517 E. Broadway
Transportation Impact Analysis

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September 2019

TRAFFIC IMPACT STUDY
FOR THE
517 E BROADWAY PROJECT

GLENDALE, CALIFORNIA

September 2019

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CITY OF GLENDALE

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TABLE OF CONTENTS

APPENDICES

LIST OF FIGURES

LIST OF TABLES

1. INTRODUCTION

This report documents the assumptions, methodologies, and findings of a study conducted by Fehr & Peers to evaluate the potential traffic impacts of the proposed project located at 517 East Broadway between North Jackson Street and North Isabel Street in the City of Glendale. This study was conducted as part of an environmental documentation being prepared for the proposed Project.

PROJECT DESCRIPTION

The proposed Project is located at 517 East Broadway in the City of Glendale. The adjacent land uses include retail to the west, office use across Broadway to the south, and North Isabel Street to the east, and the Glendale Police Department building across an alley to the north. Figure 1 illustrates the location of the proposed Project in relation to the surrounding street system.

The project site is currently a medical office building and a surface parking lot. The Project as analyzed in this study involves the construction of a commercial office building with 9,299 square feet of medical office space, 20,655 square feet of general office space, and 2,299 square feet of ground floor retail space. The existing 3,976 square-foot office building will be demolished prior to the construction of the proposed Project. Figure 2 shows the project site plan. Access will be provided to underground parking via an entrance on the alley to the north side of the Project.

STUDY SCOPE

The scope of work, base assumptions, and technical methodologies for this study were determined in consultation with the City of Glendale.

TRAFFIC SCENARIOS

The study assumes that the Project would be completed by year 2021 and is directed at analyzing the potential Project-generated traffic impact on the local street system under both existing and future year traffic conditions. The following traffic scenarios have been developed and analyzed as part of this study:

- Existing Conditions – The analysis of existing traffic conditions is intended to provide a basis for the remainder of the study. The existing conditions analysis includes a description of the transportation system serving the project site, existing traffic volumes, and an assessment of the operating conditions at the study analysis locations described below.

- Existing plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under existing conditions with the addition of Project-generated traffic. The impacts of the proposed Project on existing traffic operating conditions were then identified.

- Future Base (Year 2021) Conditions – Future traffic projections without the proposed Project were developed for the year 2021. The objective of this analysis was to project future traffic growth and operating conditions that could be expected to result from regional growth, related projects, and transportation network changes near the project site by the year 2021.

- Future (Year 2021) plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under future conditions with the addition of Project-generated traffic. The impacts of the proposed Project on future traffic operating conditions were then identified.

STUDY LOCATIONS

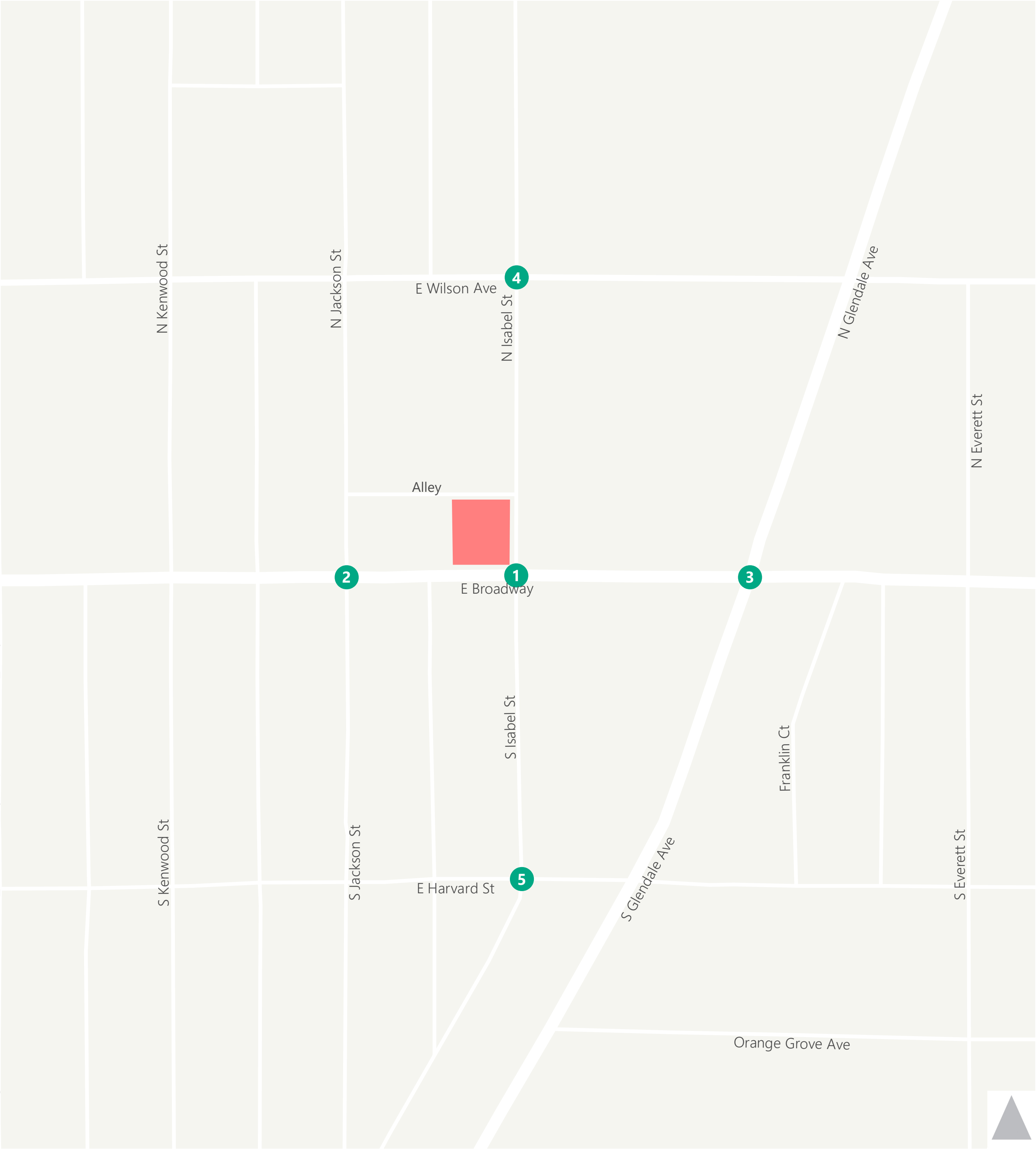
The following five intersections, illustrated in Figure 1, were identified in conjunction with City of Glendale staff to be analyzed as part of the scope of work for this Project:

1. Isabel Street & Broadway
2. Jackson Street & Broadway
3. Glendale Avenue & Broadway
4. Isabel Street & Wilson Avenue
5. Isabel Street & Harvard Street (unsignalized)

Lane configurations of the study intersections are provided in Appendix A.

ORGANIZATION OF REPORT

This report is divided into six chapters, including this introduction. Chapter 2 describes the existing conditions, including an inventory of streets, highways, and transit service in the study area, a summary of existing traffic volumes, and an assessment of existing operating conditions. The methodologies used to develop traffic forecasts for the Existing, Existing plus Project, Future Base, and Future plus Project scenarios, as well as the forecasts themselves, are included in Chapter 3. Chapter 4 presents an assessment of potential intersection traffic impacts of the proposed Project under both existing and future conditions. Chapter 5 provides an analysis of the Congestion Management Plan (CMP). Chapter 6 provides the summary and conclusions.



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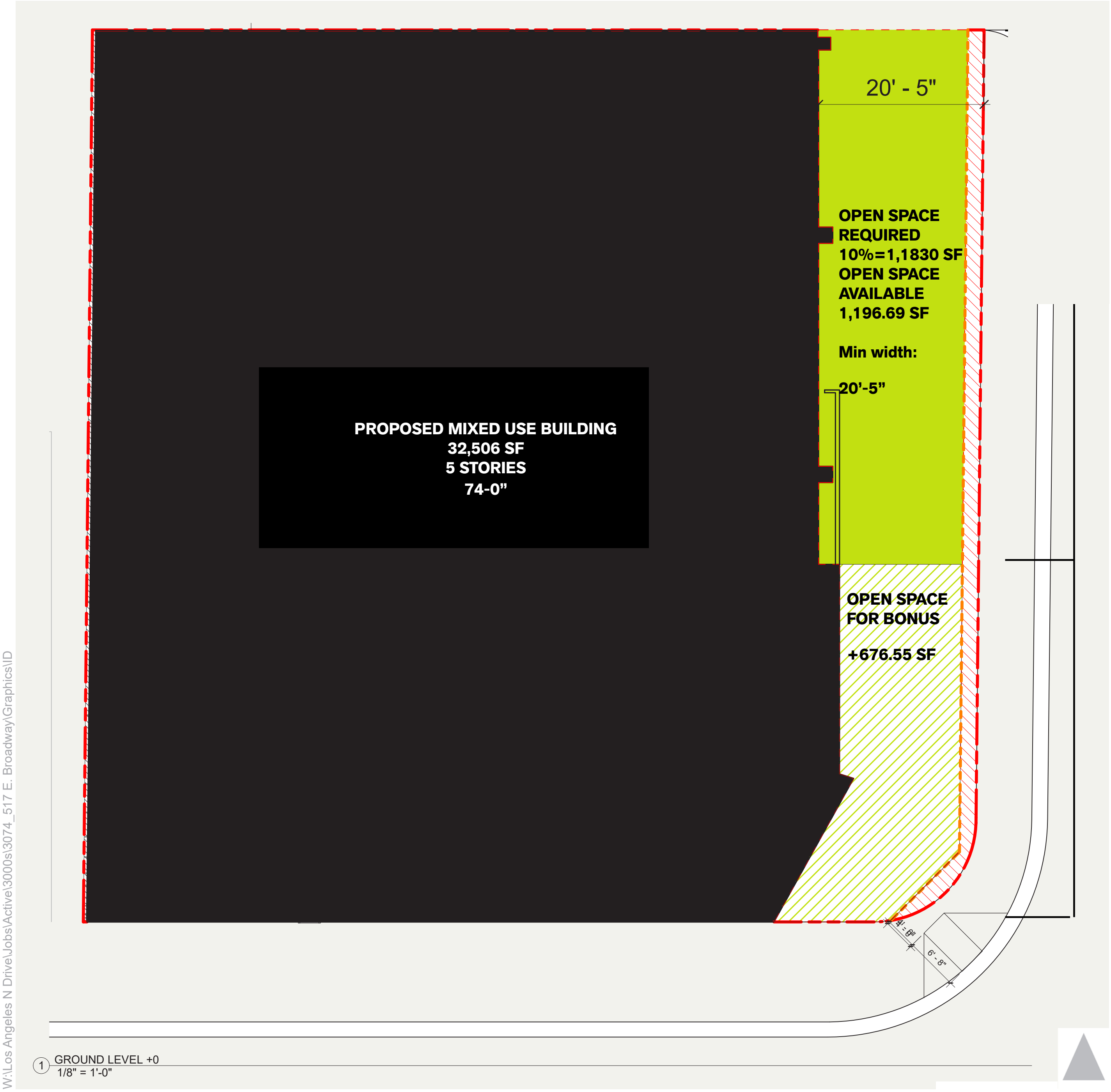
● Study Intersections

🟥 Project Site

Figure 1

Study Area



PROJECT TOTAL

Total Lot Area: 11,830.02 SF
Allowed Lot Coverage: 100%
Current Lot Coverage: 9,898.06 SF 84.55%
Required Open Space: 10%=1,1830 SF
Current Open Space: 1,873.24 SF
Current Open Space Ratio: 15.83%
Max. FAR Allowed by right: 2.50
29,575.05 SF

Max. FAR Allowed + Open Space
Incentive (15% Open space required):
2.75 = 32,532.55 SF
Current FAR: 32,506 SF

Figure 2
Site Plan

2. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions in the study area. The assessment of conditions relevant to this study includes a description of the study area, an inventory of the local street system in the vicinity of the project site, a review of traffic volumes on these facilities, an assessment of the resulting operating conditions, and a summary of the current transit service and bicycle and pedestrian facilities in the study area. A detailed description of these elements is presented in this chapter.

STUDY AREA

The project site is located within the Downtown Specific Plan area of the City of Glendale. The study area selected for analysis extends to include Jackson Street to the west, Wilson Avenue to the north, Harvard Street to the south, and Glendale Avenue to the east. All the streets in the study area are under the jurisdiction of the City of Glendale.

EXISTING STREET SYSTEM

The characteristics of the major roadways serving the study area are described below. The street descriptions include the designation of the roadway under *The Circulation Element of the General Plan* adopted by the City Council of the City of Glendale in August 1998.

Major arterials serving the study area include Brand Boulevard and Glendale Avenue in the north/south direction and Colorado Street in the east/west direction. State Route 134 lies approximately 0.7 miles north of the site, Interstate 5 lies approximately 1.7 miles to the west of the site, and State Route 2 lies approximately 1.3 miles east of the site. Each of these freeways provides regional access to and from the study area.

FREEWAYS

- **State Route 134** (Ventura Freeway) runs in an east/west direction and extends from US-101 eastward to Interstate 210 in Pasadena. In the vicinity of the study area, the freeway provides one carpool lane and four additional lanes in each direction. Ramps are provided at Goode Avenue and Sanchez Drive, as well as at Monterey Road and Glendale Avenue.

- **Interstate 5** (Golden State Freeway) runs in a north/south direction and extends from the Canadian border in Washington to the Mexican border, south of San Diego. In the vicinity of the study area, the freeway provides five lanes in each direction. Ramps are provided at Colorado Street.

- **State Route 2** (Glendale Freeway) runs in the southwest/northeast direction, extending from Glendale Boulevard in the City of Los Angeles through Angeles National Forest and the San Gabriel Mountains. In the vicinity of the study area, the Glendale Freeway provides five lanes in each direction. Ramps are provided at Colorado Boulevard.

EAST/WEST STREETS

- **Wilson Avenue** is designated as a Minor Arterial. Within the study area, Wilson Avenue has one travel lane in each direction. Left-turn lanes are provided at the intersections of Wilson Avenue and: Glendale Avenue, Isabel Street, Jackson Street, Louise Street, and Maryland Avenue. Both right and left turn lanes are provided at the intersection of Brand Boulevard and Wilson Avenue. A median turning lane exists between Maryland Avenue and Louise Street and between Isabel Street and Glendale Avenue. Parallel parking is permitted on both the north and south sides of the street, between Maryland Avenue and Isabel Street.

- **Broadway** is designated as a Minor Arterial. Broadway has two travel lanes in each direction in the study area. On-street parallel parking is available on both the north and south sides of the street between Glendale Avenue and Louise Street. A left-turn lane is provided at major intersections and a median turn lane exists between Maryland Avenue/Artsakh Avenue and Louise Street.

- **Harvard Street** is designated as an Urban Collector. Within the study area, Harvard Street has one travel lane in each direction. A left-turn lane is provided at the intersections of Harvard Street and: Brand Boulevard, Louise Street, Artsakh Avenue, and Glendale Avenue. A median turning lane is provided between Brand Boulevard and Louise Street. Parallel parking is permitted on the north side of the street between Glendale Avenue and Isabel Street. Parallel parking is available on both sides of the street between Isabel Street and Brand Boulevard.

- **Colorado Street** is designated as a Major Arterial. Colorado Street has two travel lanes in each direction within the study area. On-street parallel parking is permitted on both the north and south sides of the street between Jackson Street and Louise Street. A turning median lane is provided between Louise Street and Brand Boulevard. Left-turn lanes are provided at the intersections of Colorado Street and: Glendale Avenue, Louise Street, and Brand Boulevard.

NORTH/SOUTH STREETS

- **Jackson Street** is designated as an Urban Collector. Within the study area, Jackson Street has one travel lane in each direction, with parking permitted on both sides of the street. Only police vehicles are permitted to park on the east side of the street between Broadway and Wilson Avenue. A left-turn lane is provided at the intersection of Jackson Street and Wilson Avenue.

- **Isabel Street** is designated as a local street. Isabel Street has one travel lane in each direction, with parking permitted on both sides of the street.

- **Glendale Avenue** is designated as a Major Arterial with two travel lanes in each direction. A third northbound through lane is added in the PM peak period as on-street parking is prohibited from 4-6 PM. Left-turn lanes are provided at each intersection and a median turning lane provided between intersections. Right-turn lanes are provided in the southbound direction at the intersections with Wilson Avenue and Broadway. On-street parallel parking is provided on both sides of Glendale Avenue within the study area. It is designated as a suburban corridor in the South Glendale Community Plan.

- **Brand Boulevard** is designated as a Major Arterial with two travel lanes in the northbound direction and three travel lanes in the southbound direction between Wilson Avenue and Caruso Avenue and two travel lanes in the southbound direction between Caruso Avenue and Colorado Street. Right-and left-turn pockets are provided at major intersections. Diagonal and parallel parking is permitted on both sides of the street, except on the west side of the street between Wilson Avenue and Broadway and between Harvard Street and Caruso Avenue.

EXISTING PUBLIC TRANSIT SERVICE

The study area is served by several public transit agencies, including Glendale Beeline buses, Los Angeles County Metropolitan Transportation Authority (Metro) buses, and the Los Angeles Department of Transportation (LADOT) Commuter Express. Figure 3 shows the local transit routes near the project site and Table 1 summarizes the details of these transit routes. There are six local bus routes with stops within ¼-mile of the project site:

- Metro Line 90/91 (Glendale Avenue) – Line 90/91 runs from Downtown Los Angeles to Sylmar through Glendale, Tujunga, and San Fernando. During weekday peak periods, headways are approximately 15-minute headways. During weekends and off-peak periods, headways are approximately 30 minutes. The stop closest to the project site is at Glendale Avenue & Harvard Street.

- Metro Line 180/181 (Broadway) – Line 180/181 runs from Hollywood to Pasadena. Service headways are about 15 minutes in weekday peak periods and about 30 minutes during off-peak periods and weekends. The stop closest to the project is located at Broadway & Jackson Street.

- Metro Line 201 (Broadway) – Line 201 runs from Metro Wilshire/Vermont rail station in Los Angeles through Echo Park, Silver Lake, and Atwater Village to Glendale. Line 201 runs once per hour between 5 AM and 9 PM during weekdays and once per hour between 6 AM and 9 PM during weekends. The closest stop to the project is located at Broadway & Jackson Street.

- Glendale Beeline Route 3/31/32 (Glendale Avenue/Broadway) – Route 3/31/32 connect Glendale Galleria with several job centers north of Glendale. Route 3, the longest version of the line, runs between Glendale Galleria and the NASA Jet Propulsion Laboratory. Route 31 runs between Glendale Galleria and La Crescenta, and Route 32 runs between Glendale Galleria and Glendale College. Route 3 and 32 operate only on weekdays. Route 31 operates only on Saturday's. Route 3 offers 30-minute headways during peak periods and about 40-minute headways during off-peak periods. Route 32 runs primarily during off-peak periods and offers about 50-minute headways. Route 31 runs only on weekends and offers 30-minute headways. Route 3/31/32 is supported by routes 33 and 34 during weekdays. The stop closest to the project site is at Jackson Street & Broadway.

- Glendale Beeline Route 4 (Harvard Street/Broadway) – Route 4 provides service to Glendale Galleria primarily along Chevy Chase Drive. Headways are approximately 15 minutes during both peak and off-peak periods on weekdays. Headways are 25 minutes on weekends. The stop closest to the project site is on Glendale Avenue & Broadway.

- Glendale Beeline Route 11 (Brand Boulevard/Wilson Street/Colorado Street) – Route 11 provides service between the Glendale Transportation Center and Downtown Glendale. Service headways for 15 minutes are provided during the AM peak hour and 30 to 40 minutes during the PM peak hour, with no service on weekends. The stop closest to the project site is at Wilson Avenue & Glendale Avenue.

In addition, there are five rapid or express routes that operate within a two-mile radius of the project site:

- Metro Line 501 (State Route 134) – Line 501 runs from North Hollywood to Pasadena, providing express between the Metro Orange Line to the Gold Line. Headways are approximately 15 minutes during weekday peak periods and 30 minutes during weekday off-peak periods and on weekends. The stop closest to the project is at Brand Boulevard & Sanchez Drive.
- Metro Line 780 (Broadway/Central Avenue) – Rapid Line 780 runs from Los Angeles to Pasadena and provides 10 to 12 minute headways during weekday peak hours and 25 to 30 minutes during weekday off-peak hours. No weekend service is provided. The stop closest to the project is on Glendale Avenue & Broadway.
- Metro Line 794 (San Fernando Road) – Rapid Line 794 provides service from Downtown Los Angeles to Sylmar. This line operates with headways of approximately 15 to 20 minutes during the peak hours and no weekend service. The bus stop closest to the project is on Broadway & San Fernando Road.
- LADOT Commuter Express 409 (State Route 2) – Line 409 provides AM and PM peak hour service between Sylmar and Downtown Los Angeles via State Route 2 (Glendale Freeway). Headways are 20 to 30 minutes during the AM peak hour and 15 to 30 minutes during the PM peak hour. The stop closest to the project site is at the Glendale Park & Ride, located at Wilson Avenue & Harvey Drive.
- LADOT Commuter Express 549 (State Route 134) – Line 549 provides AM and PM peak hour service between Burbank and Pasadena via State Route 134 (Ventura Freeway). Headways are 25 to 30 minutes during the AM peak hour and 30 to 35 minutes during the PM peak hour. The stop closest to the project is at Brand Boulevard & Sanchez Drive.

EXISTING BICYCLE AND PEDESTRIAN FACILITIES

The City of Glendale maintains a network of 18 on-street bikeways. Figure 4 shows the existing designated bicycle facilities in the project area. As shown in the figure, Broadway, Harvard Street, Louise Street, and Cedar Street have Class III bike routes with sharrows within the project study area. The City of Glendale Bicycle Transportation Plan (2012) indicates that there are no proposed bikeways in the project study area, but to the north of the project study area, there are proposed bikeways on Lexington Drive, California Avenue, and Geneva Street.

A brief description of each bicycle facility type is provided below, as defined in the City of Glendale Bicycle Transportation Plan (2012):

- Class I Bikeway – Referred to as a bike path, shared-use path, or multi-purpose trail. Provides for bicycle travel on a paved right-of-way completely separated from any street or highway. Other users may also be found on this type of facility.
- Class II Bikeway – Referred to as a bike lane. Provides a striped lane for 1-way bicycle travel on a street or highway.
- Class III Bikeway – Referred to as a bike route. Provides for shared use with pedestrian or motor vehicle traffic.

- Class IV Bikeway – Referred to as a protected bike lane or cycle track. Provides a separated right-of-way for the exclusive use of bicyclists adjacent to a roadway.

The majority of arterials and local streets in the study area have a fully developed pedestrian network, interconnected by a variety of paved sidewalks, controlled crossings, access ramps, and painted crosswalks.

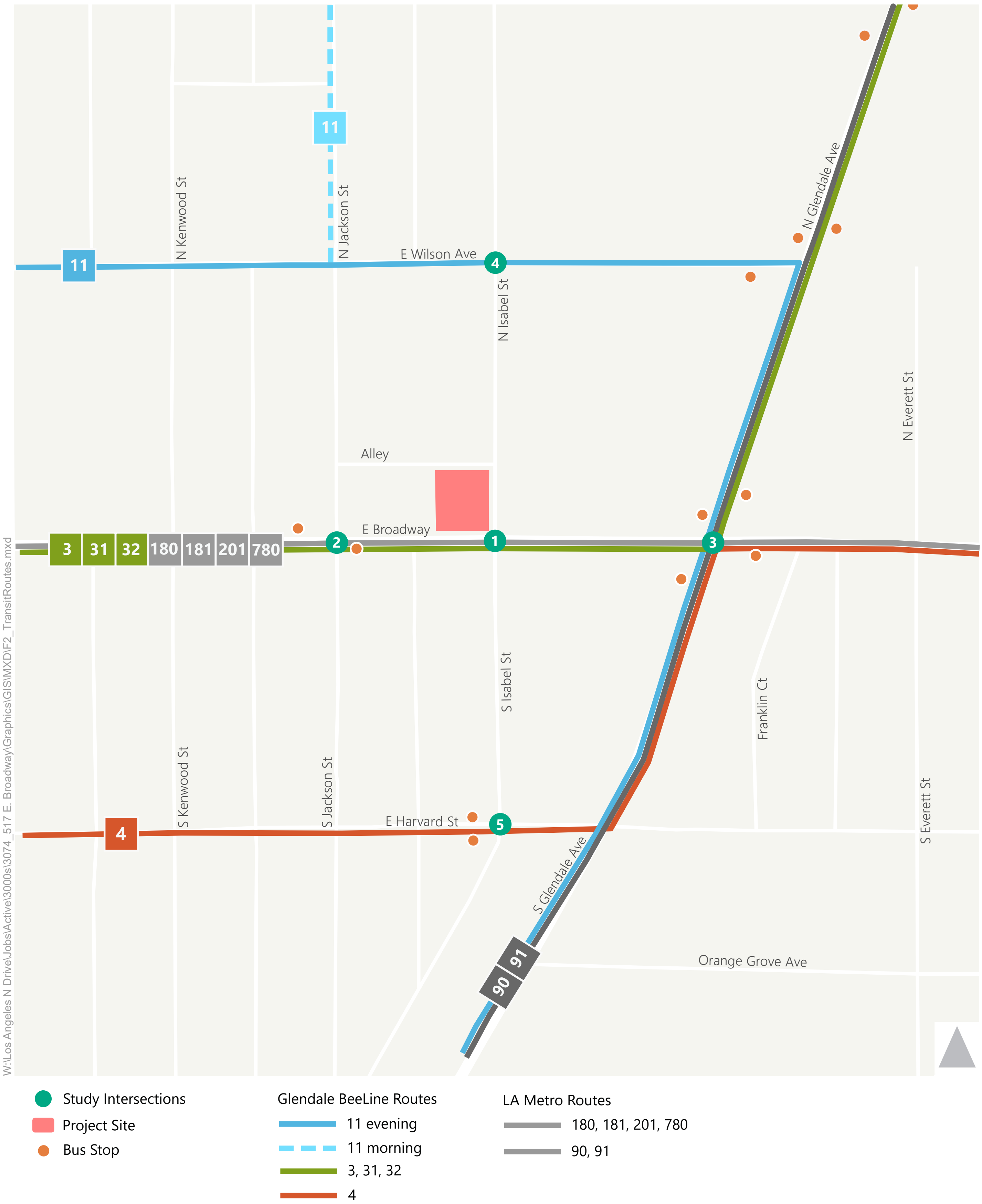
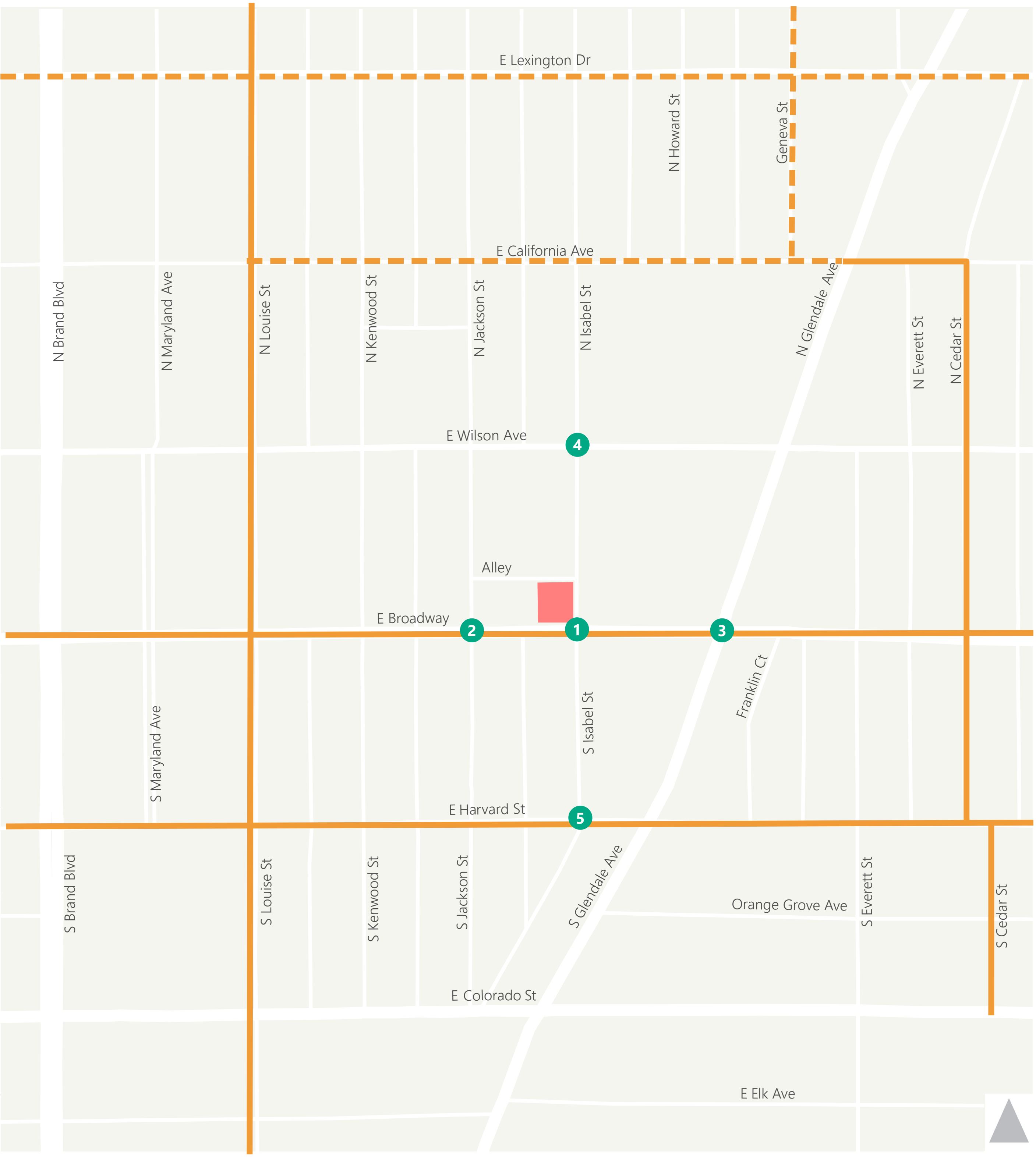


Figure 3

Transit Routes

TABLE 1
517 E BROADWAY PROJECT
EXISTING TRANSIT SERVICE

Line Number	Operator	Service Type	Service From	Via	Weekday Headways AM	Weekday Headways PM
Transit within 1/4 mile of Project Site						
90/91	Metro	Local	Downtown Los Angeles to Sylmar	Glendale Avenue	10-15	15 min
180/181	Metro	Local	Hollywood to Pasadena	Broadway	35 min	35 min
201	Metro	Local	Koreatown to Glendale	Broadway	50 min	50 min
3/31/32	Glendale Beeline	Shuttle & Circulator	Glendale Galleria to Jet Propulsion Laboratory	Glendale Avenue/Broadway	15-20 min	10-20 min
4	Glendale Beeline	Shuttle & Circulator	Roosevelt Middle School to Glendale Galleria	Harvard Street/Broadway	20 min	15-20 min
11	Glendale Beeline	Shuttle & Circulator	Glendale Transportation Center to Downtown Glendale	Brand Boulevard/Wilson Street/Colorado Street	15 min	30-40 min
Rapid or Express Transit within 2 miles of Project Site						
501	Metro	Express	North Hollywood to Pasadena	State Route 134	15 min	15 min
780	Metro	Rapid	Los Angeles to Pasadena	Broadway/Central Avenue	10-12 min	10-12 min
794	Metro	Rapid	Downtown Los Angeles to Sylmar	San Fernando Road	15-20 min	15-20 min
409	LADOT	Commuter Express	Sylmar to Downtown Los Angeles	State Route 2	15-20 min	15-30 min
549	LADOT	Commuter Express	Burbank to Pasadena	State Route 134	25-30 min	30-35 min



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● Study Intersections

🟥 Project Site

— Existing Class III

- - - Proposed Class III

Figure 4

Bike Routes

EXISTING TRAFFIC VOLUMES AND LEVEL OF SERVICE

This section presents existing base peak hour traffic volumes, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each, indicating volume-to-capacity (V/C) ratios, seconds of delay, and levels of service (LOS).

EXISTING TRAFFIC VOLUMES

Weekday AM and PM peak hour turning movement counts for five study intersections were collected in December 2018. The existing weekday morning and afternoon peak hour volumes at the study intersections are provided in Appendix A. Count sheets for these intersections are contained in Appendix B.

LEVEL OF SERVICE METHODOLOGY

The City of Glendale requires the use of the Intersection Capacity Utilization (ICU) methodology for traffic impact analysis on the operation of intersections. The ICU method measures an intersection’s capacity to serve all legs of an intersection within a complete signal phase cycle. ICU can also indicate how much reserve capacity the intersection has, or how much the intersection is over capacity. The V/C ratio is then used to find the corresponding LOS based on the definitions in Table 2A. Under the ICU methodology, a V/C ratio is generated for each study intersection based on factors such as the volume of traffic and the number of lanes providing for such vehicle movement and a LOS grade.

For the unsignalized intersection analysis, the *Highway Capacity Manual* (HCM) (Transportation Research Board, 2010) methodology was used to analyze the delay. Under HCM methodology, delay is calculated in seconds and given an LOS grade, as shown in Table 2B.

EXISTING LEVELS OF SERVICE

Existing year traffic volumes presented in Appendix A were analyzed using the intersection capacity analysis methodology and the HCM methodology described above to determine the existing operating conditions at the study intersections. Table 3 summarizes the results of the analysis of the existing weekday morning and afternoon peak hour V/C ratio or delay and corresponding LOS at each of the analyzed intersections. As depicted in Table 3, all five intersections analyzed for impacts operate at LOS C or better during both the AM and PM peak hours. Analysis sheets are provided in Appendix C.

TABLE 2A
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

Level of Service	Volume/Capacity Ratio	Definition
A	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	>0.600 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat what restricted within groups of vehicles.
C	>0.700 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	>0.800 - 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	>0.900 - 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.

TABLE 2B
HCM LEVEL OF SERVICE DEFINITIONS FOR UNSIGNALIZED INTERSECTIONS

Level of Service	Average Control Delay (seconds/vehicle)
A	≤ 10.0
B	> 10.0 and ≤ 15.0
C	> 15.0 and ≤ 25.0
D	> 25.0 and ≤ 35.0
E	> 35.0 and ≤ 50.0
F	> 50.0

Source: *Highway Capacity Manual,* Transportation Research Board, 2010.

TABLE 3
517 E BROADWAY PROJECT
EXISTING INTERSECTION LEVELS OF SERVICE

NO.	INTERSECTION	CONTROL TYPE	PEAK HOUR	EXISTING	
				V/C or DELAY (SEC.)	LOS
1	Isabel Street & Broadway	Signal	AM PM	0.434 0.501	A A
2	Jackson Street & Broadway	Signal	AM PM	0.509 0.577	A A
3	Glendale Avenue & Broadway	Signal	AM PM	0.591 0.660	A B
4	Isabel Street & Wilson Avenue	Signal	AM PM	0.494 0.697	A B
5	Isabel Street & Harvard Street	TWSC	AM PM	11.5 17.6	B C

Note: TWSC = Two-way stop control

3. TRAFFIC PROJECTIONS

The development of traffic forecasts for the proposed Project involves the use of a 3-step process: trip generation, trip distribution, and traffic assignment.

PROJECT TRIP GENERATION

As discussed in Chapter 1, the proposed Project consists of a mixed-use building with 9,299 square feet of medical office space, 20,655 square feet of general office space, and 2,299 square feet of ground floor retail space. Trip generation rates from *Trip Generation, 10th Edition* (Institute of Transportation Engineers [ITE], 2017) were used to estimate the number of trips associated with the project and are presented in Table 4. The ITE 10th edition introduces and defines the geographic setting for four different settings/locations: Rural, General Urban/Suburban, Dense Multi-Use Urban, and City Core. In many instances, trip generation rates are provided for each land use by geographic setting. The Project is located in an area that meets the General Urban/Suburban urban ITE definitions; therefore, the trip generation rates for General Urban/Suburban were used.

Per ITE 10th edition, pass-by credits were applied to portions of the development. A 10% pass-by credit was applied to the retail use. Pass-by credits account for the patrons making an intermediate stop on the way from an origin to a primary trip destination without a route diversion. These trips would be attracted from traffic passing the site on Broadway and other nearby streets. Due to the small number of trips generated by the Project, the pass-by trips were calculated to be zero.

Internal trip credits can be defined as a reduction that can be applied to the trip generation estimates for individual land uses to account for trips internal to the site. These are trips usually made via walking within the site. Based on discussions with City staff, no internal trip credits were used due to the relatively small trip generation.

In addition, an existing credit was applied to the trip generation due to the removal of the existing medical office building. The existing medical office is currently estimated to generate approximately 65 daily trips, 13 trips (10 inbound/3 outbound) during the AM peak hour and 15 trips (4 inbound/11 outbound) during the PM peak hour. These trips were subtracted from the Project’s overall trip generation as an existing use credit.

As shown in Table 4, the project is projected to generate an estimated net increase of 514 daily trips, including 62 trips (52 inbound/10 outbound) during the AM peak hour and 53 trips (14 inbound/39 outbound) during the PM peak hour.

PROJECT TRAFFIC DISTRIBUTION

The geographic distribution of trips generated by the proposed Project is dependent on characteristics of the street system serving the project site; the level of accessibility of routes to and from the proposed project site; locations of employment and commercial centers to which visitors of the Project would be drawn; and locations of residential areas from which employees would be drawn. The geographic distribution of trips generated by the proposed Project was developed using the City of Glendale travel demand model and based on discussions with City staff. The Project trips were assigned to the transportation network based on the project access. The proposed Project has an entrance on the alley on the north side of the Project, which can be accessed via Jackson Street and Isabel Street. The distribution of project trips is illustrated in Figure 5. Detailed trip distribution at the intersection level is provided in Appendix D.

PROJECT TRAFFIC ASSIGNMENT

The traffic to be generated by the proposed Project was assigned to the street network using the distribution pattern described in Figure 5. Appendix D provides the percent distribution and assignment of the proposed Project-generated peak hour traffic volumes at the analyzed intersections during the AM and PM peak hours. The assignment of traffic volumes took into consideration the locations of the proposed Project access on the alley to the north of the project site.

PROJECT DRIVEWAYS

Access will be provided to the underground parking structure via the alley on the north side of the project site. Vehicles can access the alley from Jackson Street and from Isabel Street.

TABLE 4
517 E BROADWAY PROJECT
PROJECT TRIP GENERATION ESTIMATES

Land Use	ITE Land Use Code	Size	Trip Generation Rates [a]							Estimated Trip Generation						
			Daily	AM Peak Hour			PM Peak Hour			Daily	AM Peak Hour Trips			PM Peak Hour Trips		
				Rate	In%	Out%	Rate	In%	Out%		In	Out	Total	In	Out	Total
PROPOSED PROJECT																
Medical Office [b]	720	9.299 ksf	Equation	Equation	78%	22%	Equation	28%	72%	270	21	6	27	10	24	34
Less: Pass-by [d]			*0%*	*0%*			*0%*			*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net External Vehicle Trips										270	21	6	27	10	24	34
Office [c]	710	20.655 ksf	Equation	Equation	86%	14%	Equation	16%	84%	230	40	6	46	4	21	25
Less: Pass-by [d]			*0%*	*0%*			*0%*			*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net External Vehicle Trips										230	40	6	46	4	21	25
Retail	820	2.299 ksf	37.75	0.94	62%	38%	3.81	48%	52%	87	1	1	2	4	5	9
Less: Pass-by [d]			*10%*	*10%*			*10%*			*(8)*	*0*	*0*	*0*	*0*	*0*	*0*
Net External Vehicle Trips										79	1	1	2	4	5	9
TOTAL PROJECT EXTERNAL VEHICLE TRIPS										**579**	**62**	**13**	**75**	**18**	**50**	**68**
EXISTING USE CREDIT																
Medical Office [b]	720	3.976 ksf	Equation	Equation	78%	22%	Equation	28%	72%	65	10	3	13	4	11	15
Less: Pass-by [d]			*0%*	*0%*			*0%*			*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net External Vehicle Trips										65	10	3	13	4	11	15
TOTAL EXISTING EXTERNAL VEHICLE TRIPS										**65**	**10**	**3**	**13**	**4**	**11**	**15**
TOTAL DRIVEWAY TRIPS										**587**	**62**	**13**	**75**	**18**	**50**	**68**
NET INCREMENTAL EXTERNAL VEHICLE TRIPS										**514**	**52**	**10**	**62**	**14**	**39**	**53**

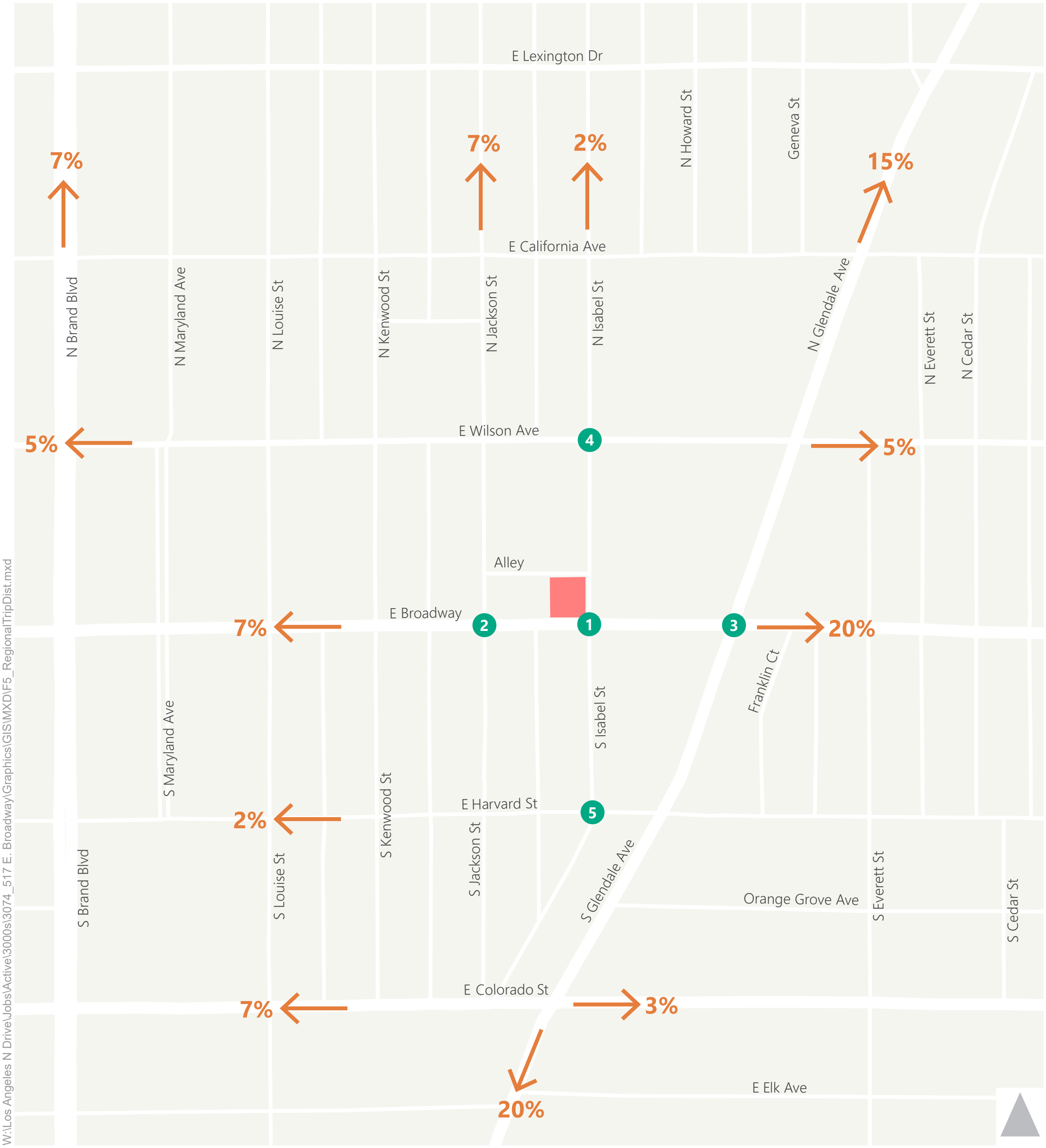
Notes:

[a] Source: Institute of Transportation Engineers (ITE), Trip Generation, 10th Edition, 2017, unless otherwise noted.

[b] ITE code 720 Medical-Dental Office Building was used with the General Urban/Suburban setting rate.
Daily Equation: T = 38.42(X) - 87.62
AM Equation: Ln(T) = 0.89Ln(X) + 1.31
PM Equation: T = 3.39(X) + 2.02

[c] ITE code 710 General Office Building was used with the General Urban/Suburban setting rate.
Daily Equation: Ln(T) = 0.97Ln(X) + 2.5
AM Equation: T = 0.94(X) + 26.49
PM Equation: Ln(T) = 0.95Ln(X) +0.36

[d] The pass-by credit is based on data available in the ITE, Trip Generation Handbook, 3rd Edition, 2014.



- ● Study Intersections
- 🟥 Project Site

Figure 5

Regional Trip Distribution

EXISTING PLUS PROJECT TRAFFIC CONDITIONS

The Project traffic estimated and assigned to the study intersections was added to the existing traffic volumes to estimate Existing plus Project traffic volumes. Turning movement traffic volumes for the Existing plus Project scenario are provided in Appendix A. Analysis sheets are provided in Appendix C.

FUTURE YEAR 2021 TRAFFIC CONDITIONS

To evaluate the potential impacts of the proposed Project on future (Year 2021) conditions, it was necessary to develop estimates of future traffic conditions in the area both without and with Project traffic. First, estimates of traffic growth were developed for the study area to forecast future conditions without the Project. These forecasts included traffic increases as a result of both regional ambient traffic growth and traffic generated by specific developments in the vicinity of the Project (related projects).

These projected traffic volumes, identified herein as the Future Base conditions, represent the future conditions without the proposed Project. The traffic generated by the proposed Project was then estimated and assigned to the surrounding street system. Project traffic was added to the Future Base conditions to form Future (year 2021) plus Project traffic conditions, which were analyzed to determine the incremental traffic impacts attributable to the Project itself.

The assumptions and analysis methodology used to develop each of the future year scenarios discussed above are described in more detail in the following sections.

BACKGROUND OR AMBIENT GROWTH

Based on historic trends and at the direction of City of Glendale, it was established that an ambient growth factor of 1% per year should be applied to adjust the existing base year traffic volumes to reflect the effects of regional growth and development by year 2021. This adjustment was applied to the existing (year 2018) traffic volume data to reflect the effect of ambient growth by the year 2021.

RELATED PROJECT TRAFFIC GENERATION AND ASSIGNMENT

Future Base traffic forecasts include the effects of known specific projects, called related projects, expected to be implemented in the vicinity of the proposed project site prior to the buildout date of the proposed Project. The list of related projects was prepared based on data from City of Glendale. A total of 59 cumulative projects were identified in the study area; these projects are listed in Table 5 and illustrated in Figure 6.

Trip Generation

Trip generation estimates for the related projects were calculated using a combination of previous study findings, publicly available environmental documentation, and trip generation rates contained in *Trip Generation, 10th Edition*. Table 5 presents the resulting trip generation estimates for these related projects. These projections are conservative in that they do not in every case account for either the existing uses to be removed or the possible use of non-motorized travel modes (transit, walking, etc.). Traffic mitigation measures associated with the related projects are also not in every case accounted for in the analysis.

Trip Distribution

The geographic distribution of the traffic generated by the related projects is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which employees and potential patrons of proposed commercial developments may be drawn, the locations of employment and commercial centers to which residents of residential projects may be drawn, and the location of the projects in relation to the surrounding street system. Additionally, if the traffic study or environmental document for a related project was available, the trip distribution from that study was used.

Traffic Assignment

Using the estimated trip generation and trip distribution patterns described above, traffic generated by the related projects was assigned to the street network.

TRANSPORTATION INFRASTRUCTURE PROJECTS

There are no infrastructure changes in the study area planned for implementation by 2021. Therefore, network changes were not included in the analysis.

FUTURE YEAR 2021 BASE TRAFFIC VOLUMES

Future year 2021 base weekday AM and PM peak hour traffic volumes and lane geometries for the analyzed intersections are provided in Appendix A. The Future Base traffic conditions represent an estimate of future conditions without the proposed Project inclusive of the ambient background growth and related projects traffic.

FUTURE PLUS PROJECT TRAFFIC PROJECTIONS

The proposed Project traffic volumes were added to the year 2021 Future Base traffic projections, resulting in Future (year 2021) plus Project AM and PM peak hour traffic volumes. As provided in Appendix A, the Future (year 2021) plus Project scenario presents future traffic conditions with the completion of the proposed Project.

TABLE 5
517 E BROADWAY PROJECT
RELATED PROJECTS TRIP GENERATION ESTIMATES

No.	Project Location [a]	Land Use	ITE Land Use Code	Size	Trip Generation [b]						
					Daily	AM			PM		
						IN	OUT	TOTAL	IN	OUT	TOTAL
1	201 W. Lexington and 418 N. Central Ave	Multi-Family	[c]	464 du	3,613	7	215	222	135	-19	116
		Live/Work	[c]	25 du							
		Commercial	[c]	8.140 ksf							
2	130 N. Central Ave.	Multi-Family	220	153 du	1,305	19	56	75	63	42	105
		Commercial (Option A)	820	4.9 ksf							
		Live/Work (Option B)	220	5 du							
3	3901-3915 San Fernando Rd.	Multi-Family	220	142 du	1,514	22	56	78	73	54	127
		Commercial	820	11.6 ksf							
		Studio	220	5 ksf							
4	525 W. Elk Ave.	Congregate Facility	253	101 du	204	4	3	7	10	8	18
5	507-525 W. Colorado St.	Multi-Family	220	90 du	1,323	49	43	92	51	65	116
		Medical Office	720	18.0 ksf							
		Commercial	820	1.00 ksf							
6	619 S. Pacific Ave.	Multi-Family	220	27 du	198	3	9	12	9	6	15
7	525 W. Broadway	Multi-Family	220	176 du	2,004	30	70	100	96	74	170
		Live/Work	220	4 du							
		Commercial	820	18.2 ksf							
8	413 N. Brand Blvd.	Multi-Family	220	228 du	1,858	27	83	110	90	57	147
		Commercial	820	5 ksf							
9	1407 W. Glenoaks Blvd.	Multi-Family	220	55 du	403	6	19	25	20	11	31
10	1001 E. Colorado St.	Hotel	310	134 rooms	1,120	37	26	63	41	39	80
11	1100-1108 N. Brand Blvd.	Hotel	310	85 rooms	711	24	16	40	26	25	51
12	2612 Honolulu Ave.	Multi-Family	220	28 du	205	3	10	13	10	6	16
13	429-503 N. Kenwood St.	Multi-Family	220	21 du	154	2	8	10	8	4	12
14	500 E. Colorado St.	Medical Office	720	30.8 ksf	1,383	72	22	94	45	93	138
		Retail	820	8.2 ksf							
15	126 S. Kenwood St.	Multi-Family	220	44 du	322	5	15	20	16	9	25
16	800 W. Doran St	Multi-Family	220	52 du	381	6	18	24	18	11	29
17	1838 S. Brand Blvd	Multi-Family	220	80 du	586	9	28	37	28	17	45
18	1815-1821 S. Brand Blvd.	Multi-Family	220	38 du	287	5	13	18	13	9	22
		Commercial/Office	710	0.95 ksf							
19	4201 Pennsylvania Ave.	Multi-Family	220	30 du	220	3	11	14	11	6	17
20	145 N. Louise St.	Hotel	310	147 rooms	1,229	41	28	69	45	43	88
21	120 W. Colorado	Hotel	[c]	131 rooms	666	29	21	50	26	27	53
22	1820 S Brand Blvd.	Live/Work	220	28 du	205	3	10	13	10	6	16
23	352-358 W. Milford St.	Affordable Multi-Family	220	32 du	234	3	12	15	11	7	18
24	1412-1422 5th St & 1116 Sonora Ave.	Affordable Senior	251	66 du	282	5	11	16	12	8	20
25	610 N. Brand Blvd.	Multi-Family	220	265 du	1,940	28	94	122	93	55	148
26	601 N. Brand Blvd	Multi-family	220	604 du	5,115	75	220	295	247	161	408
		Commercial	820	18.39 ksf							
27	401 Hawthorne St.	Multi-Family	220	23 du	168	3	8	11	8	5	13
28	206 W. Chevy Chase	Medical Office	720	21.124 ksf	735	46	13	59	20	53	73
29	129 W. Los Feliz Rd.	Congregate Facility	253	80 ksf	162	4	2	6	7	7	14
30	361-365 Myrtle St.	Condominium	220	15 du	110	2	5	7	5	3	8
31	452 W. Milford	Affordable Multi-Family	220	15 du	110	2	5	7	5	3	8
32	130 W. Eulalia	Medical Office	720	4.074 ksf	142	9	2	11	4	10	14
33	534 N. Kenwood St.	Multi-Family	220	11 du	81	1	4	5	4	2	6
34	350 Salem St.	Condominium	220	12 du	88	1	5	6	4	3	7
35	532 W. Elk Ave.	Condominium	220	6 du	44	1	2	3	2	1	3
36	712 S. Louise St	Multi-Family	220	10 du	73	1	4	5	4	2	6
37	611 E. Acacia	Multi-Family	220	14 du	102	1	5	6	5	3	8
38	722 E. Acacia Ave.	Multi-Family	220	14 du	102	1	5	6	5	3	8
39	913-921 S. Adams St.	Multi-Family	220	18 du	132	2	6	8	6	4	10
40	1017 San Rafael Ave.	Condominium	220	5 du	37	0	2	2	2	1	3
41	220 N. Brand Blvd.	Restaurant	932	4.900 ksf	550	27	22	49	30	18	48
42	223 N. Jackson St.	Multi-Family	220	192 du	1,405	20	68	88	68	40	108
43	1058 Roberta Ave.	Congregate Facility	253	5.533 ksf	11	0	0	0	1	0	1
44	373 W. Doran St.	Multi-Family	220	5 du	37	0	2	2	2	1	3
45	634-700 E. Lomita Ave.	Multi-Family	220	6 du	44	1	2	3	2	1	3
46	463 Salem St.	Multi-Family	220	10 du	73	1	4	5	4	2	6
47	344 W. Milford St.	Multi-Family	220	6 du	44	1	2	3	2	1	3
48	512 W. Doran St.	Multi-Family	220	4 du	29	0	2	2	1	1	2
49	400 W Colorado St.	Medical Office	720	2.239 ksf	124	9	2	11	3	10	13
		General Office	710	4.697 ksf							
50	337 N. Cedar St.	Multi-Family	220	4 du	29	0	2	2	1	1	2
51	708 E. Palmer	Multi-Family	220	2 du	15	0	1	1	1	0	1
52	115 N. Adams St.	Multi-Family	220	4 du	29	0	2	2	1	1	2
53	518 E. Windsor	Multi-Family	220	34 du	249	4	12	16	12	7	19
54	600 W Wilson Ave.	Multi-Family	220	3 du	22	0	1	1	1	1	2
55	518 Glenwood Rd.	Multi-Family	220	6 du	44	1	2	3	2	1	3
56	238 Concord Street	Multi-Family	220	13 du	95	1	5	6	4	3	7
57	604-610 W. Broadway	Medical Office	720	20.959 ksf	782	46	13	59	22	56	78
		Retail	820	1.394 ksf							
58	520 N. Central	Multi-Family	220	99 du	725	11	35	46	35	20	55
59	Central Park [d]	Museum	580	59.800 ksf	170	15	2	17	2	9	11

Notes:

du = dwelling unit

ksf = one thousand square feet

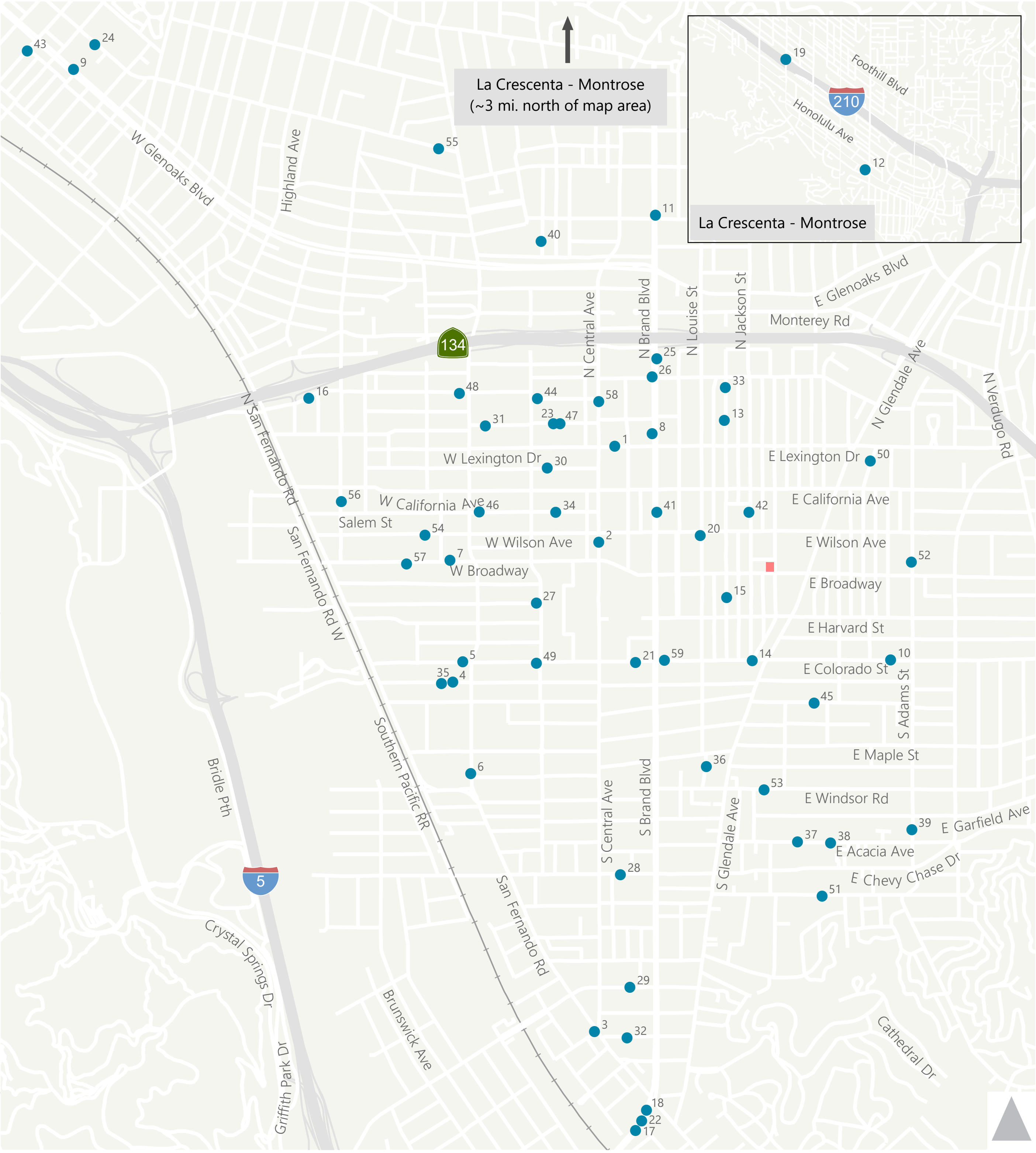
Multi-Family, Affordable Multi-Family, Live/Work, Studios, and Condominiums have been treated as Apartments for trip generation purposes.

[a] Related projects were provided by City of Glendale as of April 2018.

[b] Trip generation rates were assumed from the ITE Trip Generation Manual, 10th Edition (2017), unless noted otherwise.

[c] Trip generation rates from transportation impact studies approved by the City.

[d] The ITE Trip Generation Manual, 10th Edition, does not have daily rates for museums. The highest peak hour trip generation was multiplied by ten to estimate the daily trip generation.



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🟥 Project Site

● Related Projects

Figure 6

Related Projects

4. INTERSECTION TRAFFIC IMPACTS

The traffic impact analysis evaluates the projected LOS at each study intersection under the Existing plus Project and Future (year 2021) plus Project conditions to estimate the incremental increase in the V/C ratio or delay caused by the proposed Project. This provides the information needed to assess the potential impact of the Project using significance criteria established by City of Glendale.

INTERSECTION SIGNIFICANT TRAFFIC IMPACT CRITERIA

Under the City's guidelines, a Project generates a "significant and adverse" impact at a signalized intersection if the with-Project volume-to-capacity increases by 0.02 or more and LOS D, E, or F occurs.

At stop-controlled intersections, a Project generates a "significant and adverse" impact if Project traffic causes an increase in intersection delay of 3 or more seconds and LOS D, E, or F occurs.

EXISTING PLUS PROJECT IMPACT ANALYSIS

EXISTING PLUS PROJECT TRAFFIC LEVEL OF SERVICE

The Existing plus Project traffic volumes presented in Appendix A were analyzed to determine the projected V/C ratios and LOS for each of the analyzed intersections under this scenario. Table 6 summarizes the Existing plus Project LOS. Analysis sheets are provided in Appendix C. As indicated in Table 6, all five study intersections are projected to operate at LOS C or better during both peak hours under Existing Plus Project conditions.

EXISTING PLUS PROJECT INTERSECTION IMPACTS

As shown in Table 6, after applying the aforementioned City of Glendale significant impact criteria, it is determined that the proposed Project would not result in significant impacts under Existing plus Project conditions at any of the study intersections. No mitigation measures are therefore required.

TABLE 6
517 E BROADWAY PROJECT
EXISTING PLUS PROJECT INTERSECTION LEVELS OF SERVICE AND IMPACT ANALYSIS

NO.	INTERSECTION	PEAK HOUR	EXISTING		EXISTING + PROJECT		V/C or DELAY INCREASE	SIGNIFICANT IMPACT?
			V/C or DELAY (SEC.)	LOS	V/C or DELAY (SEC.)	LOS		
1	Isabel Street &	AM	0.434	A	0.448	A	0.014	NO
	Broadway	PM	0.501	A	0.516	A	0.015	NO
2	Jackson Street &	AM	0.509	A	0.511	A	0.002	NO
	Broadway	PM	0.577	A	0.578	A	0.001	NO
3	Glendale Avenue &	AM	0.591	A	0.602	B	0.011	NO
	Broadway	PM	0.660	B	0.667	B	0.007	NO
4	Isabel Street &	AM	0.494	A	0.495	A	0.001	NO
	Wilson Avenue	PM	0.697	B	0.699	B	0.002	NO
5	Isabel Street &	AM	11.5	B	11.5	B	0.0	NO
	Harvard Street	PM	17.6	C	17.5	C	-0.1	NO

Note: Intersection 5 is analyzed using HCM 2010 TWSC methodology.

The decrease in delay at Intersection 5 during the PM peak period is due to the HCM formula that calculates the capacity of a shared lane as a volume-weighted average. Since the project is adding one southbound right-turn movement at this intersection, the capacity of the southbound approach slightly increases, thus leading to a decrease in the delay for this approach.

FUTURE (2021) PLUS PROJECT IMPACT ANALYSIS

FUTURE BASE TRAFFIC CONDITIONS

The year 2021 Future Base peak hour traffic volumes were analyzed to determine the projected V/C ratio and LOS for each of the analyzed intersections. Table 7 summarizes the future LOS. As shown in Table 7, all five study intersections are projected to operate at LOS C or better during the morning and afternoon peak hours under Future Base conditions.

FUTURE PLUS PROJECT TRAFFIC CONDITIONS

The resulting Future (year 2021) plus Project peak hour traffic volumes, provided in Appendix A, were analyzed to determine the projected future operating conditions with the addition of the proposed Project traffic. The results of the Future (year 2021) plus Project analysis are also presented in Table 7, with analysis sheets provided in Appendix C. As shown in Table 7, all five study intersections are projected to operate at LOS C or better during the morning and afternoon peak hours under Future Plus Project conditions.

FUTURE YEAR 2021 PLUS PROJECT INTERSECTION IMPACTS

As shown in Table 7, after applying the aforementioned City of Glendale significant impact criteria, it is determined that the proposed Project would not result in significant impacts under Future plus Project conditions at any of the study intersections. No mitigation measures are therefore required.

TABLE 7
517 E BROADWAY PROJECT
FUTURE YEAR (2021) PLUS PROJECT INTERSECTION LEVELS OF SERVICE AND IMPACT ANALYSIS

NO.	INTERSECTION	PEAK HOUR	FUTURE (2021)		FUTURE (2021) + PROJECT		V/C or DELAY INCREASE	SIGNIFICANT IMPACT?
			V/C or DELAY (SEC.)	LOS	V/C or DELAY (SEC.)	LOS		
1	Isabel Street &	AM	0.452	A	0.467	A	0.015	NO
	Broadway	PM	0.525	A	0.541	A	0.016	NO
2	Jackson Street &	AM	0.548	A	0.551	A	0.003	NO
	Broadway	PM	0.613	B	0.615	B	0.002	NO
3	Glendale Avenue &	AM	0.630	B	0.643	B	0.013	NO
	Broadway	PM	0.701	C	0.708	C	0.007	NO
4	Isabel Street &	AM	0.519	A	0.519	A	0.000	NO
	Wilson Avenue	PM	0.738	C	0.739	C	0.001	NO
5	Isabel Street &	AM	11.6	B	11.7	B	0.1	NO
	Harvard Street	PM	18.3	C	18.3	C	0.0	NO

Note: Intersection 5 is analyzed using HCM 2010 TWSC methodology.

5. REGIONAL TRANSPORTATION SYSTEM IMPACT ANALYSIS

This section presents an analysis of potential impacts on the regional transportation system. This analysis was conducted in accordance with the procedures outlined in *Congestion Management Program for Los Angeles County* (CMP) (Metro, 2010). The CMP requires that, when an environmental impact report is prepared for a project, traffic and transit impact analyses be conducted for select regional facilities based on the quantity of project traffic expected to use those facilities.

The CMP guidelines require that the first issue to be addressed is the determination of the geographic scope of the study area. The criteria for determining the study area for CMP arterial monitoring intersections and for freeway monitoring locations are:

- All CMP arterial monitoring intersections where the proposed Project will add 50 or more trips during either the AM or PM peak hours of adjacent street traffic.
- All CMP mainline freeway monitoring locations where the proposed Project will add 150 or more trips, in either direction, during either the AM or PM peak hours.

SIGNIFICANT TRAFFIC IMPACT CRITERIA

The CMP traffic impact analysis guidelines establish that a significant project impact occurs when a certain threshold is exceeded. If the proposed Project increases traffic demand on a CMP facility by 2% of capacity ($V/C \geq 0.02$), causing LOS F ($V/C > 1.00$), a significant impact would occur. If the facility is already at LOS F, a significant impact occurs when the proposed Project increases traffic demand on a CMP facility by 2% of capacity ($V/C \geq 0.02$).

ARTERIAL MONITORING ANALYSIS

None of the study area intersections are CMP arterial monitoring locations. The CMP arterial monitoring station closest to the proposed project site is located at Angeles Crest Highway and I-210 Westbound Off-Ramp located approximately 5 miles from the project site. Based on the Project trip distribution and trip generation, the Project is not expected to add 50 peak hour vehicle trips through the CMP arterial monitoring station. Project trips are anticipated to disperse among the transportation network due to the extended distance between the project site and the monitoring station. The proposed Project is not expected to add enough new traffic to exceed the arterial analysis criteria of 50 vehicle trips at the above-mentioned location. Therefore, no further CMP arterial analysis is required.

FREEWAY ANALYSIS

Regional access to the project site is provided by the State Route (SR) 134 approximately 0.7 miles north of the site, Interstate 5 lies approximately 1.7 miles to the west of the site, and SR 2 lies approximately 1.3 miles east of the site. The CMP freeway monitoring station closest to the project site is the SR-134 Freeway at Brand Boulevard.

According to the trip generation estimates shown in Table, 4, the project is expected to generate 62 trips in the AM peak hour and 53 trips in the PM peak hour. Since fewer than 150 trips would be added during the

AM or PM peak hours in either direction at any of the freeway segments in the vicinity of the study area, no further analysis of the freeway segments is required for CMP purposes.

REGIONAL TRANSIT IMPACT ANALYSIS

Potential increases in transit person trips generated by the proposed Project were estimated. Appendix B-4 of the 2010 CMP provides a methodology for estimating the number of transit trips expected to result from a proposed Project based on the projected number of vehicle trips. This methodology assumes an average vehicle ridership (AVR) factor of 1.4 in order to estimate the number of person trips to and from the project and then provides guidance regarding the percentage of person trips assigned to public transit depending on the type of use (commercial/other versus residential) and the proximity to transit services. Appendix B-4 of the 2004 CMP recommends observing the fixed-route local bus services within ¼ mile of the project site and express bus routes and rail service within two miles of the project site.

The project site is served by a moderate level of public transit. Figure 3 shows the various bus routes and transit lines providing service in the study area. As part of the trip generation estimates presented in Table 4, the proposed Project would have an estimated increase in vehicle trip generation of approximately 62 vehicle trips during the AM peak hour and 53 during the PM peak hour. Applying the AVR factor of 1.4 to the estimated vehicle trips would result in an estimated increase of approximately 87 and 74 person trips during the AM and PM peak hours, respectively.

Several routes within a ¼ mile of the Project are included in the CMP Transit Monitoring Network, including Metro 180/181, 780, 794, LADOT 409 and 549. Given the relatively small trip generation of the project, no transit credit was applied to the project trip generation estimates. According to Appendix D.8.4 of the 2010 CMP, it is assumed that 3.5 percent of total person trips generated by the project are assigned to transit. Applying the 3.5 percent transit trips, the project would generate an estimated increase of 3 transit trips during the AM peak hour and 3 transit trips during the PM peak hour. Given the frequency of the transit service in close proximity to the project site, the incremental transit riders resulting from the Project are not anticipated to result in a significant impact on the transit lines serving the area.

6. SUMMARY AND CONCLUSIONS

This study was undertaken to analyze the potential traffic impacts of the proposed development at 517 E Broadway in the City of Glendale. The following summarizes the results of this analysis:

- The Project involves the construction of a mixed-use building with 9,299 square feet of medical office space, 20,655 square feet of general office space, and 2,299 square feet of ground floor retail space.
- The proposed Project is located on Broadway between Jackson Street and Isabel Street. Access will be provided to the underground parking structure via the alley on the north side of the project.
- The project would generate an estimated net increase of 514 daily vehicle trips, including 62 trips during the AM peak hour and 53 trips during the PM peak hour.
- The Level of Service analysis determined that the Project would not result in significant impacts at any of the study intersections under Existing plus Project and Future plus Project scenarios. No mitigation measures are therefore required.

REFERENCES

2010 Highway Capacity Manual, Transportation Research Board, 2010.

City of Glendale Circulation Element, City of Glendale, August 1998.

City of Glendale Bicycle Transportation Plan, City of Glendale, 2012.

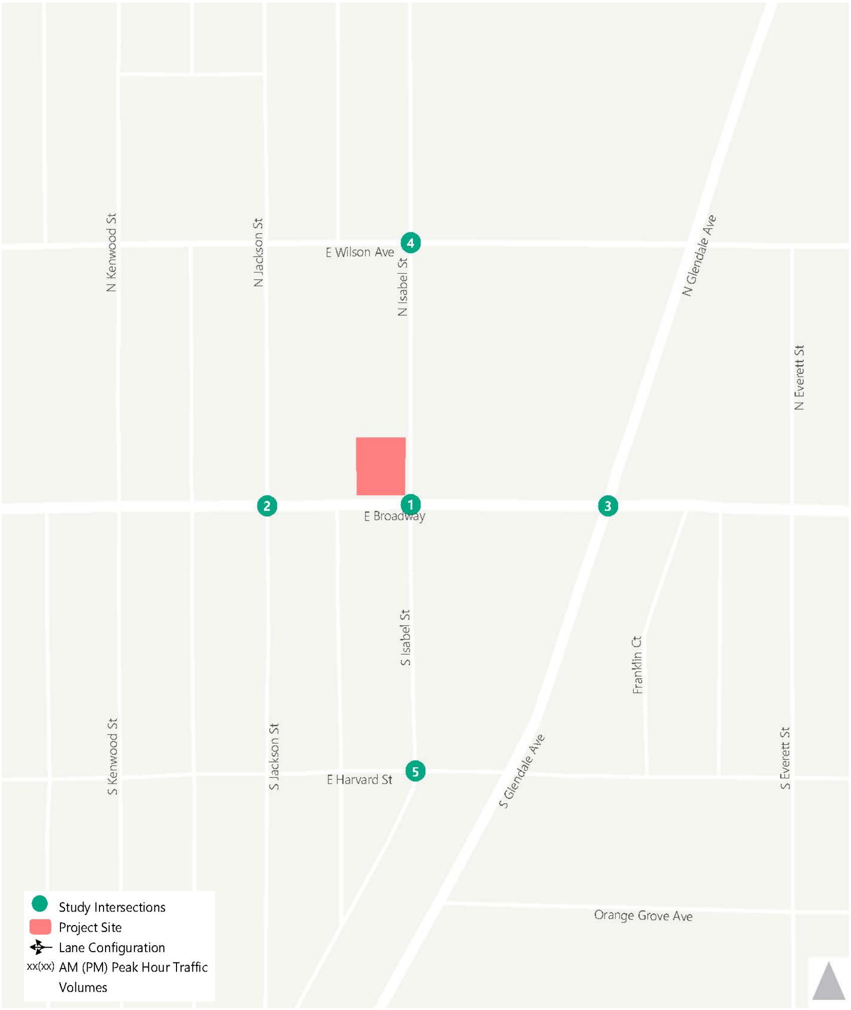
Congestion Management Program for Los Angeles County, Metro, 2010.

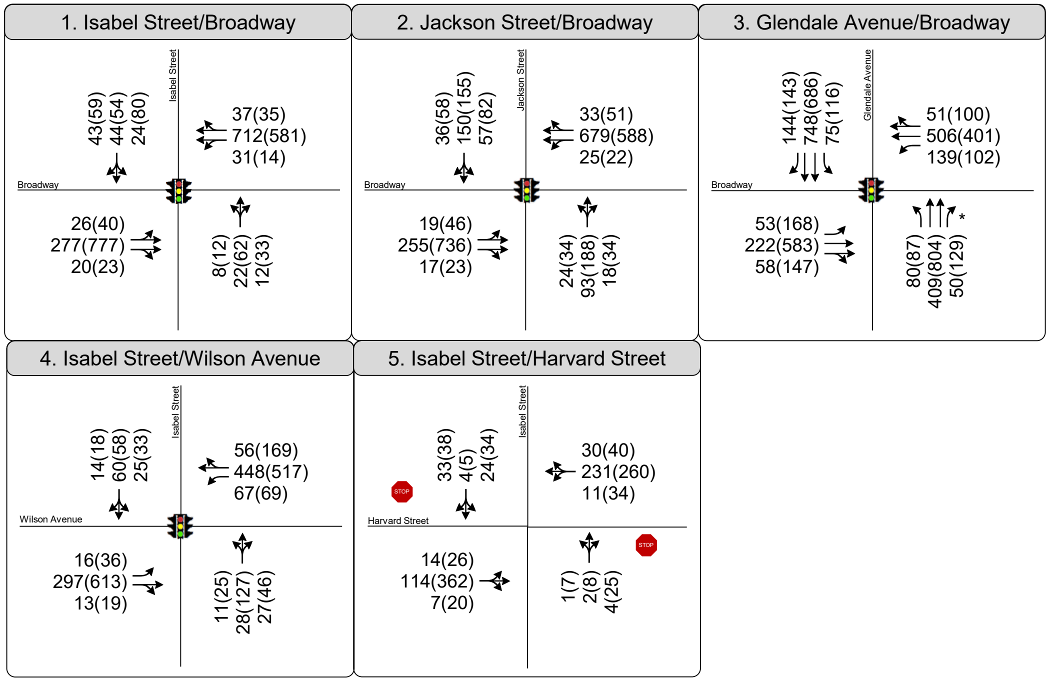
Enhancing Internal Trip Capture Estimation for Mixed-Use Developments, Transportation Research Board (TRB) National Cooperative Highway Research Program (NCHRP) Report 684.

Trip Generation, 10th Edition, Institute of Transportation Engineers, 2017.

APPENDIX A:

PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS



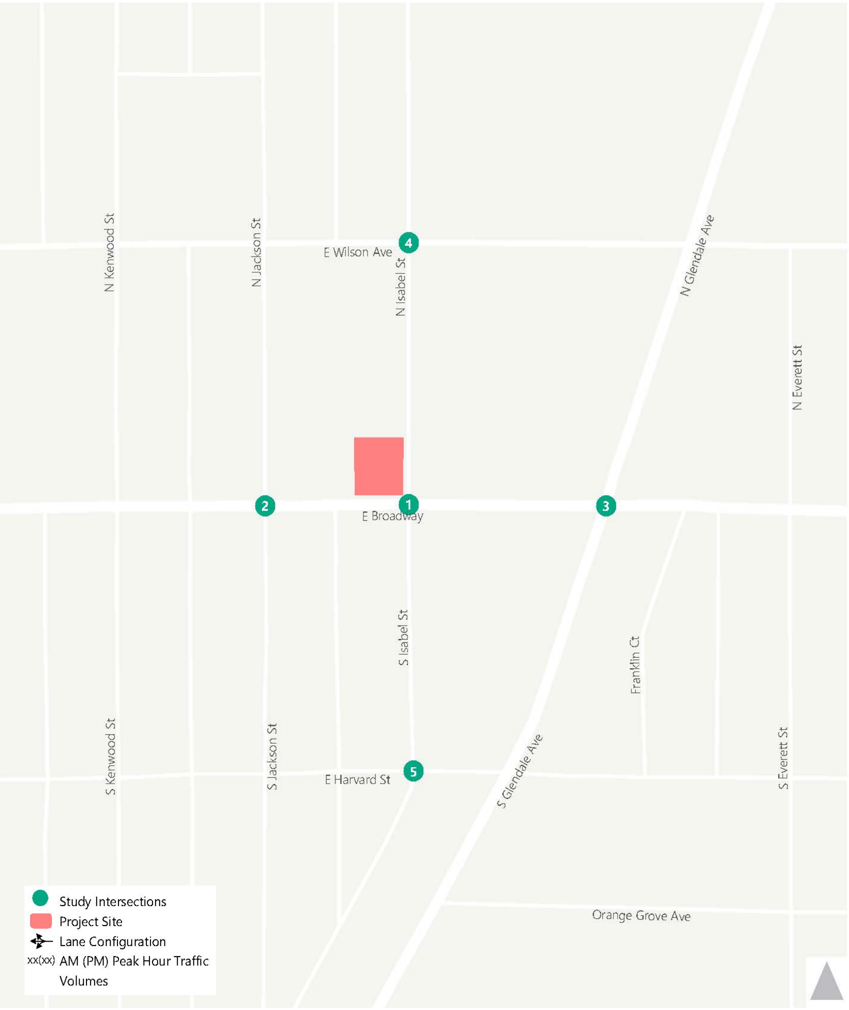


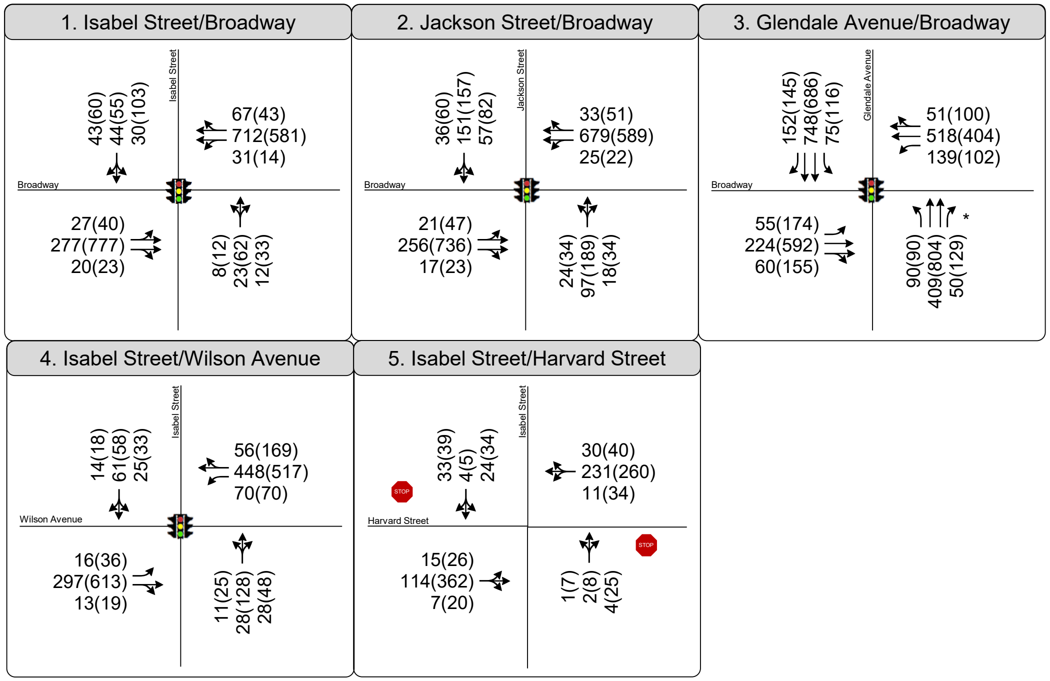
* In the evening peak period, the outer lane on the NB approach restricts parking and this lane becomes a through-right lane.

Appendix A

Existing (2018) - AM and PM Peak Hour Volumes

517 E Broadway Project



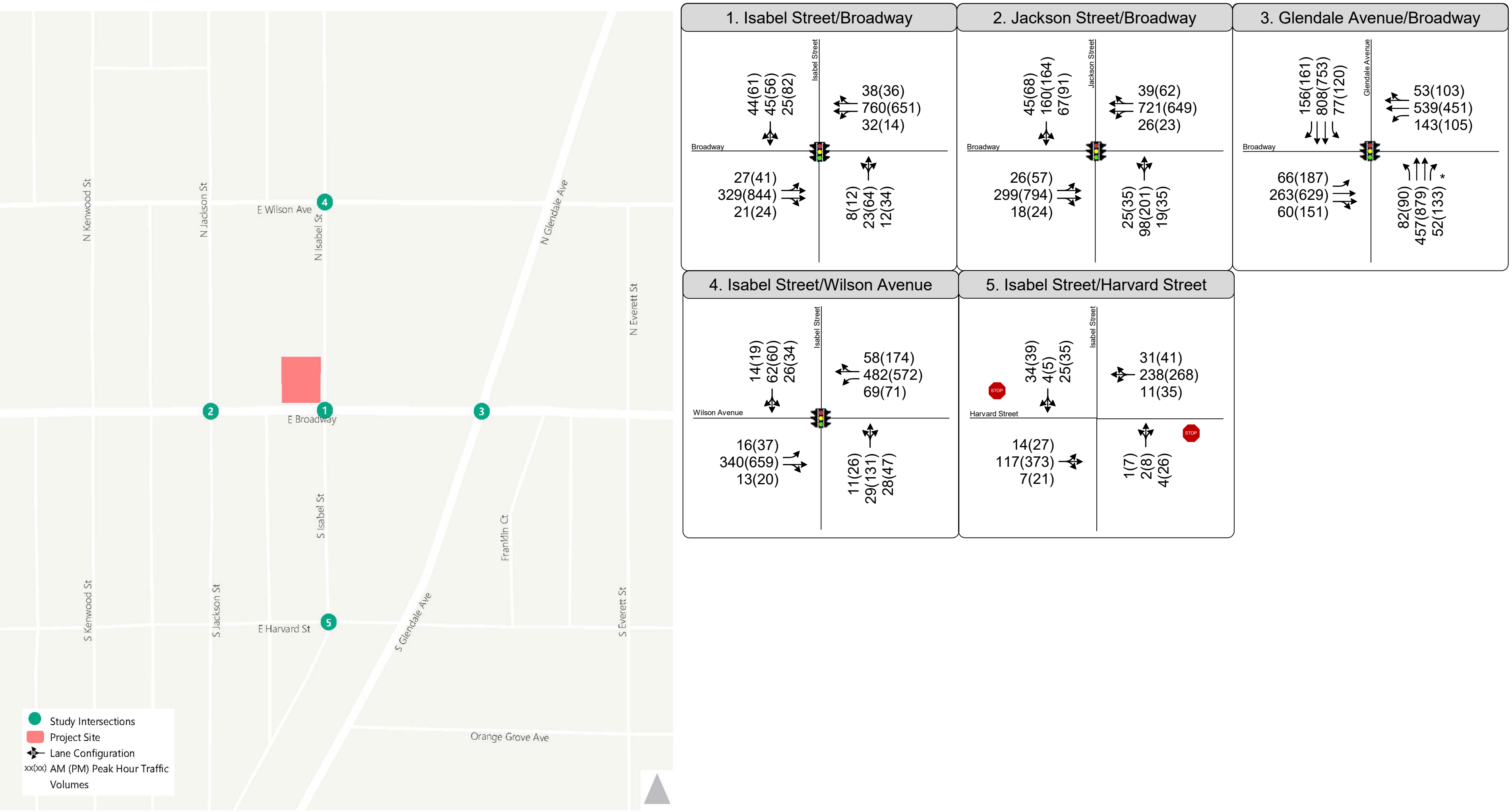


* In the evening peak period, the outer lane on the NB approach restricts parking and this lane becomes a through-right lane.

Appendix A

Existing+Project (2018) - AM and PM Peak Hour Volumes

517 E Broadway Project

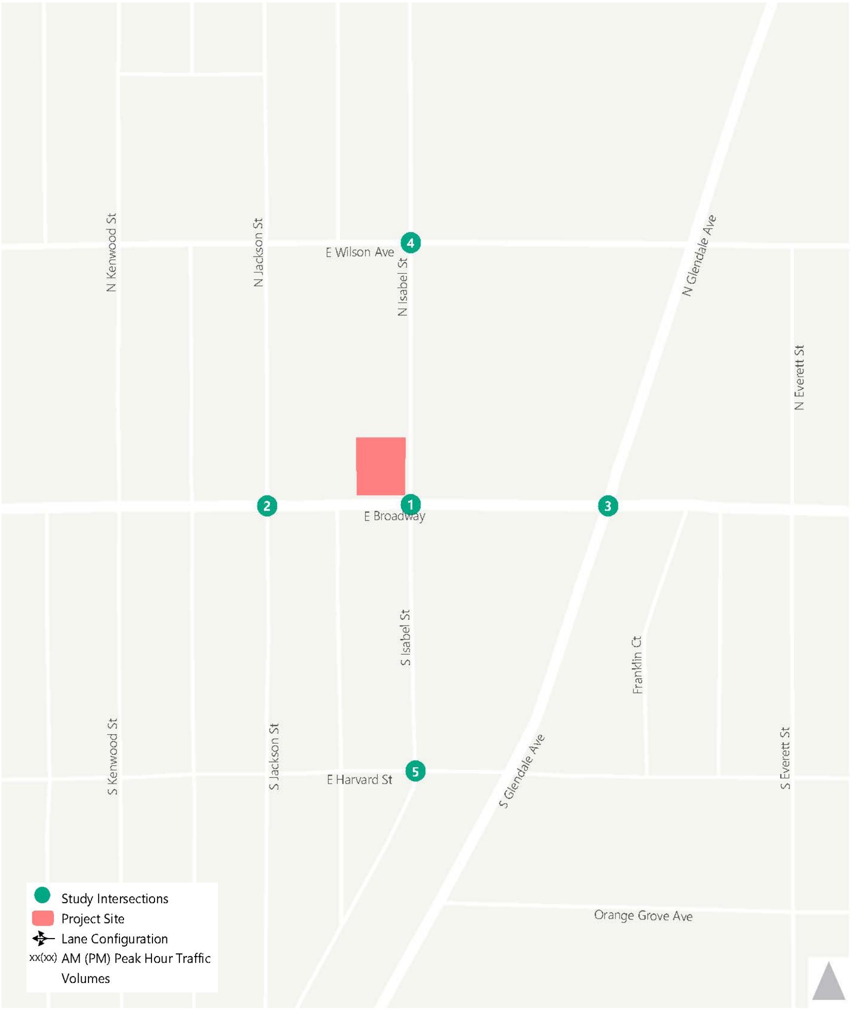


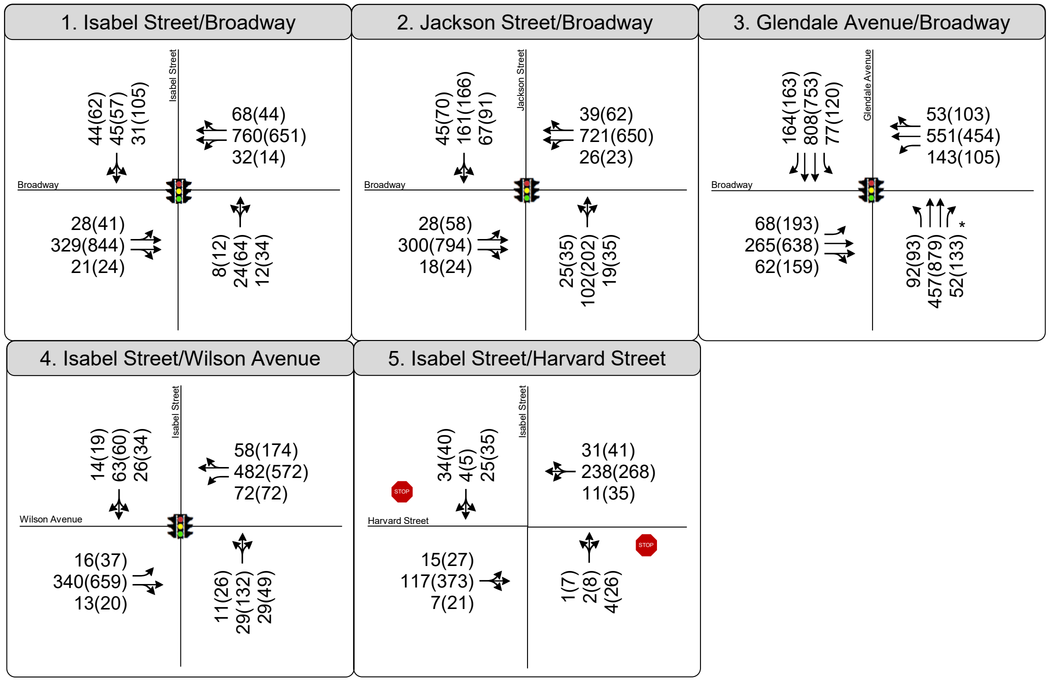
* In the evening peak period, the outer lane on the NB approach restricts parking and this lane becomes a through-right lane.

Appendix A

Future Base (2021) - AM and PM Peak Hour Volumes

517 E Broadway Project

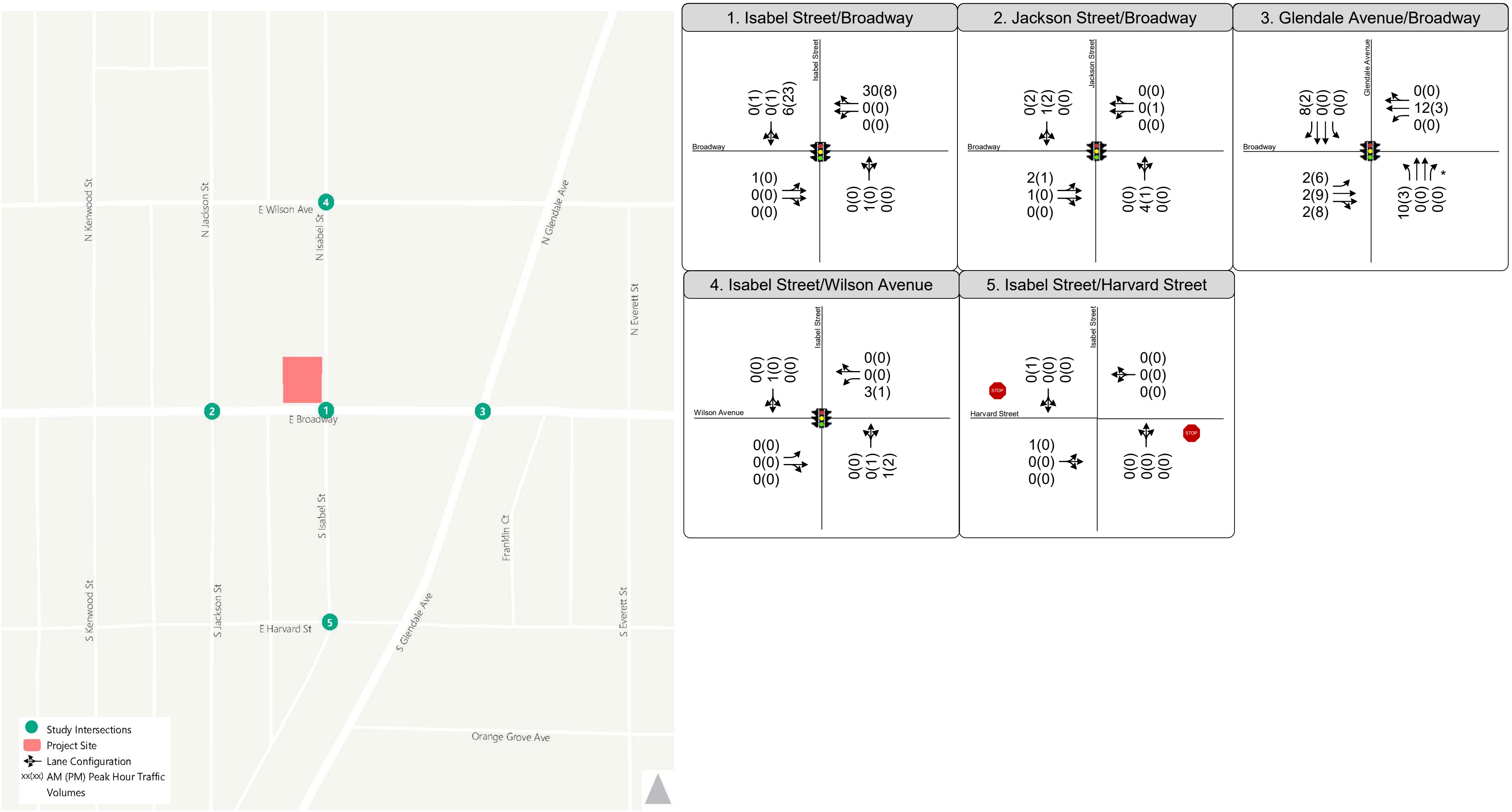




* In the evening peak period, the outer lane on the NB approach restricts parking and this lane becomes a through-right lane.

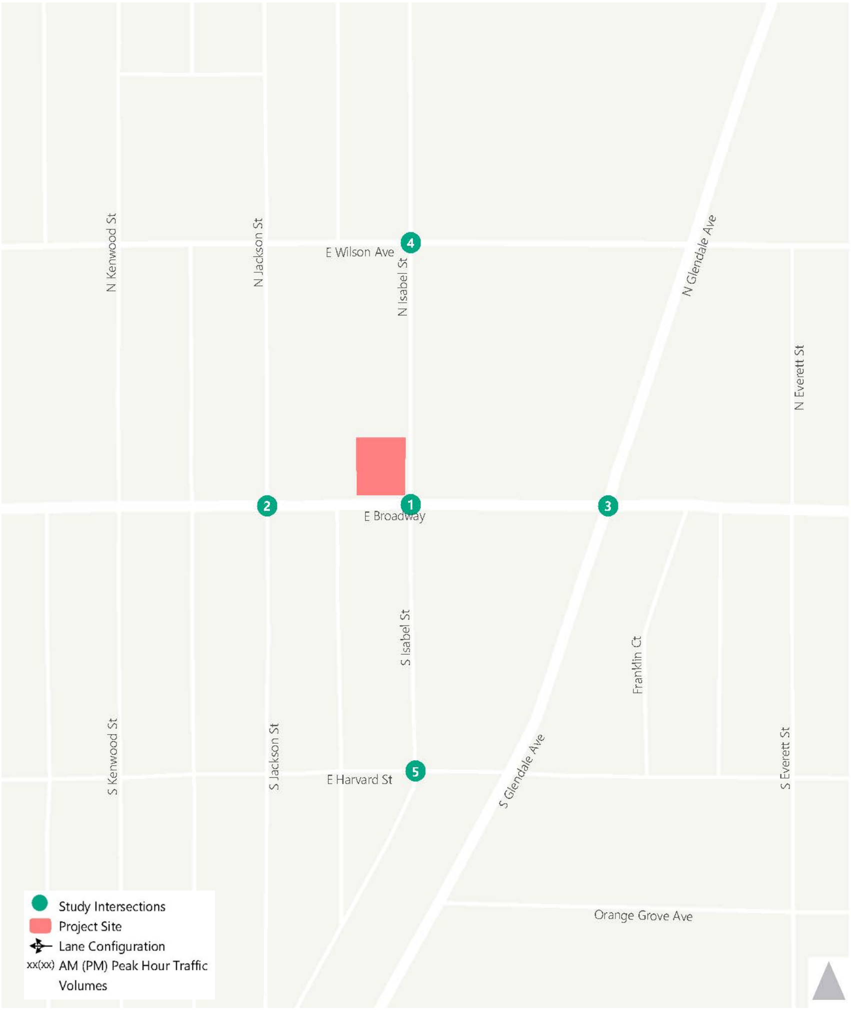
Appendix A

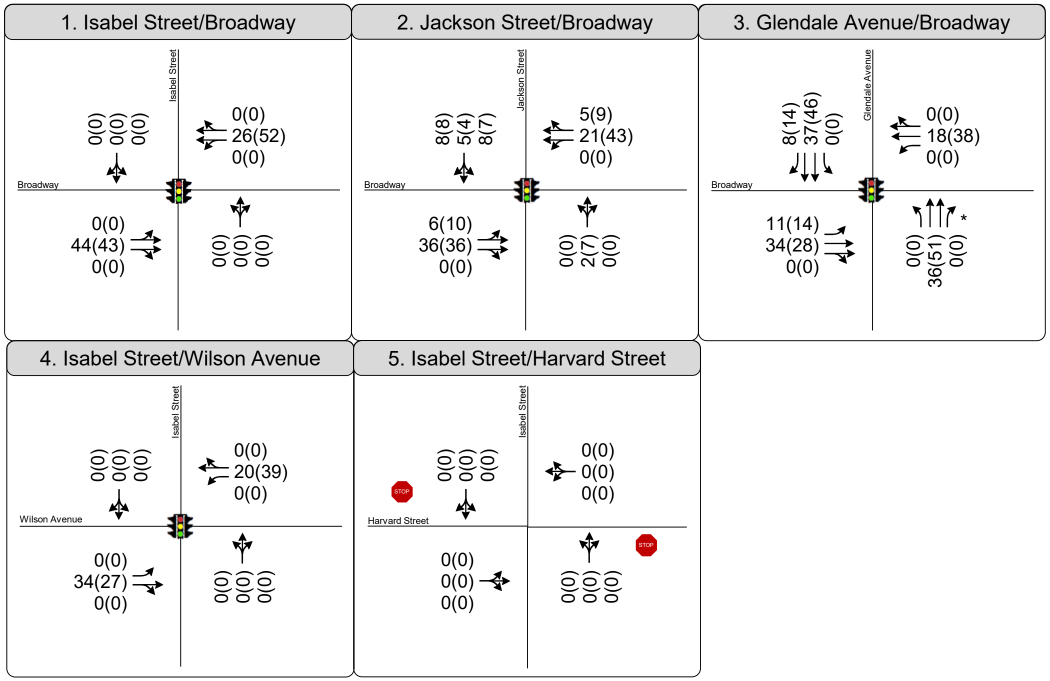
Future+Project (2021) - AM and PM Peak Hour Volumes
517 E Broadway Project



* In the evening peak period, the outer lane on the NB approach restricts parking and this lane becomes a through-right lane.

Appendix A
Project Only - AM and PM Peak Hour Volumes
517 E Broadway Project





* In the evening peak period, the outer lane on the NB approach restricts parking and this lane becomes a through-right lane.

Appendix A
Related Projects Only - AM and PM Peak Hour Volumes
517 E Broadway Project

APPENDIX B:
COUNT SHEETS

Prepared by National Data & Surveying Services

Isabel St & Broadway

Peak Hour Turning Movement Count

ID: 18-05800-001
City: Glendale

Day: Thursday
Date: 12/13/2018

	PEAK HOURS	COUNT PERIODS
AM	08:00 AM - 09:00 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:45 PM - 05:45 PM	04:00 PM - 06:00 PM

Isabel St

SOUTHBOUND

	↲	↓	↳	⤸	⇧
AM	43	44	24	0	85
NOON	0	0	0	0	0
PM	59	54	80	0	137
	0	1	0	0	

Broadway

EASTBOUND

	AM	NOON	PM	
⇦	763	0	652	
⤺	0	0	0	0
↱	26	0	40	0
→	277	0	777	2
↴	20	0	23	0

CONTROL

Signalized

	AM	NOON	PM
TEV	1256	0	1770
PHF	0.93		0.95

Broadway

WESTBOUND

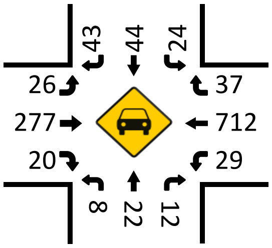
		PM	NOON	AM
0	↰	35	0	37
2	←	581	0	712
0	↲	13	0	29
0	⤹	1	0	2
	⇨	891	0	315

NORTHBOUND

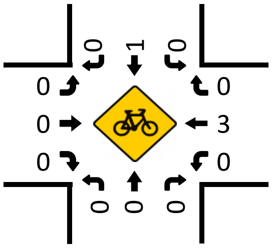
Isabel St

	⇩	⤴	↰	↑	↱
		0	0	1	0
PM	90	0	12	62	33
NOON	0	0	0	0	0
AM	93	0	8	22	12

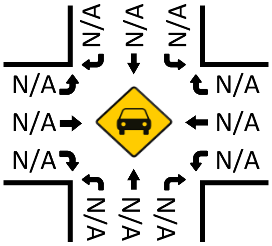
Total Vehicles (AM)



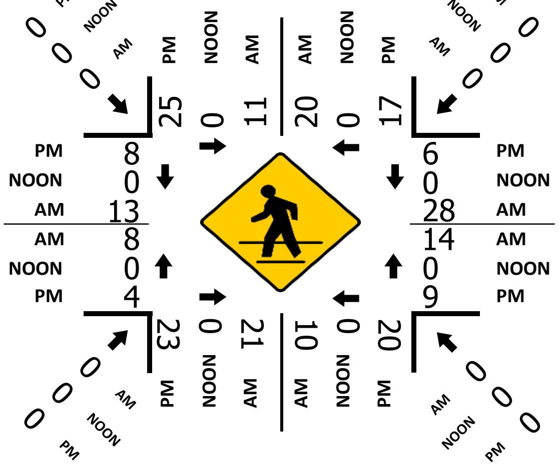
Bikes (AM)



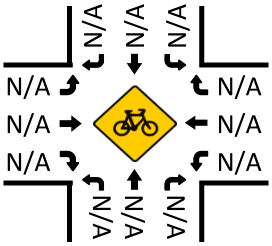
Total Vehicles (Noon)



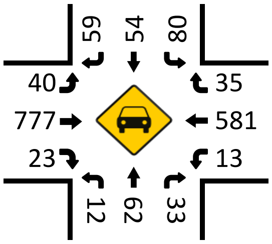
Pedestrians (Crosswalks)



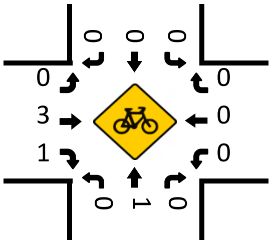
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)



Prepared by National Data & Surveying Services

Jackson St & Broadway

Peak Hour Turning Movement Count

ID: 18-05800-002
City: Glendale

Day: Thursday
Date: 12/13/2018

PEAK HOURS		COUNT PERIODS
08:00 AM - 09:00 AM	AM	07:00 AM - 09:00 AM
NONE	NOON	NONE
04:45 PM - 05:45 PM	PM	04:00 PM - 06:00 PM

Jackson St
SOUTHBOUND

	↲	↓	↳	↶	⇧
AM	36	150	57	0	145
NOON	0	0	0	0	0
PM	58	155	82	0	285
	0	1	0	0	

Broadway
EASTBOUND

	AM	NOON	PM	
⇦	739	0	680	
↶	0	0	0	0
↱	19	0	46	0
→	255	0	736	2
↴	17	0	23	0

Broadway
WESTBOUND

		PM	NOON	AM
0	↰	51	0	33
2	←	588	0	679
0	↲	22	0	25
0	↶	0	0	0
	⇨	852	0	330

CONTROL

Signalized

	AM	NOON	PM
TEV	1406	0	2017
PHF	0.93		0.94

NORTHBOUND
Jackson St

	⇩	↶	↰	↑	↱
		0	0	1	0
PM	200	0	34	188	34
NOON	0	0	0	0	0
AM	192	0	24	93	18

Total Vehicles (AM)

36 150 57
19 ↱ ↰ 33
255 → ← 679
17 ↴ ↲ 25
24 93 18

Total Vehicles (Noon)

N/A N/A N/A
N/A ↱ ↰ N/A
N/A → ← N/A
N/A ↴ ↲ N/A
N/A N/A N/A

Total Vehicles (PM)

58 155 82
46 ↱ ↰ 51
736 → ← 588
23 ↴ ↲ 22
34 188 34

Pedestrians (Crosswalks)

	PM	NOON	AM	AM	NOON	PM	
PM 0 / NOON 0 / AM 0	23	0	9	20	0	23	PM 0 / NOON 0 / AM 0

PM	18	4	PM
NOON	0	0	NOON
AM	8	7	AM
AM	15	4	AM
NOON	0	0	NOON
PM	12	8	PM

	PM	NOON	AM	AM	NOON	PM	
AM 0 / NOON 0 / PM 0	24	0	8	9	0	23	AM 0 / NOON 0 / PM 0

Bikes (AM)

0 0 0
0 ↱ ↰ 2
0 → ← 1
0 ↴ ↲ 0
0 0 0

Bikes (NOON)

N/A N/A N/A
N/A ↱ ↰ N/A
N/A → ← N/A
N/A ↴ ↲ N/A
N/A N/A N/A

Bikes (PM)

0 0 0
0 ↱ ↰ 0
5 → ← 0
0 ↴ ↲ 0
0 0 0

Prepared by National Data & Surveying Services

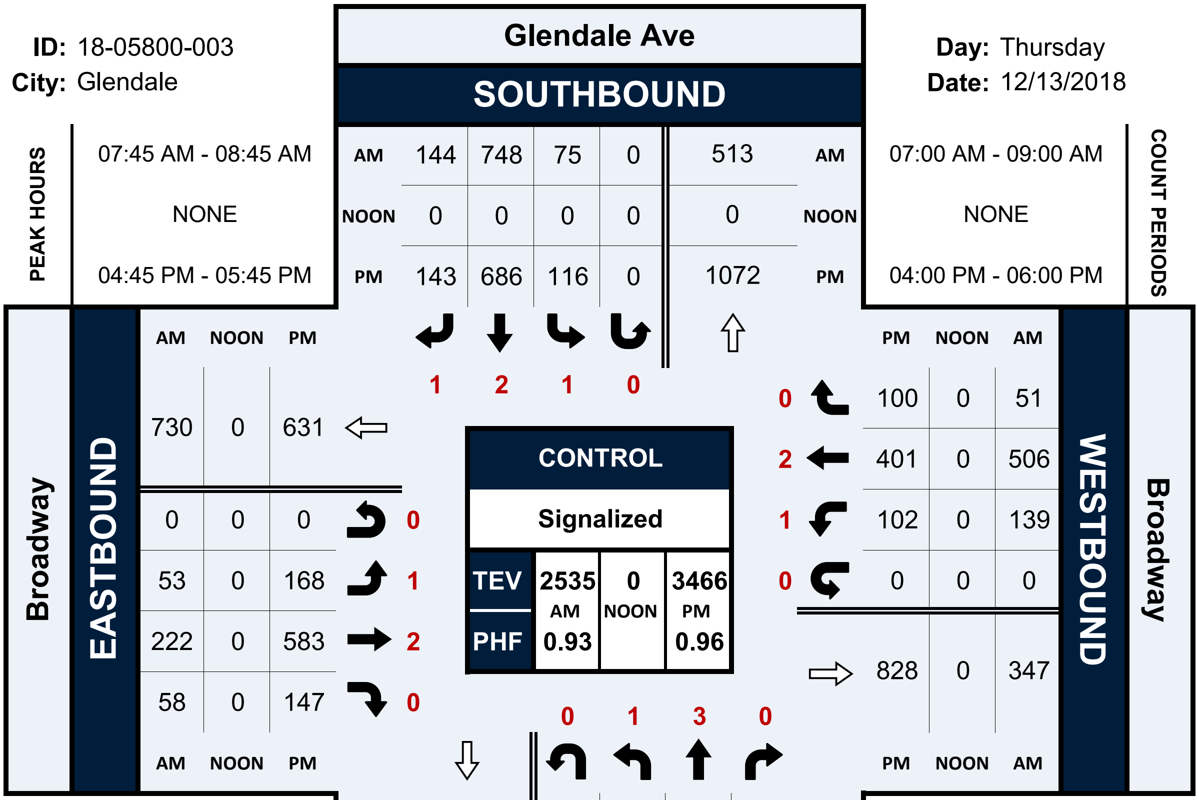
Glendale Ave & Broadway

Peak Hour Turning Movement Count

ID: 18-05800-003
City: Glendale

Day: Thursday
Date: 12/13/2018

	PEAK HOURS	COUNT PERIODS
AM	07:45 AM - 08:45 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:45 PM - 05:45 PM	04:00 PM - 06:00 PM



Glendale Ave
SOUTHBOUND

AM	144	748	75	0	513
NOON	0	0	0	0	0
PM	143	686	116	0	1072

Broadway
EASTBOUND

AM	NOON	PM
730	0	631
0	0	0
53	0	168
222	0	583
58	0	147

WESTBOUND
Broadway

PM	NOON	AM
100	0	51
401	0	506
102	0	139
0	0	0
828	0	347

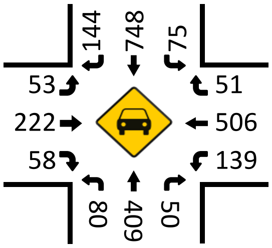
PM	935	0	87	804	129
NOON	0	0	0	0	0
AM	945	0	80	409	50

NORTHBOUND
Glendale Ave

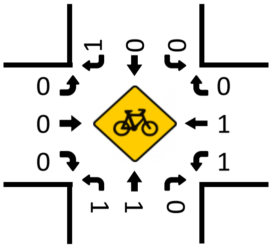
CONTROL
Signalized

	AM	NOON	PM
TEV	2535	0	3466
PHF	0.93		0.96

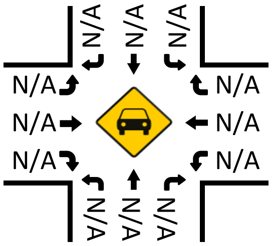
Total Vehicles (AM)



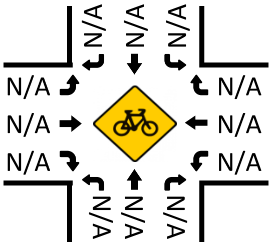
Bikes (AM)



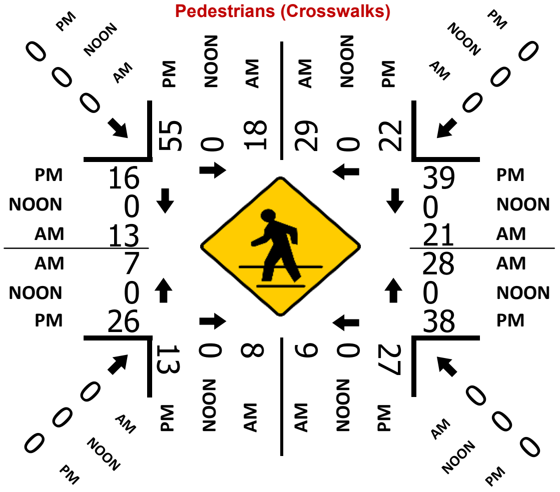
Total Vehicles (Noon)



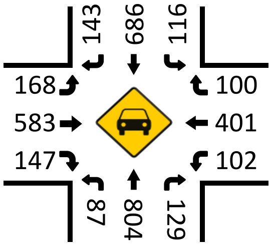
Bikes (NOON)



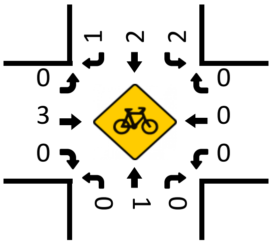
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



Prepared by National Data & Surveying Services

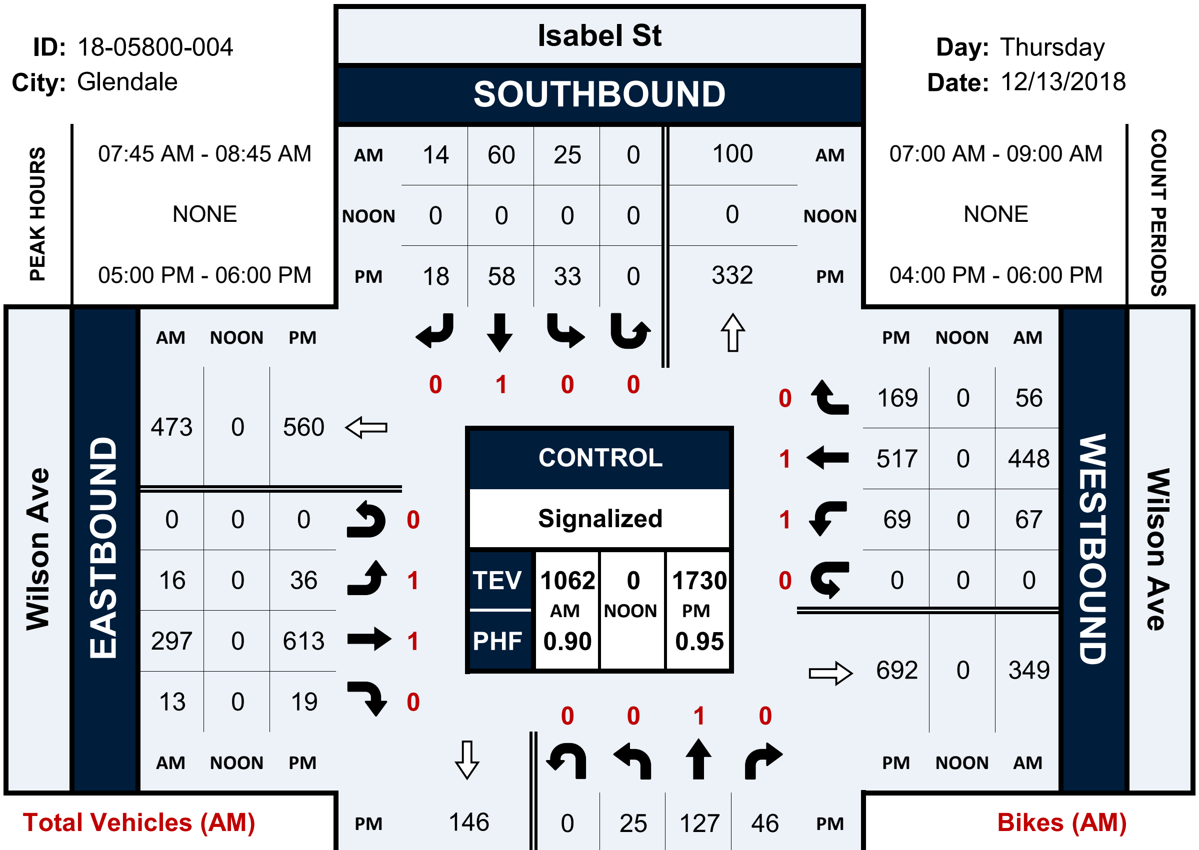
Isabel St & Wilson Ave

Peak Hour Turning Movement Count

ID: 18-05800-004
City: Glendale

Day: Thursday
Date: 12/13/2018

	PEAK HOURS	COUNT PERIODS
AM	07:45 AM - 08:45 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	05:00 PM - 06:00 PM	04:00 PM - 06:00 PM



Isabel St SOUTHBOUND

AM	14	60	25	0	100
NOON	0	0	0	0	0
PM	18	58	33	0	332
	0	1	0	0	

Wilson Ave EASTBOUND

	AM	NOON	PM	
	473	0	560	
	0	0	0	0
	16	0	36	1
	297	0	613	1
	13	0	19	0

Wilson Ave WESTBOUND

	PM	NOON	AM
0	169	0	56
1	517	0	448
1	69	0	67
0	0	0	0
	692	0	349

Isabel St NORTHBOUND

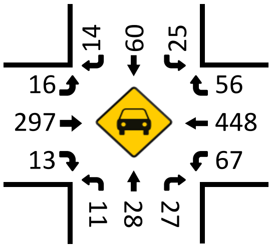
		0	0	1	0
PM	146	0	25	127	46
NOON	0	0	0	0	0
AM	140	0	11	28	27

CONTROL

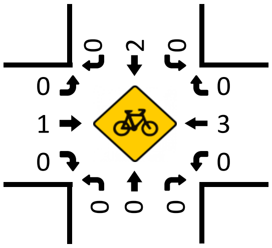
Signalized

	AM	NOON	PM
TEV	1062	0	1730
PHF	0.90		0.95

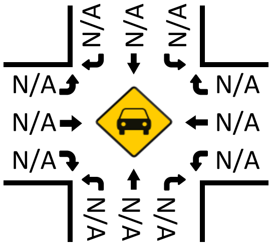
Total Vehicles (AM)



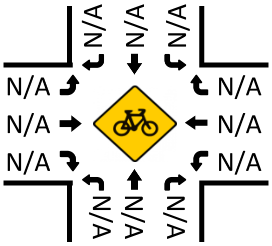
Bikes (AM)



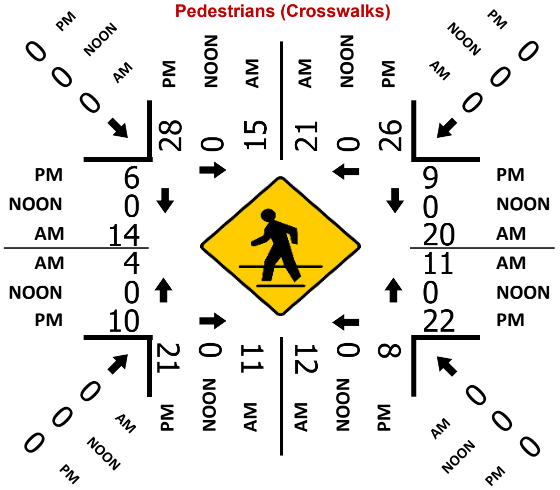
Total Vehicles (Noon)



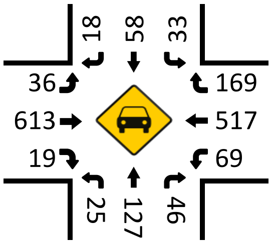
Bikes (NOON)



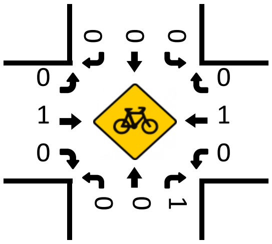
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



Prepared by National Data & Surveying Services

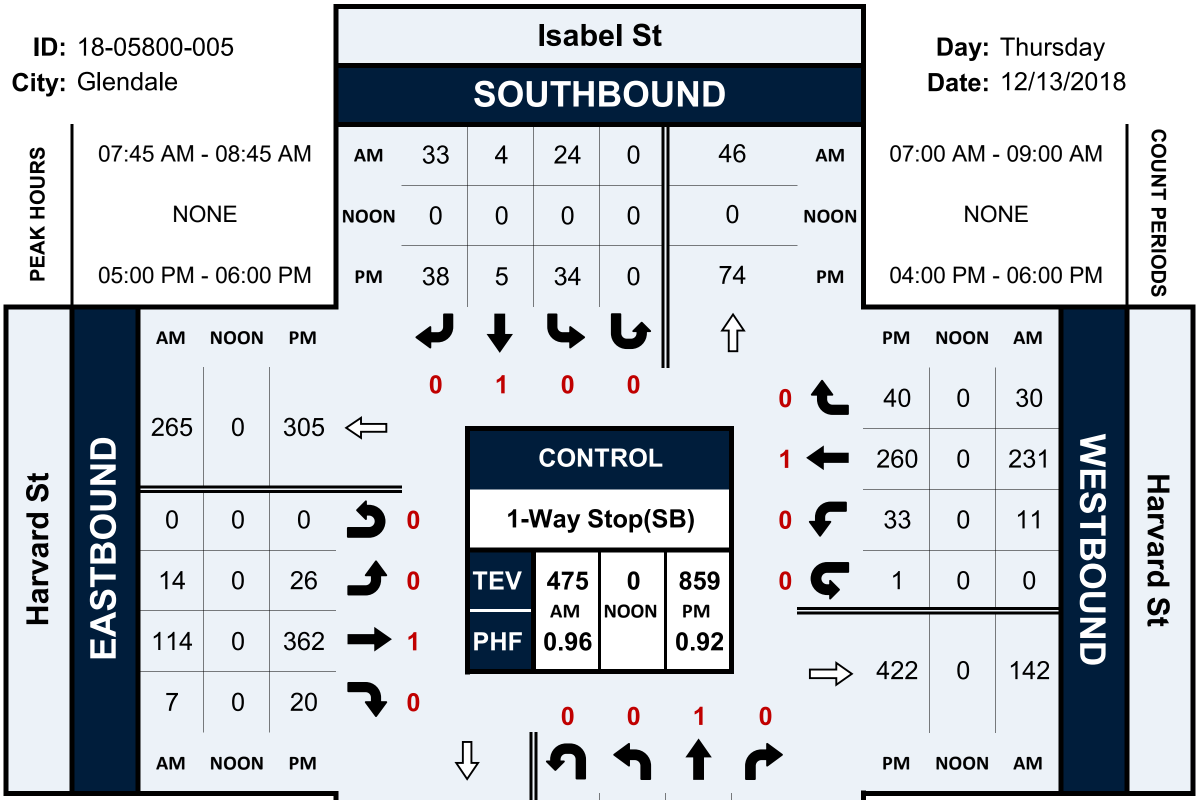
Isabel St & Harvard St

Peak Hour Turning Movement Count

ID: 18-05800-005
City: Glendale

Day: Thursday
Date: 12/13/2018

PEAK HOURS		COUNT PERIODS
AM	07:45 AM - 08:45 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	05:00 PM - 06:00 PM	04:00 PM - 06:00 PM



Isabel St
SOUTHBOUND

AM	33	4	24	0	46
NOON	0	0	0	0	0
PM	38	5	34	0	74
	0	1	0	0	

Harvard St
EASTBOUND

	AM	NOON	PM	
	265	0	305	
	0	0	0	0
	14	0	26	0
	114	0	362	1
	7	0	20	0
	AM	NOON	PM	

CONTROL
1-Way Stop(SB)

	AM	NOON	PM
TEV	475	0	859
PHF	0.96		0.92

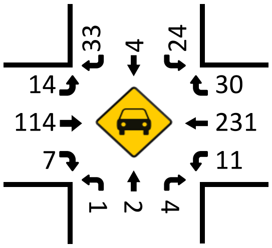
WESTBOUND
Harvard St

	PM	NOON	AM
0	40	0	30
1	260	0	231
0	33	0	11
0	1	0	0
	422	0	142
	PM	NOON	AM

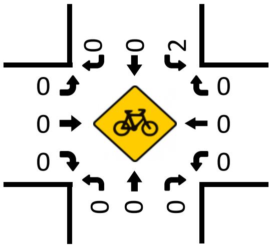
		0	0	1	0
PM	58	0	7	8	25
NOON	0	0	0	0	0
AM	22	0	1	2	4

NORTHBOUND
Isabel St

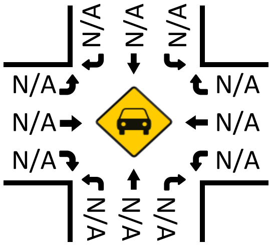
Total Vehicles (AM)



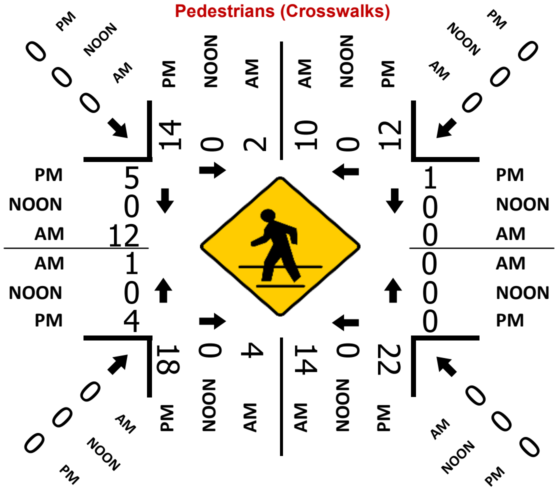
Bikes (AM)



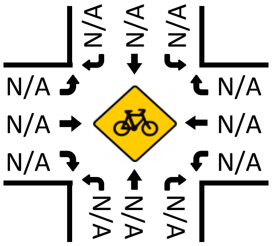
Total Vehicles (Noon)



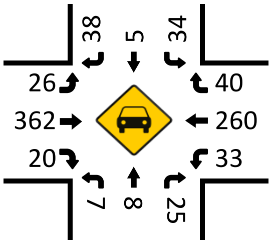
Pedestrians (Crosswalks)



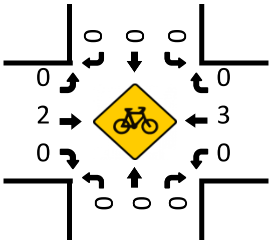
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)



APPENDIX C:
LOS ANALYSIS SHEETS

EXISTING CONDITIONS

Project Title: 517 E Broadway
Intersection: 1 - Isabel Street & Broadway
Description: Existing

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	43	0	0.000	N-S(1):	0.041
	TH	1.00	44	1,600	0.069 *	N-S(2):	0.074 *
	LT	0.00	24	1,600	0.015	E-W(1):	0.120
Westbound	RT	0.00	37	0	0.000	E-W(2):	0.260 *
	TH	2.00	712	1,600	0.244 *		
	LT	0.00	31	1,600	0.019	V/C:	0.334
Northbound	RT	0.00	12	0	0.000	Lost Time:	0.100
	TH	1.00	22	1,600	0.026	ITS:	0.000
	LT	0.00	8	1,600	0.005 *		
Eastbound	RT	0.00	20	0	0.000	ICU:	0.434
	TH	2.00	277	1,600	0.101		
	LT	0.00	26	1,600	0.016 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	59	0	0.000	N-S(1):	0.117
	TH	1.00	54	1,600	0.121 *	N-S(2):	0.129 *
	LT	0.00	80	1,600	0.050	E-W(1):	0.272 *
Westbound	RT	0.00	35	0	0.000	E-W(2):	0.222
	TH	2.00	581	1,600	0.197		
	LT	0.00	14	1,600	0.009 *	V/C:	0.401
Northbound	RT	0.00	33	0	0.000	Lost Time:	0.100
	TH	1.00	62	1,600	0.067	ITS:	0.000
	LT	0.00	12	1,600	0.008 *		
Eastbound	RT	0.00	23	0	0.000	ICU:	0.501
	TH	2.00	777	1,600	0.263 *		
	LT	0.00	40	1,600	0.025	LOS:	A

* - Denotes critical movement

Project Title: 517 E Broadway
Intersection: 2 - Jackson Street & Broadway
Description: Existing

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %
OLA Movements :
FF Movements:

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	36	0	0.000	N-S(1):	0.120
	TH	1.00	150	1,600	0.152 *	N-S(2):	0.167 *
	LT	0.00	57	1,600	0.036	E-W(1):	0.107
Westbound	RT	0.00	33	0	0.000	E-W(2):	0.242 *
	TH	2.00	679	1,600	0.230 *		
	LT	0.00	25	1,600	0.016	V/C:	0.409
Northbound	RT	0.00	18	0	0.000	Lost Time:	0.100
	TH	1.00	93	1,600	0.084	ITS:	0.000
	LT	0.00	24	1,600	0.015 *		
Eastbound	RT	0.00	17	0	0.000	ICU:	0.509
	TH	2.00	255	1,600	0.091		
	LT	0.00	19	1,600	0.012 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	58	0	0.000	N-S(1):	0.211 *
	TH	1.00	155	1,600	0.184	N-S(2):	0.205
	LT	0.00	82	1,600	0.051 *	E-W(1):	0.266 *
Westbound	RT	0.00	51	0	0.000	E-W(2):	0.236
	TH	2.00	588	1,600	0.207		
	LT	0.00	22	1,600	0.014 *	V/C:	0.477
Northbound	RT	0.00	34	0	0.000	Lost Time:	0.100
	TH	1.00	188	1,600	0.160 *	ITS:	0.000
	LT	0.00	34	1,600	0.021		
Eastbound	RT	0.00	23	0	0.000	ICU:	0.577
	TH	2.00	736	1,600	0.252 *		
	LT	0.00	46	1,600	0.029	LOS:	A

* - Denotes critical movement

Project Title: 517 E Broadway
Intersection: 3 - Glendale Avenue & Broadway
Description: Existing

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	144	1,600	0.073	N-S(1):	0.175
	TH	2.00	748	3,200	0.234 *	N-S(2):	0.284 *
	LT	1.00	75	1,600	0.047	E-W(1):	0.175
Westbound	RT	0.00	51	0	0.000	E-W(2):	0.207 *
	TH	2.00	506	3,200	0.174 *		
	LT	1.00	139	1,600	0.087	V/C:	0.491
Northbound	RT	1.00	50	1,600	0.000	Lost Time:	0.100
	TH	2.00	409	3,200	0.128	ITS:	0.000
	LT	1.00	80	1,600	0.050 *		
Eastbound	RT	0.00	58	0	0.000	ICU:	0.591
	TH	2.00	222	3,200	0.088		
	LT	1.00	53	1,600	0.033 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	143	1,600	0.037	N-S(1):	0.267
	TH	2.00	686	3,200	0.214 *	N-S(2):	0.268 *
	LT	1.00	116	1,600	0.073	E-W(1):	0.292 *
Westbound	RT	0.00	100	0	0.000	E-W(2):	0.262
	TH	2.00	401	3,200	0.157		
	LT	1.00	102	1,600	0.064 *	V/C:	0.560
Northbound	RT	0.00	129	0	0.000	Lost Time:	0.100
	TH	3.00	804	4,800	0.194	ITS:	0.000
	LT	1.00	87	1,600	0.054 *		
Eastbound	RT	0.00	147	0	0.000	ICU:	0.660
	TH	2.00	583	3,200	0.228 *		
	LT	1.00	168	1,600	0.105	LOS:	B

* - Denotes critical movement

Project Title: 517 E Broadway
Intersection: 4 - Isabel Street & Wilson Avenue
Description: Existing

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %
OLA Movements :
FF Movements:

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	14	0	0.000	N-S(1):	0.057
	TH	1.00	60	1,600	0.062 *	N-S(2):	0.069 *
	LT	0.00	25	1,600	0.016	E-W(1):	0.236
Westbound	RT	0.11	56	178	0.307	E-W(2):	0.325 *
	TH	0.89	448	1,422	0.315 *		
	LT	1.00	67	1,600	0.042	V/C:	0.394
Northbound	RT	0.00	27	0	0.000	Lost Time:	0.100
	TH	1.00	28	1,600	0.041	ITS:	0.000
	LT	0.00	11	1,600	0.007 *		
Eastbound	RT	0.04	13	67	0.190	ICU:	0.494
	TH	0.96	297	1,533	0.194		
	LT	1.00	16	1,600	0.010 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	18	0	0.000	N-S(1):	0.145 *
	TH	1.00	58	1,600	0.068	N-S(2):	0.084
	LT	0.00	33	1,600	0.021 *	E-W(1):	0.438
Westbound	RT	0.25	169	394	0.418	E-W(2):	0.452 *
	TH	0.75	517	1,206	0.429 *		
	LT	1.00	69	1,600	0.043	V/C:	0.597
Northbound	RT	0.00	46	0	0.000	Lost Time:	0.100
	TH	1.00	127	1,600	0.124 *	ITS:	0.000
	LT	0.00	25	1,600	0.016		
Eastbound	RT	0.03	19	48	0.387	ICU:	0.697
	TH	0.97	613	1,552	0.395		
	LT	1.00	36	1,600	0.023 *	LOS:	B

* - Denotes critical movement

EXISTING+PROJECT CONDITIONS

Project Title: 517 E Broadway
Intersection: 1 - Isabel Street & Broadway
Description: Existing plus Project

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	43	0	0.000	N-S(1):	0.046
	TH	1.00	44	1,600	0.073 *	N-S(2):	0.078 *
	LT	0.00	30	1,600	0.019	E-W(1):	0.120
Westbound	RT	0.00	67	0	0.000	E-W(2):	0.270 *
	TH	2.00	712	1,600	0.253 *		
	LT	0.00	31	1,600	0.019	V/C:	0.348
Northbound	RT	0.00	12	0	0.000	Lost Time:	0.100
	TH	1.00	23	1,600	0.027	ITS:	0.000
	LT	0.00	8	1,600	0.005 *		
Eastbound	RT	0.00	20	0	0.000	ICU:	0.448
	TH	2.00	277	1,600	0.101		
	LT	0.00	27	1,600	0.017 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	60	0	0.000	N-S(1):	0.131
	TH	1.00	55	1,600	0.136 *	N-S(2):	0.144 *
	LT	0.00	103	1,600	0.064	E-W(1):	0.272 *
Westbound	RT	0.00	43	0	0.000	E-W(2):	0.224
	TH	2.00	581	1,600	0.199		
	LT	0.00	14	1,600	0.009 *	V/C:	0.416
Northbound	RT	0.00	33	0	0.000	Lost Time:	0.100
	TH	1.00	62	1,600	0.067	ITS:	0.000
	LT	0.00	12	1,600	0.008 *		
Eastbound	RT	0.00	23	0	0.000	ICU:	0.516
	TH	2.00	777	1,600	0.263 *		
	LT	0.00	40	1,600	0.025	LOS:	A

* - Denotes critical movement

Project Title: 517 E Broadway
Intersection: 2 - Jackson Street & Broadway
Description: Existing plus Project

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %
OLA Movements :
FF Movements:

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	36	0	0.000	N-S(1):	0.123
	TH	1.00	151	1,600	0.153 *	N-S(2):	0.168 *
	LT	0.00	57	1,600	0.036	E-W(1):	0.108
Westbound	RT	0.00	33	0	0.000	E-W(2):	0.243 *
	TH	2.00	679	1,600	0.230 *		
	LT	0.00	25	1,600	0.016	V/C:	0.411
Northbound	RT	0.00	18	0	0.000	Lost Time:	0.100
	TH	1.00	97	1,600	0.087	ITS:	0.000
	LT	0.00	24	1,600	0.015 *		
Eastbound	RT	0.00	17	0	0.000	ICU:	0.511
	TH	2.00	256	1,600	0.092		
	LT	0.00	21	1,600	0.013 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	60	0	0.000	N-S(1):	0.212 *
	TH	1.00	157	1,600	0.187	N-S(2):	0.208
	LT	0.00	82	1,600	0.051 *	E-W(1):	0.266 *
Westbound	RT	0.00	51	0	0.000	E-W(2):	0.236
	TH	2.00	589	1,600	0.207		
	LT	0.00	22	1,600	0.014 *	V/C:	0.478
Northbound	RT	0.00	34	0	0.000	Lost Time:	0.100
	TH	1.00	189	1,600	0.161 *	ITS:	0.000
	LT	0.00	34	1,600	0.021		
Eastbound	RT	0.00	23	0	0.000	ICU:	0.578
	TH	2.00	736	1,600	0.252 *		
	LT	0.00	47	1,600	0.029	LOS:	A

* - Denotes critical movement

Project Title: 517 E Broadway
Intersection: 3 - Glendale Avenue & Broadway
Description: Existing plus Project

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %
OLA Movements :
FF Movements:

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	152	1,600	0.078	N-S(1):	0.175
	TH	2.00	748	3,200	0.234 *	N-S(2):	0.290 *
	LT	1.00	75	1,600	0.047	E-W(1):	0.176
Westbound	RT	0.00	51	0	0.000	E-W(2):	0.212 *
	TH	2.00	518	3,200	0.178 *		
	LT	1.00	139	1,600	0.087	V/C:	0.502
Northbound	RT	1.00	50	1,600	0.000	Lost Time:	0.100
	TH	2.00	409	3,200	0.128	ITS:	0.000
	LT	1.00	90	1,600	0.056 *		
Eastbound	RT	0.00	60	0	0.000	ICU:	0.602
	TH	2.00	224	3,200	0.089		
	LT	1.00	55	1,600	0.034 *	LOS:	B

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	145	1,600	0.091	N-S(1):	0.267
	TH	2.00	686	3,200	0.214 *	N-S(2):	0.270 *
	LT	1.00	116	1,600	0.073	E-W(1):	0.297 *
Westbound	RT	0.00	100	0	0.000	E-W(2):	0.267
	TH	2.00	404	3,200	0.158		
	LT	1.00	102	1,600	0.064 *	V/C:	0.567
Northbound	RT	0.00	129	0	0.000	Lost Time:	0.100
	TH	3.00	804	4,800	0.194	ITS:	0.000
	LT	1.00	90	1,600	0.056 *		
Eastbound	RT	0.00	155	0	0.000	ICU:	0.667
	TH	2.00	592	3,200	0.233 *		
	LT	1.00	174	1,600	0.109	LOS:	B

* - Denotes critical movement

Project Title: 517 E Broadway
Intersection: 4 - Isabel Street & Wilson Avenue
Description: Existing plus Project

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %
OLA Movements :
FF Movements:

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	14	0	0.000	N-S(1):	0.058
	TH	1.00	61	1,600	0.063 *	N-S(2):	0.070 *
	LT	0.00	25	1,600	0.016	E-W(1):	0.238
Westbound	RT	0.11	56	178	0.307	E-W(2):	0.325 *
	TH	0.89	448	1,422	0.315 *		
	LT	1.00	70	1,600	0.044	V/C:	0.395
Northbound	RT	0.00	28	0	0.000	Lost Time:	0.100
	TH	1.00	28	1,600	0.042	ITS:	0.000
	LT	0.00	11	1,600	0.007 *		
Eastbound	RT	0.04	13	67	0.190	ICU:	0.495
	TH	0.96	297	1,533	0.194		
	LT	1.00	16	1,600	0.010 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	18	0	0.000	N-S(1):	0.147 *
	TH	1.00	58	1,600	0.068	N-S(2):	0.084
	LT	0.00	33	1,600	0.021 *	E-W(1):	0.439
Westbound	RT	0.25	169	394	0.429	E-W(2):	0.452 *
	TH	0.75	517	1,206	0.429 *		
	LT	1.00	70	1,600	0.044	V/C:	0.599
Northbound	RT	0.00	48	0	0.000	Lost Time:	0.100
	TH	1.00	128	1,600	0.126 *	ITS:	0.000
	LT	0.00	25	1,600	0.016		
Eastbound	RT	0.03	19	48	0.395	ICU:	0.699
	TH	0.97	613	1,552	0.395		
	LT	1.00	36	1,600	0.023 *	LOS:	B

* - Denotes critical movement

FUTURE BASE CONDITIONS

Project Title: 517 E Broadway
Intersection: 1 - Isabel Street & Broadway
Description: Future Base

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	44	0	0.000	N-S(1):	0.043
	TH	1.00	45	1,600	0.071 *	N-S(2):	0.076 *
	LT	0.00	25	1,600	0.016	E-W(1):	0.138
Westbound	RT	0.00	38	0	0.000	E-W(2):	0.276 *
	TH	2.00	760	1,600	0.259 *		
	LT	0.00	32	1,600	0.020	V/C:	0.352
Northbound	RT	0.00	12	0	0.000	Lost Time:	0.100
	TH	1.00	23	1,600	0.027	ITS:	0.000
	LT	0.00	8	1,600	0.005 *		
Eastbound	RT	0.00	21	0	0.000	ICU:	0.452
	TH	2.00	329	1,600	0.118		
	LT	0.00	27	1,600	0.017 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	61	0	0.000	N-S(1):	0.120
	TH	1.00	56	1,600	0.124 *	N-S(2):	0.132 *
	LT	0.00	82	1,600	0.051	E-W(1):	0.293 *
Westbound	RT	0.00	36	0	0.000	E-W(2):	0.245
	TH	2.00	651	1,600	0.219		
	LT	0.00	14	1,600	0.009 *	V/C:	0.425
Northbound	RT	0.00	34	0	0.000	Lost Time:	0.100
	TH	1.00	64	1,600	0.069	ITS:	0.000
	LT	0.00	12	1,600	0.008 *		
Eastbound	RT	0.00	24	0	0.000	ICU:	0.525
	TH	2.00	844	1,600	0.284 *		
	LT	0.00	41	1,600	0.026	LOS:	A

* - Denotes critical movement

Project Title: 517 E Broadway
Intersection: 2 - Jackson Street & Broadway
Description: Future Base

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %
OLA Movements :
FF Movements:

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	45	0	0.000	N-S(1):	0.131
	TH	1.00	160	1,600	0.170 *	N-S(2):	0.186 *
	LT	0.00	67	1,600	0.042	E-W(1):	0.123
Westbound	RT	0.00	39	0	0.000	E-W(2):	0.262 *
	TH	2.00	721	1,600	0.246 *		
	LT	0.00	26	1,600	0.016	V/C:	0.448
Northbound	RT	0.00	19	0	0.000	Lost Time:	0.100
	TH	1.00	98	1,600	0.089	ITS:	0.000
	LT	0.00	25	1,600	0.016 *		
Eastbound	RT	0.00	18	0	0.000	ICU:	0.548
	TH	2.00	299	1,600	0.107		
	LT	0.00	26	1,600	0.016 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	68	0	0.000	N-S(1):	0.226 *
	TH	1.00	164	1,600	0.202	N-S(2):	0.224
	LT	0.00	91	1,600	0.057 *	E-W(1):	0.287 *
Westbound	RT	0.00	62	0	0.000	E-W(2):	0.265
	TH	2.00	649	1,600	0.229		
	LT	0.00	23	1,600	0.014 *	V/C:	0.513
Northbound	RT	0.00	35	0	0.000	Lost Time:	0.100
	TH	1.00	201	1,600	0.169 *	ITS:	0.000
	LT	0.00	35	1,600	0.022		
Eastbound	RT	0.00	24	0	0.000	ICU:	0.613
	TH	2.00	794	1,600	0.273 *		
	LT	0.00	57	1,600	0.036	LOS:	B

* - Denotes critical movement

Project Title: 517 E Broadway
Intersection: 3 - Glendale Avenue & Broadway
Description: Future Base

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %
OLA Movements :
FF Movements:

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	156	1,600	0.077	N-S(1):	0.191
	TH	2.00	808	3,200	0.253 *	N-S(2):	0.304 *
	LT	1.00	77	1,600	0.048	E-W(1):	0.190
Westbound	RT	0.00	53	0	0.000	E-W(2):	0.226 *
	TH	2.00	539	3,200	0.185 *		
	LT	1.00	143	1,600	0.089	V/C:	0.530
Northbound	RT	1.00	52	1,600	0.000	Lost Time:	0.100
	TH	2.00	457	3,200	0.143	ITS:	0.000
	LT	1.00	82	1,600	0.051 *		
Eastbound	RT	0.00	60	0	0.000	ICU:	0.630
	TH	2.00	263	3,200	0.101		
	LT	1.00	66	1,600	0.041 *	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	161	1,600	0.042	N-S(1):	0.286
	TH	2.00	753	3,200	0.235 *	N-S(2):	0.291 *
	LT	1.00	120	1,600	0.075	E-W(1):	0.310 *
Westbound	RT	0.00	103	0	0.000	E-W(2):	0.290
	TH	2.00	451	3,200	0.173		
	LT	1.00	105	1,600	0.066 *	V/C:	0.601
Northbound	RT	0.00	133	0	0.000	Lost Time:	0.100
	TH	3.00	879	4,800	0.211	ITS:	0.000
	LT	1.00	90	1,600	0.056 *		
Eastbound	RT	0.00	151	0	0.000	ICU:	0.701
	TH	2.00	629	3,200	0.244 *		
	LT	1.00	187	1,600	0.117	LOS:	C

* - Denotes critical movement

Project Title: 517 E Broadway
Intersection: 4 - Isabel Street & Wilson Avenue
Description: Future Base

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %
OLA Movements :
FF Movements:

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	14	0	0.000	N-S(1):	0.059
	TH	1.00	62	1,600	0.064 *	N-S(2):	0.071 *
	LT	0.00	26	1,600	0.016	E-W(1):	0.264
Westbound	RT	0.11	58	172	0.329	E-W(2):	0.348 *
	TH	0.89	482	1,428	0.338 *		
	LT	1.00	69	1,600	0.043	V/C:	0.419
Northbound	RT	0.00	28	0	0.000	Lost Time:	0.100
	TH	1.00	29	1,600	0.043	ITS:	0.000
	LT	0.00	11	1,600	0.007 *		
Eastbound	RT	0.04	13	59	0.217	ICU:	0.519
	TH	0.96	340	1,541	0.221		
	LT	1.00	16	1,600	0.010 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	19	0	0.000	N-S(1):	0.149 *
	TH	1.00	60	1,600	0.071	N-S(2):	0.087
	LT	0.00	34	1,600	0.021 *	E-W(1):	0.468
Westbound	RT	0.23	174	373	0.456	E-W(2):	0.489 *
	TH	0.77	572	1,227	0.466 *		
	LT	1.00	71	1,600	0.044	V/C:	0.638
Northbound	RT	0.00	47	0	0.000	Lost Time:	0.100
	TH	1.00	131	1,600	0.128 *	ITS:	0.000
	LT	0.00	26	1,600	0.016		
Eastbound	RT	0.03	20	47	0.416	ICU:	0.738
	TH	0.97	659	1,553	0.424		
	LT	1.00	37	1,600	0.023 *	LOS:	C

* - Denotes critical movement

FUTURE+PROJECT CONDITIONS

Project Title: 517 E Broadway
Intersection: 1 - Isabel Street & Broadway
Description: Future plus Project

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %
OLA Movements :
FF Movements:

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	44	0	0.000	N-S(1):	0.047
	TH	1.00	45	1,600	0.075 *	N-S(2):	0.080 *
	LT	0.00	31	1,600	0.019	E-W(1):	0.138
Westbound	RT	0.00	68	0	0.000	E-W(2):	0.287 *
	TH	2.00	760	1,600	0.269 *		
	LT	0.00	32	1,600	0.020	V/C:	0.367
Northbound	RT	0.00	12	0	0.000	Lost Time:	0.100
	TH	1.00	24	1,600	0.028	ITS:	0.000
	LT	0.00	8	1,600	0.005 *		
Eastbound	RT	0.00	21	0	0.000	ICU:	0.467
	TH	2.00	329	1,600	0.118		
	LT	0.00	28	1,600	0.018 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	62	0	0.000	N-S(1):	0.135
	TH	1.00	57	1,600	0.140 *	N-S(2):	0.148 *
	LT	0.00	105	1,600	0.066	E-W(1):	0.293 *
Westbound	RT	0.00	44	0	0.000	E-W(2):	0.248
	TH	2.00	651	1,600	0.222		
	LT	0.00	14	1,600	0.009 *	V/C:	0.441
Northbound	RT	0.00	34	0	0.000	Lost Time:	0.100
	TH	1.00	64	1,600	0.069	ITS:	0.000
	LT	0.00	12	1,600	0.008 *		
Eastbound	RT	0.00	24	0	0.000	ICU:	0.541
	TH	2.00	844	1,600	0.284 *		
	LT	0.00	41	1,600	0.026	LOS:	A

* - Denotes critical movement

Project Title: 517 E Broadway
Intersection: 2 - Jackson Street & Broadway
Description: Future plus Project

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %
OLA Movements :
FF Movements:

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	45	0	0.000	N-S(1):	0.133
	TH	1.00	161	1,600	0.171 *	N-S(2):	0.187 *
	LT	0.00	67	1,600	0.042	E-W(1):	0.124
Westbound	RT	0.00	39	0	0.000	E-W(2):	0.264 *
	TH	2.00	721	1,600	0.246 *		
	LT	0.00	26	1,600	0.016	V/C:	0.451
Northbound	RT	0.00	19	0	0.000	Lost Time:	0.100
	TH	1.00	102	1,600	0.091	ITS:	0.000
	LT	0.00	25	1,600	0.016 *		
Eastbound	RT	0.00	18	0	0.000	ICU:	0.551
	TH	2.00	300	1,600	0.108		
	LT	0.00	28	1,600	0.018 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	70	0	0.000	N-S(1):	0.227 *
	TH	1.00	166	1,600	0.204	N-S(2):	0.226
	LT	0.00	91	1,600	0.057 *	E-W(1):	0.288 *
Westbound	RT	0.00	62	0	0.000	E-W(2):	0.266
	TH	2.00	650	1,600	0.230		
	LT	0.00	23	1,600	0.014 *	V/C:	0.515
Northbound	RT	0.00	35	0	0.000	Lost Time:	0.100
	TH	1.00	202	1,600	0.170 *	ITS:	0.000
	LT	0.00	35	1,600	0.022		
Eastbound	RT	0.00	24	0	0.000	ICU:	0.615
	TH	2.00	794	1,600	0.274 *		
	LT	0.00	58	1,600	0.036	LOS:	B

* - Denotes critical movement

Project Title: 517 E Broadway
Intersection: 3 - Glendale Avenue & Broadway
Description: Future plus Project

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %
OLA Movements :
FF Movements:

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	164	1,600	0.081	N-S(1):	0.191
	TH	2.00	808	3,200	0.253 *	N-S(2):	0.311 *
	LT	1.00	77	1,600	0.048	E-W(1):	0.191
Westbound	RT	0.00	53	0	0.000	E-W(2):	0.232 *
	TH	2.00	551	3,200	0.189 *		
	LT	1.00	143	1,600	0.089	V/C:	0.543
Northbound	RT	1.00	52	1,600	0.000	Lost Time:	0.100
	TH	2.00	457	3,200	0.143	ITS:	0.000
	LT	1.00	92	1,600	0.058 *		
Eastbound	RT	0.00	62	0	0.000	ICU:	0.643
	TH	2.00	265	3,200	0.102		
	LT	1.00	68	1,600	0.043 *	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	163	1,600	0.042	N-S(1):	0.286
	TH	2.00	753	3,200	0.235 *	N-S(2):	0.293 *
	LT	1.00	120	1,600	0.075	E-W(1):	0.315 *
Westbound	RT	0.00	103	0	0.000	E-W(2):	0.295
	TH	2.00	454	3,200	0.174		
	LT	1.00	105	1,600	0.066 *	V/C:	0.608
Northbound	RT	0.00	133	0	0.000	Lost Time:	0.100
	TH	3.00	879	4,800	0.211	ITS:	0.000
	LT	1.00	93	1,600	0.058 *		
Eastbound	RT	0.00	159	0	0.000	ICU:	0.708
	TH	2.00	638	3,200	0.249 *		
	LT	1.00	193	1,600	0.121	LOS:	C

* - Denotes critical movement

Project Title: 517 E Broadway
Intersection: 4 - Isabel Street & Wilson Avenue
Description: Future plus Project

Thru Lane: 1600 vph
Left Lane: 1600 vph
Double Lt Penalty: 20 %
ITS: 0 %
OLA Movements :
FF Movements:

N-S Split Phase : N
E-W Split Phase : N
Lost Time (% of cycle) : 10
V/C Round Off (decs.) : 3

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	14	0	0.000	N-S(1):	0.059
	TH	1.00	63	1,600	0.064 *	N-S(2):	0.071 *
	LT	0.00	26	1,600	0.016	E-W(1):	0.266
Westbound	RT	0.11	58	172	0.329	E-W(2):	0.348 *
	TH	0.89	482	1,428	0.338 *		
	LT	1.00	72	1,600	0.045	V/C:	0.419
Northbound	RT	0.00	29	0	0.000	Lost Time:	0.100
	TH	1.00	29	1,600	0.043	ITS:	0.000
	LT	0.00	11	1,600	0.007 *		
Eastbound	RT	0.04	13	59	0.217	ICU:	0.519
	TH	0.96	340	1,541	0.221		
	LT	1.00	16	1,600	0.010 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	19	0	0.000	N-S(1):	0.150 *
	TH	1.00	60	1,600	0.071	N-S(2):	0.087
	LT	0.00	34	1,600	0.021 *	E-W(1):	0.469
Westbound	RT	0.23	174	373	0.456	E-W(2):	0.489 *
	TH	0.77	572	1,227	0.466 *		
	LT	1.00	72	1,600	0.045	V/C:	0.639
Northbound	RT	0.00	49	0	0.000	Lost Time:	0.100
	TH	1.00	132	1,600	0.129 *	ITS:	0.000
	LT	0.00	26	1,600	0.016		
Eastbound	RT	0.03	20	47	0.416	ICU:	0.739
	TH	0.97	659	1,553	0.424		
	LT	1.00	37	1,600	0.023 *	LOS:	C

* - Denotes critical movement

INTERSECTION 5

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	14	114	7	11	231	30	1	2	4	24	4	33
Future Vol, veh/h	14	114	7	11	231	30	1	2	4	24	4	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	124	8	12	251	33	1	2	4	26	4	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	284	0	0	132	0	0	469	466	128	452	453	267
Stage 1	-	-	-	-	-	-	158	158	-	291	291	-
Stage 2	-	-	-	-	-	-	311	308	-	161	162	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1278	-	-	1453	-	-	505	494	922	518	503	772
Stage 1	-	-	-	-	-	-	844	767	-	717	672	-
Stage 2	-	-	-	-	-	-	699	660	-	841	764	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1278	-	-	1453	-	-	470	483	922	505	491	772
Mov Cap-2 Maneuver	-	-	-	-	-	-	470	483	-	505	491	-
Stage 1	-	-	-	-	-	-	833	757	-	708	665	-
Stage 2	-	-	-	-	-	-	656	653	-	824	754	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.3	10.5	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	660	1278	-	-	1453	-	-	620
HCM Lane V/C Ratio	0.012	0.012	-	-	0.008	-	-	0.107
HCM Control Delay (s)	10.5	7.9	0	-	7.5	0	-	11.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	26	362	20	34	260	40	7	8	25	34	5	38
Future Vol, veh/h	26	362	20	34	260	40	7	8	25	34	5	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	393	22	37	283	43	8	9	27	37	5	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	326	0	0	415	0	0	863	861	404	857	850	304
Stage 1	-	-	-	-	-	-	461	461	-	378	378	-
Stage 2	-	-	-	-	-	-	402	400	-	479	472	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1234	-	-	1144	-	-	275	293	647	277	298	736
Stage 1	-	-	-	-	-	-	581	565	-	644	615	-
Stage 2	-	-	-	-	-	-	625	602	-	568	559	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1234	-	-	1144	-	-	242	273	647	245	277	736
Mov Cap-2 Maneuver	-	-	-	-	-	-	242	273	-	245	277	-
Stage 1	-	-	-	-	-	-	564	548	-	625	590	-
Stage 2	-	-	-	-	-	-	561	578	-	519	542	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.8	14.7	17.6
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	413	1234	-	-	1144	-	-	369
HCM Lane V/C Ratio	0.105	0.023	-	-	0.032	-	-	0.227
HCM Control Delay (s)	14.7	8	0	-	8.3	0	-	17.6
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0.1	-	-	0.9

HCM 2010 TWSC
5: Harvard St & Isabel St

01/16/2019

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	15	114	7	11	231	30	1	2	4	24	4	33
Future Vol, veh/h	15	114	7	11	231	30	1	2	4	24	4	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	124	8	12	251	33	1	2	4	26	4	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	284	0	0	132	0	0	471	468	128	455	455	267
Stage 1	-	-	-	-	-	-	160	160	-	291	291	-
Stage 2	-	-	-	-	-	-	311	308	-	164	164	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1278	-	-	1453	-	-	503	493	922	515	501	772
Stage 1	-	-	-	-	-	-	842	766	-	717	672	-
Stage 2	-	-	-	-	-	-	699	660	-	838	762	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1278	-	-	1453	-	-	468	481	922	502	489	772
Mov Cap-2 Maneuver	-	-	-	-	-	-	468	481	-	502	489	-
Stage 1	-	-	-	-	-	-	830	755	-	707	665	-
Stage 2	-	-	-	-	-	-	656	653	-	820	751	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0.3	10.5	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	658	1278	-	-	1453	-	-	618
HCM Lane V/C Ratio	0.012	0.013	-	-	0.008	-	-	0.107
HCM Control Delay (s)	10.5	7.9	0	-	7.5	0	-	11.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.4

HCM 2010 TWSC
5: Harvard St & Isabel St

01/16/2019

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	26	362	20	34	260	40	7	8	25	34	5	39
Future Vol, veh/h	26	362	20	34	260	40	7	8	25	34	5	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	393	22	37	283	43	8	9	27	37	5	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	326	0	0	415	0	0	863	861	404	857	850	304
Stage 1	-	-	-	-	-	-	461	461	-	378	378	-
Stage 2	-	-	-	-	-	-	402	400	-	479	472	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1234	-	-	1144	-	-	275	293	647	277	298	736
Stage 1	-	-	-	-	-	-	581	565	-	644	615	-
Stage 2	-	-	-	-	-	-	625	602	-	568	559	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1234	-	-	1144	-	-	242	273	647	245	277	736
Mov Cap-2 Maneuver	-	-	-	-	-	-	242	273	-	245	277	-
Stage 1	-	-	-	-	-	-	564	548	-	625	590	-
Stage 2	-	-	-	-	-	-	560	578	-	519	542	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.8	14.7	17.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	413	1234	-	-	1144	-	-	372
HCM Lane V/C Ratio	0.105	0.023	-	-	0.032	-	-	0.228
HCM Control Delay (s)	14.7	8	0	-	8.3	0	-	17.5
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0.1	-	-	0.9

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	14	117	7	11	238	31	1	2	4	25	4	34
Future Vol, veh/h	14	117	7	11	238	31	1	2	4	25	4	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	127	8	12	259	34	1	2	4	27	4	37

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	292	0	0	135	0	0	481	477	131	464	464	276
Stage 1	-	-	-	-	-	-	161	161	-	299	299	-
Stage 2	-	-	-	-	-	-	320	316	-	165	165	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1270	-	-	1449	-	-	495	487	919	508	495	763
Stage 1	-	-	-	-	-	-	841	765	-	710	666	-
Stage 2	-	-	-	-	-	-	692	655	-	837	762	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1270	-	-	1449	-	-	460	476	919	495	484	763
Mov Cap-2 Maneuver	-	-	-	-	-	-	460	476	-	495	484	-
Stage 1	-	-	-	-	-	-	830	755	-	701	659	-
Stage 2	-	-	-	-	-	-	648	648	-	820	752	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.3	10.6	11.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	652	1270	-	-	1449	-	-	610
HCM Lane V/C Ratio	0.012	0.012	-	-	0.008	-	-	0.112
HCM Control Delay (s)	10.6	7.9	0	-	7.5	0	-	11.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	27	373	21	35	268	41	7	8	26	35	5	39
Future Vol, veh/h	27	373	21	35	268	41	7	8	26	35	5	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	405	23	38	291	45	8	9	28	38	5	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	336	0	0	428	0	0	890	888	417	884	877	314
Stage 1	-	-	-	-	-	-	476	476	-	390	390	-
Stage 2	-	-	-	-	-	-	414	412	-	494	487	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1223	-	-	1131	-	-	264	283	636	266	287	726
Stage 1	-	-	-	-	-	-	570	557	-	634	608	-
Stage 2	-	-	-	-	-	-	616	594	-	557	550	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1223	-	-	1131	-	-	231	263	636	234	266	726
Mov Cap-2 Maneuver	-	-	-	-	-	-	231	263	-	234	266	-
Stage 1	-	-	-	-	-	-	552	540	-	614	582	-
Stage 2	-	-	-	-	-	-	550	569	-	507	533	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.8	15	18.3
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	404	1223	-	-	1131	-	-	356
HCM Lane V/C Ratio	0.11	0.024	-	-	0.034	-	-	0.241
HCM Control Delay (s)	15	8	0	-	8.3	0	-	18.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0.1	-	-	0.9

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	15	117	7	11	238	31	1	2	4	25	4	34
Future Vol, veh/h	15	117	7	11	238	31	1	2	4	25	4	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	127	8	12	259	34	1	2	4	27	4	37

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	292	0	0	135	0	0	484	480	131	466	466	276
Stage 1	-	-	-	-	-	-	164	164	-	299	299	-
Stage 2	-	-	-	-	-	-	320	316	-	167	167	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1270	-	-	1449	-	-	493	485	919	507	494	763
Stage 1	-	-	-	-	-	-	838	762	-	710	666	-
Stage 2	-	-	-	-	-	-	692	655	-	835	760	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1270	-	-	1449	-	-	457	473	919	494	482	763
Mov Cap-2 Maneuver	-	-	-	-	-	-	457	473	-	494	482	-
Stage 1	-	-	-	-	-	-	826	751	-	700	659	-
Stage 2	-	-	-	-	-	-	648	648	-	817	749	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.3	10.6	11.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	650	1270	-	-	1449	-	-	609
HCM Lane V/C Ratio	0.012	0.013	-	-	0.008	-	-	0.112
HCM Control Delay (s)	10.6	7.9	0	-	7.5	0	-	11.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.4

HCM 2010 TWSC
5: Harvard St & Isabel St

01/16/2019

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	27	373	21	35	268	41	7	8	26	35	5	40
Future Vol, veh/h	27	373	21	35	268	41	7	8	26	35	5	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	405	23	38	291	45	8	9	28	38	5	43

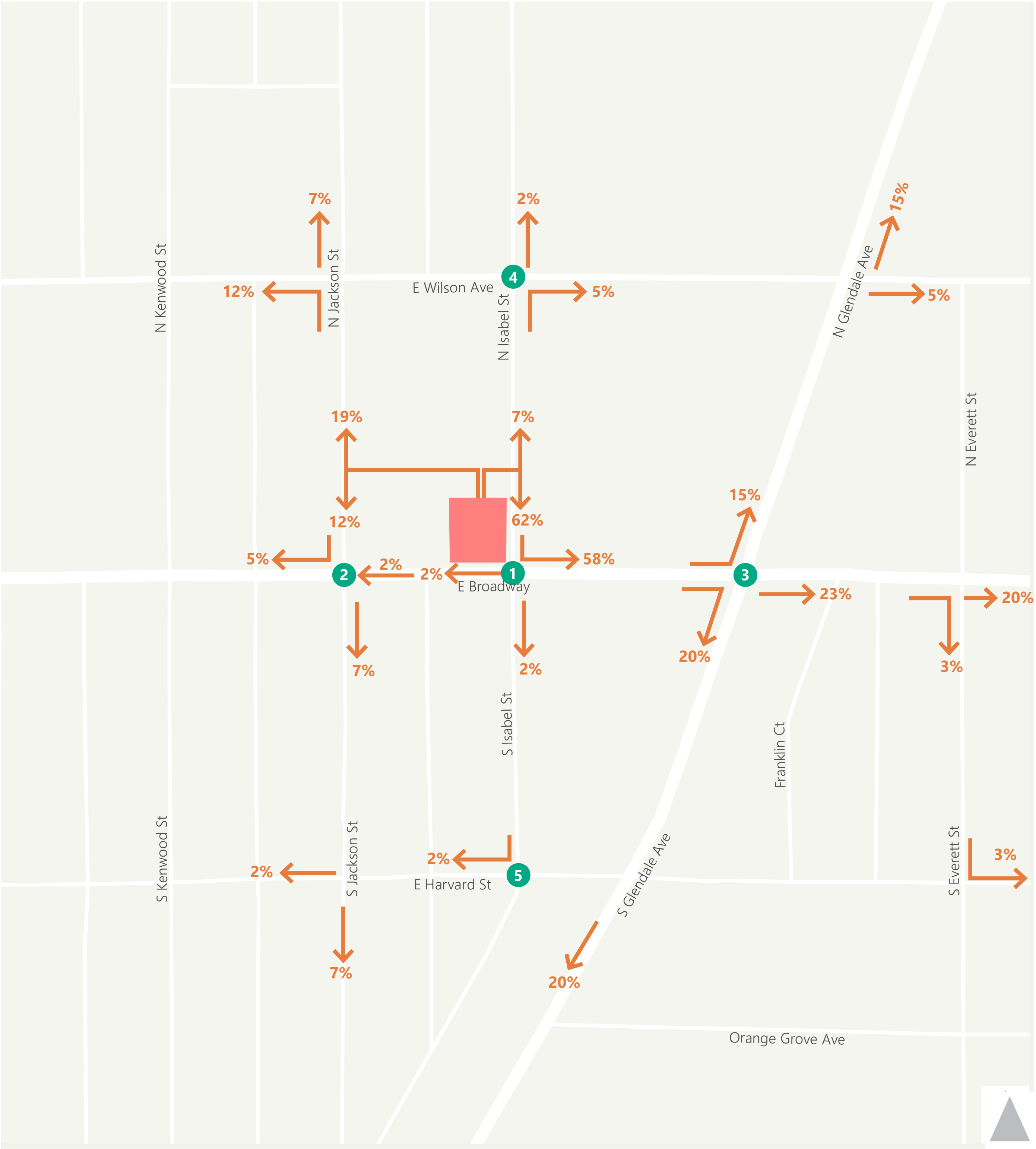
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	336	0	0	428	0	0	890	888	417	884	877	314
Stage 1	-	-	-	-	-	-	476	476	-	390	390	-
Stage 2	-	-	-	-	-	-	414	412	-	494	487	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1223	-	-	1131	-	-	264	283	636	266	287	726
Stage 1	-	-	-	-	-	-	570	557	-	634	608	-
Stage 2	-	-	-	-	-	-	616	594	-	557	550	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1223	-	-	1131	-	-	231	263	636	234	266	726
Mov Cap-2 Maneuver	-	-	-	-	-	-	231	263	-	234	266	-
Stage 1	-	-	-	-	-	-	552	540	-	614	582	-
Stage 2	-	-	-	-	-	-	550	569	-	507	533	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.8	15	18.3
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	404	1223	-	-	1131	-	-	358
HCM Lane V/C Ratio	0.11	0.024	-	-	0.034	-	-	0.243
HCM Control Delay (s)	15	8	0	-	8.3	0	-	18.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0.1	-	-	0.9

APPENDIX D:

INTERSECTION-LEVEL TRIP DISTRIBUTION



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Intersection-Level Trip Distribution