0	544	272	3	551	2	276	0	551	2	276	0	551	2	276
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	295	1	255	0	295	255	39	336	1	295	0	336	1	295	0	336	1	295
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES		North-South:	476	North-South:	477	North-South:	586	North-South:	587	North-South:	587	North-South:	587	North-South:	587	North-South:	587	North-South:	587
		East-West:	362	East-West:	362	East-West:	387	East-West:	387	East-West:	387	East-West:	387	East-West:	387	East-West:	387	East-West:	387
		SUM:	838	SUM:	839	SUM:	973	SUM:	974	SUM:	974	SUM:	974	SUM:	974	SUM:	974	SUM:	974
VOLUME/CAPACITY (V/C) RATIO:		0.588		0.589		0.683		0.684		0.684		0.684		0.684		0.684		0.684	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.488		0.489		0.583		0.584		0.584		0.584		0.584		0.584		0.584	
LEVEL OF SERVICE (LOS):		A		A		A		A		A		A		A		A		A	

REMARKS:

Version: 1i Beta; 8/4/2011

**PROJECT IMPACT**

Change in v/c due to project:	0.001	Δv/c after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Hill Street		Year of Count:	2018		Ambient Growth: (%):	0.27		Conducted by:	GTC		Date:						
	East-West Street:	College Street		Projection Year:	2021		Peak Hour:	PM		Reviewed by:			Project:	942 N Broadway					
No. of Phases		2		2		2		2		2		2		2		2			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0		0		0		0		0		0		0		0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0		
ATSAC-1 or ATSAC+ATCS-2?		2		2		2		2		2		2		2		2			
Override Capacity		0		0		0		0		0		0		0		0			
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	44	1	44	0	44	44	0	44	1	44	0	44	1	44	0	44	1	44
	Left-Through		0							0				0				0	
	Through	1070	1	563	0	1070	563	15	1094	1	596	0	1094	1	596	0	1094	1	596
	Through-Right		1							1				1				1	
	Right	55	0	55	1	56	56	42	97	0	97	1	98	0	98	0	98	0	98
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
SOUTHBOUND	Left	88	1	88	1	89	89	77	166	1	166	1	167	1	167	0	167	1	167
	Left-Through		0							0				0				0	
	Through	1225	1	644	0	1225	644	44	1279	1	671	0	1279	1	671	0	1279	1	671
	Through-Right		1							1				1				1	
	Right	62	0	62	0	62	62	0	63	0	63	0	63	0	63	0	63	0	63
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
EASTBOUND	Left	109	0	109	0	109	109	0	110	0	110	0	110	0	110	0	110	0	110
	Left-Through		1							1				1				1	
	Through	246	0	262	1	247	262	83	331	0	305	1	332	0	306	0	332	0	306
	Through-Right		1							1				1				1	
	Right	59	0	262	0	59	262	0	59	0	305	0	59	0	306	0	59	0	306
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
WESTBOUND	Left	42	0	42	1	43	43	15	57	0	57	1	58	0	58	0	58	0	58
	Left-Through		1							1				1				1	
	Through	206	0	235	0	206	236	5	213	0	263	0	213	0	264	0	213	0	264
	Through-Right		1							1				1				1	
	Right	179	0	235	0	179	236	18	198	0	263	0	198	0	264	0	198	0	264
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
CRITICAL VOLUMES		North-South:	688	North-South:	688	North-South:	762	North-South:	763	North-South:	763	North-South:	763	North-South:	763	North-South:	763	North-South:	763
		East-West:	344	East-West:	345	East-West:	373	East-West:	374	East-West:	374	East-West:	374	East-West:	374	East-West:	374	East-West:	374
		SUM:	1032	SUM:	1033	SUM:	1135	SUM:	1137	SUM:	1137	SUM:	1137	SUM:	1137	SUM:	1137	SUM:	1137
VOLUME/CAPACITY (V/C) RATIO:		0.688		0.689		0.757		0.758		0.758		0.758		0.758		0.758		0.758	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.588		0.589		0.657		0.658		0.658		0.658		0.658		0.658		0.658	
LEVEL OF SERVICE (LOS):		A		A		B		B		B		B		B		B		B	

REMARKS:

Version: 1i Beta; 8/4/2011

**PROJECT IMPACT**

Change in v/c due to project:	0.001	Δv/c after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	<b>Broadway</b>		Year of Count:	<b>2018</b>		Ambient Growth: (%):	<b>0.27</b>		Conducted by:	<b>GTC</b>		Date:						
	East-West Street:	<b>College Street</b>		Projection Year:	<b>2021</b>		Peak Hour:	<b>PM</b>		Reviewed by:			Project:	<b>942 N Broadway</b>					
No. of Phases																			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		3		3		3		3		3		3		3		3			
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0		
ATSAC-1 or ATSAC+ATCS-2?		2		2		2		2		2		2		2		2			
Override Capacity		0		0		0		0		0		0		0		0			
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	42	1	42	0	42	42	0	42	1	42	0	42	1	42	0	42	1	42
	Left-Through		0							0				0				0	
	Through	1563	1	796	11	1574	802	156	1732	1	891	11	1743	1	896	0	1743	1	896
	Through-Right		1							1				1				1	
	Right	29	0	29	0	29	29	20	49	0	49	0	49	0	49	0	49	0	49
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
SOUTHBOUND	Left	53	1	53	2	55	55	10	63	1	63	2	65	1	65	0	65	1	65
	Left-Through		0							0				0				0	
	Through	543	2	272	11	554	277	69	616	2	308	11	627	2	314	0	627	2	314
	Through-Right		0							0				0				0	
	Right	77	1	77	1	78	39	14	92	1	15	1	93	1	15	0	93	1	15
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
EASTBOUND	Left	76	0	76	2	78	78	78	155	0	155	2	157	0	157	0	157	0	157
	Left-Through		1							1				1				1	
	Through	231	0	216	0	231	280	95	328	0	407	0	328	0	407	0	328	0	407
	Through-Right		1							1				1				1	
	Right	49	0	216	0	49	0	30	79	0	0	0	79	0	0	0	79	0	0
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
WESTBOUND	Left	14	0	14	0	14	14	33	47	0	47	0	47	0	47	0	47	0	47
	Left-Through		1							1				1				1	
	Through	296	0	305	0	296	307	25	323	0	373	0	323	0	376	0	323	0	376
	Through-Right		1							1				1				1	
	Right	299	0	305	5	304	307	28	329	0	373	5	334	0	376	0	334	0	376
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
CRITICAL VOLUMES		North-South: 849		North-South: 857		North-South: 954		North-South: 961		North-South: 961		North-South: 961		North-South: 961		North-South: 961		North-South: 961	
		East-West: 381		East-West: 385		East-West: 528		East-West: 533		East-West: 533		East-West: 533		East-West: 533		East-West: 533		East-West: 533	
		SUM: 1230		SUM: 1242		SUM: 1482		SUM: 1494		SUM: 1494		SUM: 1494		SUM: 1494		SUM: 1494		SUM: 1494	
VOLUME/CAPACITY (V/C) RATIO:		0.863		0.872		1.040		1.048		1.048		1.048		1.048		1.048		1.048	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.763		0.772		0.940		0.948		0.948		0.948		0.948		0.948		0.948	
LEVEL OF SERVICE (LOS):		C		C		E		E		E		E		E		E		E	

REMARKS:

Version: 1i Beta; 8/4/2011

**PROJECT IMPACT**

Change in v/c due to project:	<b>0.008</b>	Δv/c after mitigation:	<b>0.008</b>
Significant impacted?	<b>NO</b>	Fully mitigated?	<b>N/A</b>

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Spring Street		Year of Count:	2018		Ambient Growth: (%):	0.27		Conducted by:	GTC		Date:						
	East-West Street:	College Street		Projection Year:	2021		Peak Hour:	PM		Reviewed by:			Project:	942 N Broadway					
No. of Phases		3		3		3		3		3		3		3		3			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0		0		0		0		0		0		0		0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0		
		EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0		
ATSAC-1 or ATSAC+ATCS-2?		2		2		2		2		2		2		2		2			
Override Capacity		0		0		0		0		0		0		0		0			
MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	397	1	397	3	400	400	19	419	1	419	3	422	1	422	0	422	1	422
	Left-Through		0							0				0			0		
	Through	757	1	390	0	757	390	214	977	1	500	0	977	1	500	0	977	1	500
	Through-Right		1							1				1			1		
	Right	22	0	22	0	22	22	0	22	0	22	0	22	0	22	0	22	0	22
	Left-Through-Right		0							0				0			0		
Left-Right		0							0				0			0			
SOUTHBOUND	Left	8	1	8	0	8	8	2	10	1	10	0	10	1	10	0	10	1	10
	Left-Through		0							0				0			0		
	Through	280	2	119	0	280	119	120	402	2	181	0	402	2	181	0	402	2	181
	Through-Right		1							1				1			1		
	Right	77	0	77	1	78	78	63	141	0	141	1	142	0	142	0	142	0	142
	Left-Through-Right		0							0				0			0		
Left-Right		0							0				0			0			
EASTBOUND	Left	104	1	104	1	105	105	79	184	1	184	1	185	1	185	0	185	1	185
	Left-Through		0							0				0			0		
	Through	92	1	92	1	93	93	26	119	1	119	1	120	1	120	0	120	1	120
	Through-Right		0							0				0			0		
	Right	146	1	0	1	147	0	18	165	1	0	1	166	1	0	0	166	1	0
	Left-Through-Right		0							0				0			0		
Left-Right		0							0				0			0			
WESTBOUND	Left	23	1	23	0	23	23	0	23	1	23	0	23	1	23	0	23	1	23
	Left-Through		0							0				0			0		
	Through	87	0	104	1	88	105	7	95	0	116	1	96	0	117	0	96	0	117
	Through-Right		1							1				1			1		
	Right	17	0	0	0	17	0	4	21	0	0	0	21	0	0	0	21	0	0
	Left-Through-Right		0							0				0			0		
Left-Right		0							0				0			0			
CRITICAL VOLUMES		North-South: 516		North-South: 519		North-South: 600		North-South: 603		North-South: 603		North-South: 603		North-South: 603		North-South: 603		North-South: 603	
		East-West: 208		East-West: 210		East-West: 300		East-West: 302		East-West: 302		East-West: 302		East-West: 302		East-West: 302		East-West: 302	
		SUM: 724		SUM: 729		SUM: 900		SUM: 905		SUM: 905		SUM: 905		SUM: 905		SUM: 905		SUM: 905	
VOLUME/CAPACITY (V/C) RATIO:		0.508		0.512		0.632		0.635		0.635		0.635		0.635		0.635		0.635	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.408		0.412		0.532		0.535		0.535		0.535		0.535		0.535		0.535	
LEVEL OF SERVICE (LOS):		A		A		A		A		A		A		A		A		A	

REMARKS:

Version: 1i Beta; 8/4/2011

**PROJECT IMPACT**

Change in v/c due to project:	0.003	Δv/c after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



<b>I/S #:</b>	North-South Street: <b>Broadway</b>	Year of Count: <b>2018</b>	Ambient Growth: (%): <b>0.27</b>	Conducted by: <b>GTC</b>	Date:														
	East-West Street: <b>Bernard Street</b>	Projection Year: <b>2021</b>	Peak Hour: <b>PM</b>	Reviewed by:	Project: <b>942 N Broadway</b>														
No. of Phases: <b>3</b> Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity		NB-- <b>0</b> SB-- <b>0</b> EB-- <b>0</b> WB-- <b>0</b>	NB-- <b>0</b> SB-- <b>0</b> EB-- <b>0</b> WB-- <b>0</b>	NB-- <b>0</b> SB-- <b>0</b> EB-- <b>0</b> WB-- <b>0</b>	NB-- <b>0</b> SB-- <b>0</b> EB-- <b>0</b> WB-- <b>0</b>														
		NB-- <b>0</b> SB-- <b>0</b> EB-- <b>0</b> WB-- <b>0</b>	NB-- <b>0</b> SB-- <b>0</b> EB-- <b>0</b> WB-- <b>0</b>	NB-- <b>0</b> SB-- <b>0</b> EB-- <b>0</b> WB-- <b>0</b>	NB-- <b>0</b> SB-- <b>0</b> EB-- <b>0</b> WB-- <b>0</b>														
<b>MOVEMENT</b>		<b>EXISTING CONDITION</b>			<b>EXISTING PLUS PROJECT</b>			<b>FUTURE CONDITION W/O PROJECT</b>				<b>FUTURE CONDITION W/ PROJECT</b>				<b>FUTURE W/ PROJECT W/ MITIGATION</b>			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
<b>NORTHBOUND</b>	Left	292	1	292	1	293	293	8	302	1	302	1	303	1	303	0	303	1	303
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	1627	1	815	12	1639	821	218	1858	1	930	12	1870	1	936	0	1870	1	936
	Through-Right	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
	Right	2	0	2	0	2	2	0	2	0	2	0	2	0	2	0	2	0	2
<b>SOUTHBOUND</b>	Left	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	621	1	322	14	635	329	80	706	1	364	14	720	1	371	0	720	1	371
	Through-Right	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
	Right	22	0	22	0	22	22	0	22	0	22	0	22	0	22	0	22	0	22
<b>EASTBOUND</b>	Left	126	1	126	0	126	126	0	127	1	127	0	127	1	127	0	127	1	127
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	0	0	30	0	0	30	0	0	0	30	0	0	0	30	0	0	0	30
	Through-Right	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
	Right	30	0	0	0	30	0	0	30	0	0	0	30	0	0	0	30	0	0
<b>WESTBOUND</b>	Left	4	0	4	0	4	4	0	4	0	4	0	4	0	4	0	4	0	4
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	1	0	7	0	1	7	0	1	0	7	0	1	0	7	0	1	0	7
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	2	0	0	0	2	0	0	2	0	0	0	2	0	0	0	2	0	0
<b>CRITICAL VOLUMES</b>		North-South: 815 East-West: 133 SUM: 948	North-South: 821 East-West: 133 SUM: 954	North-South: 930 East-West: 134 SUM: 1064	North-South: 936 East-West: 134 SUM: 1070	North-South: 936 East-West: 134 SUM: 1070													
<b>VOLUME/CAPACITY (V/C) RATIO:</b>		0.665	0.669	0.747	0.751	0.751													
<b>V/C LESS ATSAC/ATCS ADJUSTMENT:</b>		<b>0.565</b>	<b>0.569</b>	<b>0.647</b>	<b>0.651</b>	<b>0.651</b>													
<b>LEVEL OF SERVICE (LOS):</b>		<b>A</b>	<b>A</b>	<b>B</b>	<b>B</b>	<b>B</b>													

REMARKS:

Version: 1i Beta; 8/4/2011

**PROJECT IMPACT**

Change in v/c due to project:	0.004	Δv/c after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



<b>I/S #:</b>	North-South Street: <b>Broadway</b>	Year of Count: <b>2018</b>	Ambient Growth: (%): <b>0.27</b>	Conducted by: <b>GTC</b>	Date:													
	East-West Street: <b>Bishops Road</b>	Projection Year: <b>2021</b>	Peak Hour: <b>PM</b>	Reviewed by:	Project: <b>942 N Broadway</b>													
No. of Phases: <b>2</b> Opposed Ø'ing: N/S-1, E/W-2 or Both-3? <b>0</b> Right Turns: FREE-1, NRTOR-2 or OLA-3? <b>0</b> ATCS-1 or ATCS+ATCS-2? <b>2</b> Override Capacity <b>0</b>		NB-- <b>0</b> SB-- <b>0</b> EB-- <b>0</b> WB-- <b>0</b>	NB-- <b>0</b> SB-- <b>0</b> EB-- <b>0</b> WB-- <b>0</b>	NB-- <b>0</b> SB-- <b>0</b> EB-- <b>0</b> WB-- <b>0</b>	NB-- <b>0</b> SB-- <b>0</b> EB-- <b>0</b> WB-- <b>0</b>													
<b>MOVEMENT</b>	<b>EXISTING CONDITION</b>		<b>EXISTING PLUS PROJECT</b>			<b>FUTURE CONDITION W/O PROJECT</b>				<b>FUTURE CONDITION W/ PROJECT</b>				<b>FUTURE W/ PROJECT W/ MITIGATION</b>				
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
<b>NORTHBOUND</b>	Left	1	18	0	18	18	16	34	1	34	0	34	1	34	0	34	1	34
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	2	830	12	1671	836	174	1846	2	923	12	1858	2	929	0	1858	2	929
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>SOUTHBOUND</b>	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	1	367	13	614	373	68	674	1	411	13	687	1	418	0	687	1	418
	Through-Right	1	132	0	132	132	15	148	0	148	0	148	0	148	0	148	0	148
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>EASTBOUND</b>	Left	0	160	0	160	160	12	173	0	173	0	173	0	173	0	173	0	173
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	28	188	2	30	190	14	42	0	215	2	44	0	217	0	44	0	217
<b>WESTBOUND</b>	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>CRITICAL VOLUMES</b>		North-South: 830 East-West: 188 SUM: 1018	North-South: 836 East-West: 190 SUM: 1026	North-South: 923 East-West: 215 SUM: 1138	North-South: 929 East-West: 217 SUM: 1146	North-South: 929 East-West: 217 SUM: 1146												
<b>VOLUME/CAPACITY (V/C) RATIO:</b>		0.679	0.684	0.759	0.764	0.764												
<b>V/C LESS ATCS/ATCS ADJUSTMENT:</b>		<b>0.579</b>	<b>0.584</b>	<b>0.659</b>	<b>0.664</b>	<b>0.664</b>												
<b>LEVEL OF SERVICE (LOS):</b>		<b>A</b>	<b>A</b>	<b>B</b>	<b>B</b>	<b>B</b>												

REMARKS:

Version: 1i Beta; 8/4/2011

**PROJECT IMPACT**

Change in v/c due to project:	<b>0.005</b>	Δv/c after mitigation:	<b>0.005</b>
Significant impacted?	<b>NO</b>	Fully mitigated?	<b>N/A</b>

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Broadway		Year of Count:	2018		Ambient Growth: (%):	0.27		Conducted by:	GTC		Date:						
	East-West Street:	Solano Avenue		Projection Year:	2021		Peak Hour:	PM		Reviewed by:			Project:	942 N Broadway					
No. of Phases		2		2		3		3		3		3		3		3			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0		0		0		0		0		0		0		0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0		
		EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0		
ATSAC-1 or ATSAC+ATCS-2?		2		2		2		2		2		2		2		2			
Override Capacity		0		0		0		0		0		0		0		0			
MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	423	1	423	4	427	427	68	494	1	494	4	498	1	498	0	498	1	498
	Left-Through		0							0				0				0	
	Through	1461	2	731	8	1469	735	30	1503	2	752	8	1511	2	756	0	1511	2	756
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	31	31	1	12	0	31	1	12	0	31	1	12
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
SOUTHBOUND	Left	0	0	0	0	0	0	30	30	1	30	0	30	1	30	0	30	1	30
	Left-Through		0							0				0				0	
	Through	655	2	328	13	668	334	59	719	2	360	13	732	2	366	0	732	2	366
	Through-Right		0							0				0				0	
	Right	182	1	182	0	182	182	0	183	1	183	0	183	1	183	0	183	1	183
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
EASTBOUND	Left	73	0	73	0	73	73	0	74	0	74	0	74	0	74	0	74	0	74
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	14	14	0	145	0	14	0	145	0	14	0	145
	Through-Right		0							0				0				0	
	Right	47	0	120	0	47	120	10	57	0	0	0	57	0	0	0	57	0	0
Left-Through-Right		0							1				1				1		
Left-Right		1							0				0				0		
WESTBOUND	Left	0	0	0	0	0	0	38	38	1	38	0	38	1	38	0	38	1	38
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	10	10	0	19	0	10	0	19	0	10	0	19
	Through-Right		0							1				1				1	
	Right	0	0	0	0	0	0	9	9	0	0	0	9	0	0	0	9	0	0
Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0		
CRITICAL VOLUMES		North-South:	751	North-South:	761	North-South:	854	North-South:	864	North-South:	864	North-South:	864	North-South:	864	North-South:	864	North-South:	864
		East-West:	120	East-West:	120	East-West:	183	East-West:	183	East-West:	183	East-West:	183	East-West:	183	East-West:	183	East-West:	183
		SUM:	871	SUM:	881	SUM:	1037	SUM:	1047	SUM:	1047	SUM:	1047	SUM:	1047	SUM:	1047	SUM:	1047
VOLUME/CAPACITY (V/C) RATIO:		0.581		0.587		0.728		0.735		0.735		0.735		0.735		0.735		0.735	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.481		0.487		0.628		0.635		0.635		0.635		0.635		0.635		0.635	
LEVEL OF SERVICE (LOS):		A		A		B		B		B		B		B		B		B	

REMARKS:

Version: 1i Beta; 8/4/2011

**PROJECT IMPACT**

Change in v/c due to project:	0.007	Δv/c after mitigation:	0.007
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Pasadena Avenue (west end)		Year of Count:	2018		Ambient Growth: (%):	0.27		Conducted by:	GTC		Date:						
	11	East-West Street:	Broadway		Projection Year:	2021		Peak Hour:	PM		Reviewed by:			Project:	942 N Broadway				
No. of Phases				3		3		3		3		3		3		3			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0		0		0		0		0		0		0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0 SB-- 0		0 0		0 0		0 0		0 0		0 0		0 0		0 0			
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0 WB-- 0		0 0		0 0		0 0		0 0		0 0		0 0		0 0			
Override Capacity				2		2		2		2		2		2		2			
				0		0		0		0		0		0		0			
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SOUTHBOUND	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left	1	0	0	0	1	0	1	0	0	0	1	0	0	0	1	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EASTBOUND	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	392	2	0	9	401	0	32	427	2	0	9	436	2	0	0	436	2	
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left	1019	1	560	5	1024	563	13	1040	1	523	5	1045	1	526	0	1045	1	526
WESTBOUND	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through	426	2	213	4	430	215	69	498	2	249	4	502	2	251	0	502	2	251
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	33	1	33	0	33	33	0	33	1	33	0	33	1	33	0	33	1	33
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CRITICAL VOLUMES		North-South: 0		North-South: 0		North-South: 0		North-South: 0		North-South: 0		North-South: 0		North-South: 0		North-South: 0		North-South: 0	
		East-West: 773		East-West: 778		East-West: 778		East-West: 772		East-West: 772		East-West: 777		East-West: 777		East-West: 777		East-West: 777	
		SUM: 773		SUM: 778		SUM: 778		SUM: 772		SUM: 772		SUM: 777		SUM: 777		SUM: 777		SUM: 777	
VOLUME/CAPACITY (V/C) RATIO:				0.542		0.546		0.542		0.542		0.545		0.545		0.545		0.545	
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.442		0.446		0.442		0.442		0.445		0.445		0.445		0.445	
LEVEL OF SERVICE (LOS):				A		A		A		A		A		A		A		A	

REMARKS:

Version: 1i Beta; 8/4/2011

**PROJECT IMPACT**

Change in v/c due to project:	0.003	Δv/c after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A