



Traffic Impact Study

for the proposed:

Gateway Downtown Parcels B, C and D

In the City of San Bernardino

October, 2022

Kimley»»Horn

**TRAFFIC IMPACT STUDY
FOR THE PROPOSED
GATEWAY DOWNTOWN PARCELS B, C & D
IN THE CITY OF SAN BERNARDINO**

Prepared For:



City of San Bernardino
290 N D St
San Bernardino, CA 92401

Prepared by:

Kimley-Horn and Associates, Inc.
10 Almaden Blvd., Suite 1250
San Jose, California 95113



FINAL REPORT

October 2022

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**TRAFFIC IMPACT STUDY
FOR THE PROPOSED
GATEWAY DOWNTOWN PROJECT PARCEL B, C & D
IN THE CITY OF SAN BERNARDINO**

INTRODUCTION

Purpose and Study Objectives

This traffic impact study has been prepared to address the traffic-related impacts of the proposed Gateway Downtown project Parcels B, C and D in the City of San Bernardino. This traffic study has been conducted in accordance with the City of San Bernardino *Traffic Impact Study Guidelines* (August 2020), and in accordance with the San Bernardino Association of Governments (SANBAG) Congestion Management Program (CMP) requirements.

This report includes a description of existing traffic conditions in the surrounding area, estimated project trip generation and distribution, future traffic growth, and an assessment of project-related impacts on the roadway system. In addition, the report includes a queuing analysis for each of the parcels. Where necessary, circulation system improvements have been identified to mitigate project impacts at the study locations.

Project Overview

The Gateway Downtown Parcel B, C and D project site is in the northeast, southeast and the southwest corners of the intersection of 5th Street and G Street in the City of San Bernardino. All three parcels are currently vacant.

The project proposes to construct a Fast-Food restaurant in Parcel B (northeast quadrant) totaling 2,325 square feet, automated car wash (Quick Quack) in Parcel C (southeast quadrant) totaling 3,596 square feet and a Fast-Food restaurant (SONIC) in Parcel D (southwest quadrant) totaling 2,321 square feet. An overall Site Plan showing all the parcels along with the proposed driveway is shown in **Figure 1**.

Individual site plans for Parcels B, C and D are shown in **Figure 2**, **Figure 3**, and **Figure 4**. Vehicular access for Parcel B is proposed via a Right-In/Right-Out (RIRO) driveway on 5th Street and a full access driveway on G Street. For Parcel C, vehicular access is proposed via a full access driveway on 5th Street and an exit only driveway on G Street. For Parcel D, vehicular access is proposed via a full access driveway on 5th Street and G Street. The existing driveway on 5th Street to the In-N-Out parcel will be closed and Parcel D driveway on 5th Street will be used as a combined driveway for both parcels. Even though the combined driveway was analyzed, it should be noted that the queues for existing In-N-Out facility is not studied as part of this report. All project driveways to the site (Parcel B, Parcel C and Parcel D) would be unsignalized with side street stop controlled.

FIGURE 1 - Vicinity Map

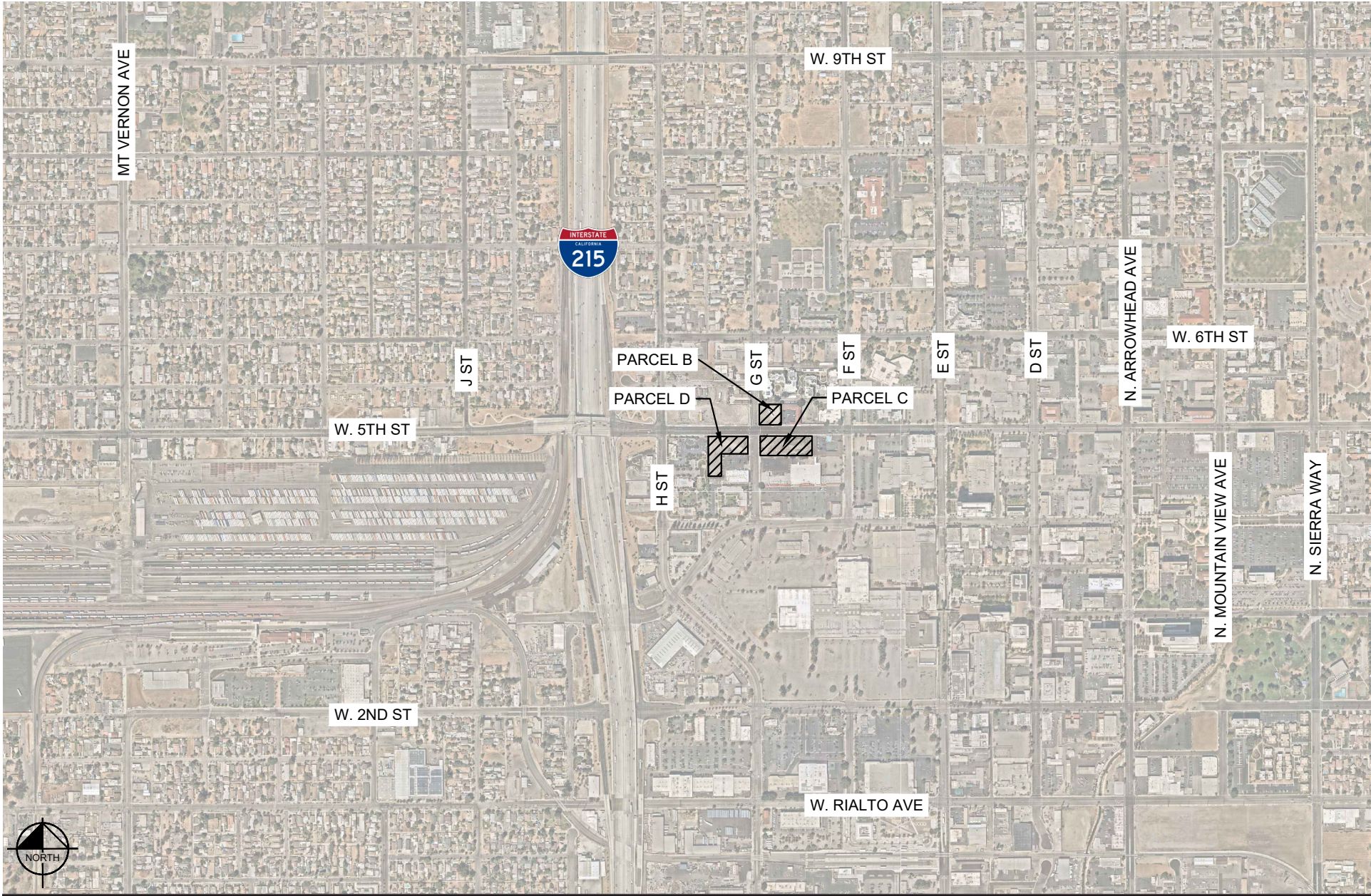
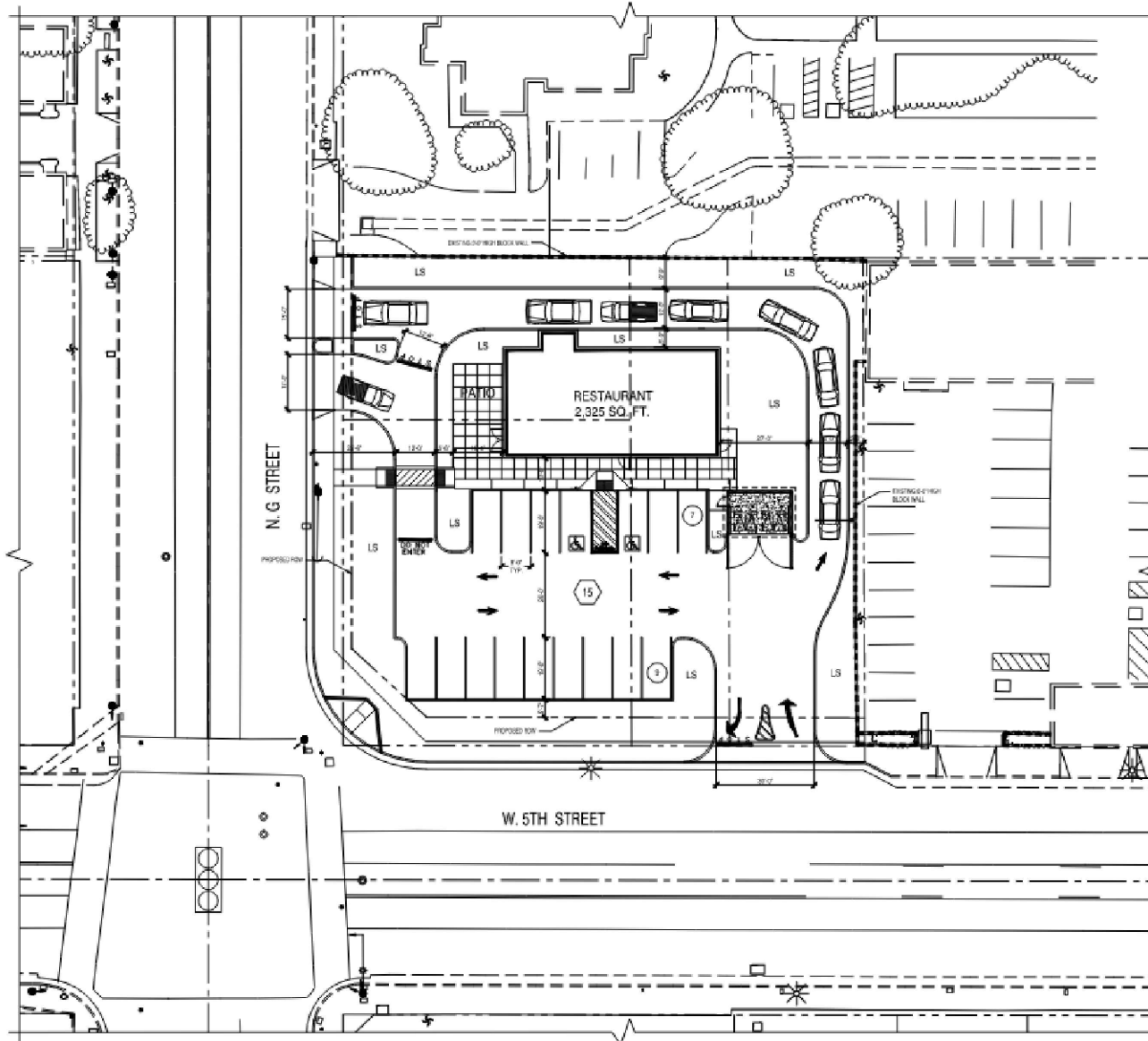


FIGURE 2 - Parcel B Site Plan



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Scale : 1/16" = 1'-0"



FIGURE 3 - Parcel C Site Plan



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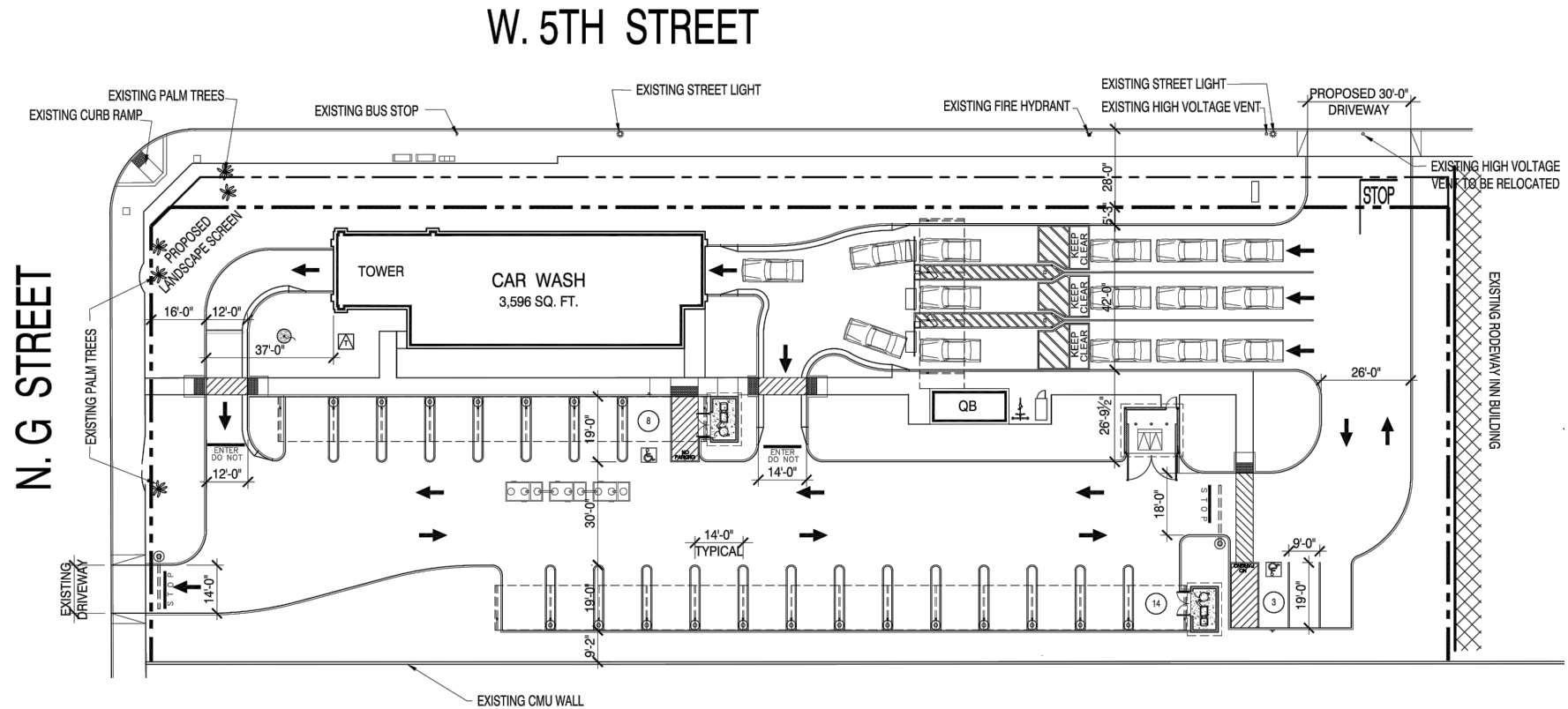
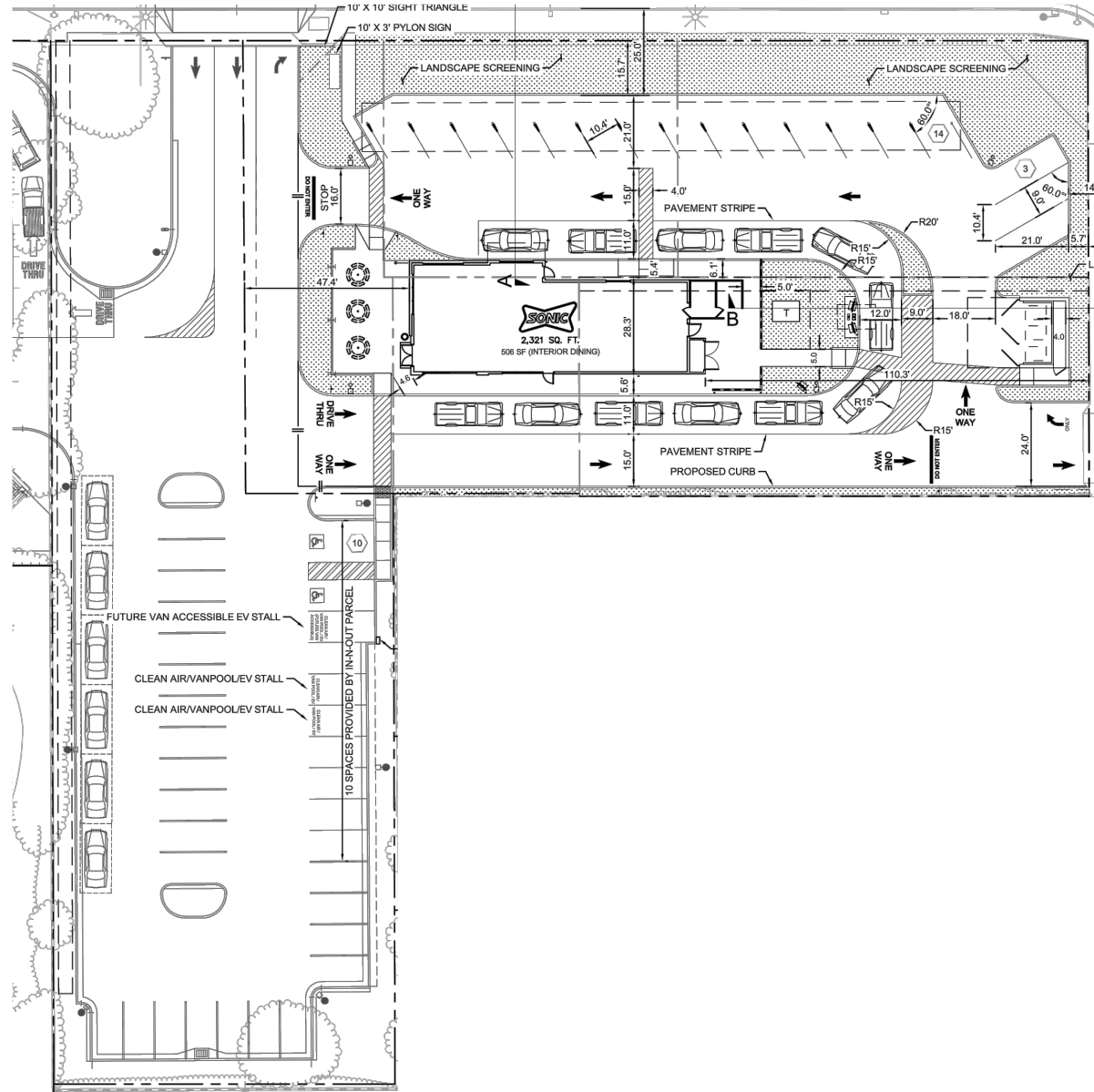


FIGURE 4 - Parcel D Site Plan



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ANALYSIS SCENARIOS AND METHODOLOGY

Analysis Scenarios

In accordance with the City of San Bernardino *Traffic Impact Study Guidelines*, the project will be evaluated in the morning and evening peak hours for the following conditions:

- Existing Conditions (2022)
- Opening Year (2023) Base Traffic Conditions
- Opening Year (2023) Plus Other Projects Traffic Conditions
- Opening Year (2023) Plus Other Projects Plus Project Traffic Conditions
- Opening Year Plus Other Projects Plus Project Traffic with Improvements (if necessary)
- Horizon Year 2040 Cumulative Base
- Horizon Year 2040 Plus Project Traffic
- Horizon Year 2040 Plus Project Traffic with Improvements (if necessary)

Study Locations

The study locations were established in consultation with City staff through the Scoping Agreement process (Scope of Study Form of the City of San Bernardino *Traffic Impact Study Guidelines*). A copy of the approved Scope of Study Form is provided in **Appendix A**.

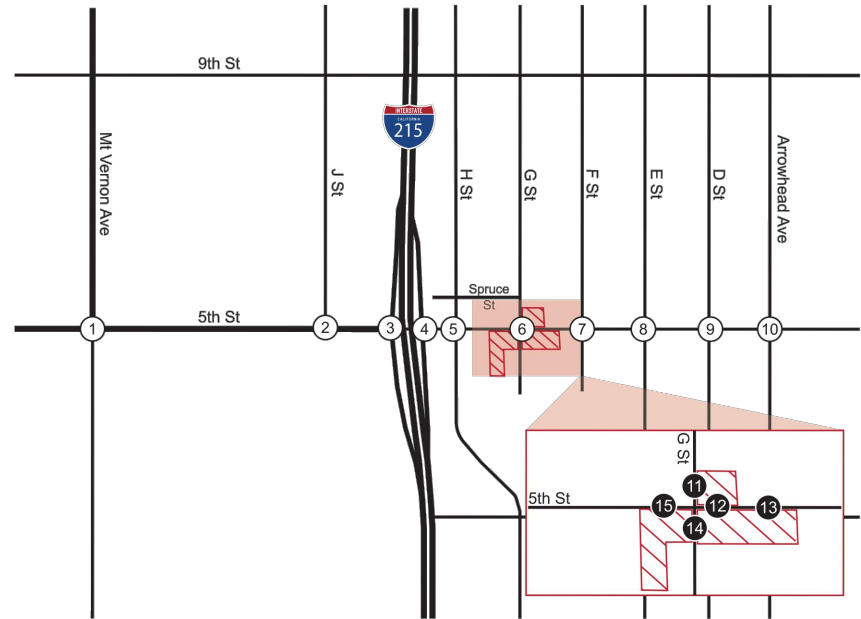
Study Intersections:

1. 5th Street at Mount Vernon Avenue
2. 5th Street at J Street
3. 5th Street at Southbound I-215 Ramps
4. 5th Street at Northbound I-215 Ramps
5. 5th Street at H Street
6. 5th Street at G Street
7. 5th Street at F Street
8. 5th Street at E Street
9. 5th Street at D Street
10. 5th Street at Arrowhead Avenue
11. Project Driveway 1 at G Street (north of 5th Street – Parcel B)
12. Project Driveway 2 at 5th Street (east of G Street – Parcel B)
13. Project Driveway 3 at 5th Street (east of G Street – Parcel C)
14. Project Driveway 4 & 5 at G Street (south of 5th Street – Parcel C & D)
15. Project Driveway 6 at 5th Street (west of G Street – Parcel D)

Existing lane configurations and traffic control at the study intersections are shown on **Figure 5**.

FIGURE 5 - Existing Lane Configuration and Traffic Control

5th St at Mt. Vernon Ave	5th St at J St	5th St at I-215 SB Ramps	5th St at I-215 NB Ramps	5th St at H St
5th St at G St	5th St at F St	5th St at E St	5th St at D St	5th St at Arrowhead Ave
G St at Proj Dwy 1	5th St at Proj Dwy 2	5th St at Proj Dwy 3	G St at Proj Dwy 4 & 5	5th St at Proj Dwy 6



Legend:

- ⊗ Signalized
- ⊗ Unsignalized
- - - Proposed Project Driveway
- TWLTL Two-Way Left-Turn Lane



Study Roadway Segments:

1. 5th Street between J Street and Southbound I-215 Ramps
2. 5th Street between Southbound I-215 Ramps and Northbound I-215 Ramps
3. 5th Street between Northbound I-215 Ramps and H Street
4. 5th Street between H Street and G Street
5. 5th Street between G Street and F Street
6. 5th Street between F Street and E Street
7. 5th Street between E Street and D Street
8. 5th Street between D Street and Arrowhead Avenue

Intersection Analysis – HCM Methodology

Peak hour intersection operations were evaluated using the methodology outlined in the Highway Capacity Manual (HCM) 6th Edition, consistent with the requirements of the City of San Bernardino and the San Bernardino County CMP. The intersection analysis was conducted using the Synchro 11.0 software program and using the input parameters specified in the San Bernardino County CMP.

Per the HCM Methodology, Level of Service (LOS) for signalized intersections is defined in terms of average vehicle delay. Specifically, LOS criteria are stated in terms of the average control delay per vehicle during the peak hours. The average control delay includes initial deceleration delay, queue move-up time, and final acceleration time in addition to the stop delay.

The procedure for unsignalized intersection analysis determines the average total delay, expressed in seconds of delay per vehicle, for left turns from the major street and from the stop-controlled minor street traffic stream. Delay values are calculated based on the relationship between traffic on the major street and the availability of acceptable “gaps” in this stream through which conflicting traffic movements can be made.

The following charts provide a description of the operating characteristics of each Level of Service and average seconds of delay for signalized and unsignalized intersections.

LEVEL OF SERVICE DEFINITIONS	
Level of Service	Description
A	No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted but not objectionably so.
D	This level encompasses a zone of increasing restriction, approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

LEVEL OF SERVICE CRITERIA FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS		
Level of Service ¹	Signalized Intersection (Average delay per vehicle, in seconds) ²	Unsignalized Intersections (Average delay per vehicle, in seconds) ³
A	≤ 10	0 - 10
B	> 10 - 20	> 10 - 15
C	> 20 - 35	> 15 - 25
D	> 35 - 55	> 25 - 35
E	> 55 - 80	> 35 - 50
F	> 80	> 50

¹ Per the San Bernardino County CMP, intersections will be considered deficient (LOS F) if the critical v/c ratio equals or exceeds 1.0.

² Source: Highway Capacity Manual (HCM 6th Edition), Exhibit 18-4.

³ Source: Highway Capacity Manual (HCM 6th Edition), Exhibits 19-1 and 20-2.

Roadway Segment Analysis

City of San Bernardino Traffic *Impact Study Guidelines* state that urban roadway segments (i.e., segments on roadways that are generally signalized with spacing less than 2 miles) do not require segment analysis. As such, the roadway segment analysis Presented in this report is provided for informational purposes. Roadway segments are evaluated by comparing the daily traffic volume to the daily capacity of that segment, to determine the volume-to-capacity (v/c) ratio. Daily capacity is based on the roadway classification, as shown in the following chart:

CITY OF SAN BERNARDINO ROADWAY CAPACITY STANDARDS		
Roadway Classification	Number of Lanes	Daily Capacity (Vehicles per day)
Major Arterial	6	60,000
Major Arterial	4	40,000
Major Arterial	2	15,000
Secondary Arterial	4	30,000
Secondary Arterial	2	12,000
Collector Street	4	25,000
Collector Street	2	10,000
<i>Source: City of San Bernardino General Plan</i>		

Level of Service Standards

The City of San Bernardino General Plan Circulation Plan establishes minimum Level of Service standards, which require that City intersections operate at LOS D or better during the morning and evening peak hours, and that roadway segments operate at LOS C or better. Traffic operational problems at an intersection are identified when any of the following changes in the volume-to-capacity (V/C) ratio occurs between the “without project” and the “plus project” conditions:

LOS Without Project	V/C Difference
C	> 0.0400
D	> 0.0200
E, F	> 0.0100

Per the City of San Bernardino Traffic Impact Study Guidelines, project opening day and future scenarios with project require that traffic operational problems be addressed to provide LOS D or better operation. Therefore, project traffic operational problems were assumed to occur when intersection LOS was projected to fall below the minimum LOS standards outlined above. The LOS threshold for State highway facilities will be the same as the jurisdiction where the facility is located.

Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing LOS should be maintained. Note that V/C ratio for each study intersection was reported using HCM 2000 Synchro outputs.

General Plan Circulation Plan

The City of San Bernardino General Plan Circulation Plan provides roadway designations for the roadway system serving the project site and the surrounding vicinity. A copy of the City's Circulation Plan is provided on **Figure 6**.

EXISTING TRAFFIC CONDITIONS

Existing Street System

Regional access to the site is provided primarily by the Interstate 215 (I-215) Freeway, located about a mile to the west of the project site. In addition, the I-10 Freeway is located approximately 3 miles to the south of the site. The following provides a description of the roadways surrounding the project site.

5th Street is an east-west roadway with 2 lanes in each direction and a center two-way left-turn lane. The posted speed limit is 40 mph and on-street parking is prohibited on both sides. 5th Street would provide access (entry/exit) to Parcel B, Parcel C and Parcel D via three driveways and is designated as a Major Arterial in the City of San Bernardino Circulation Plan.

G Street is a north-south roadway with 1 to 2 lanes in each direction and a center two-way left-turn lane. The posted speed limit is 35 mph and on-street parking is permitted intermittently. G Street will provide access (entry/exit) to Parcel D and exits only driveways from Parcel B and Parcel C. G Street is designated as Secondary Arterial in the City of San Bernardino Circulation Plan.

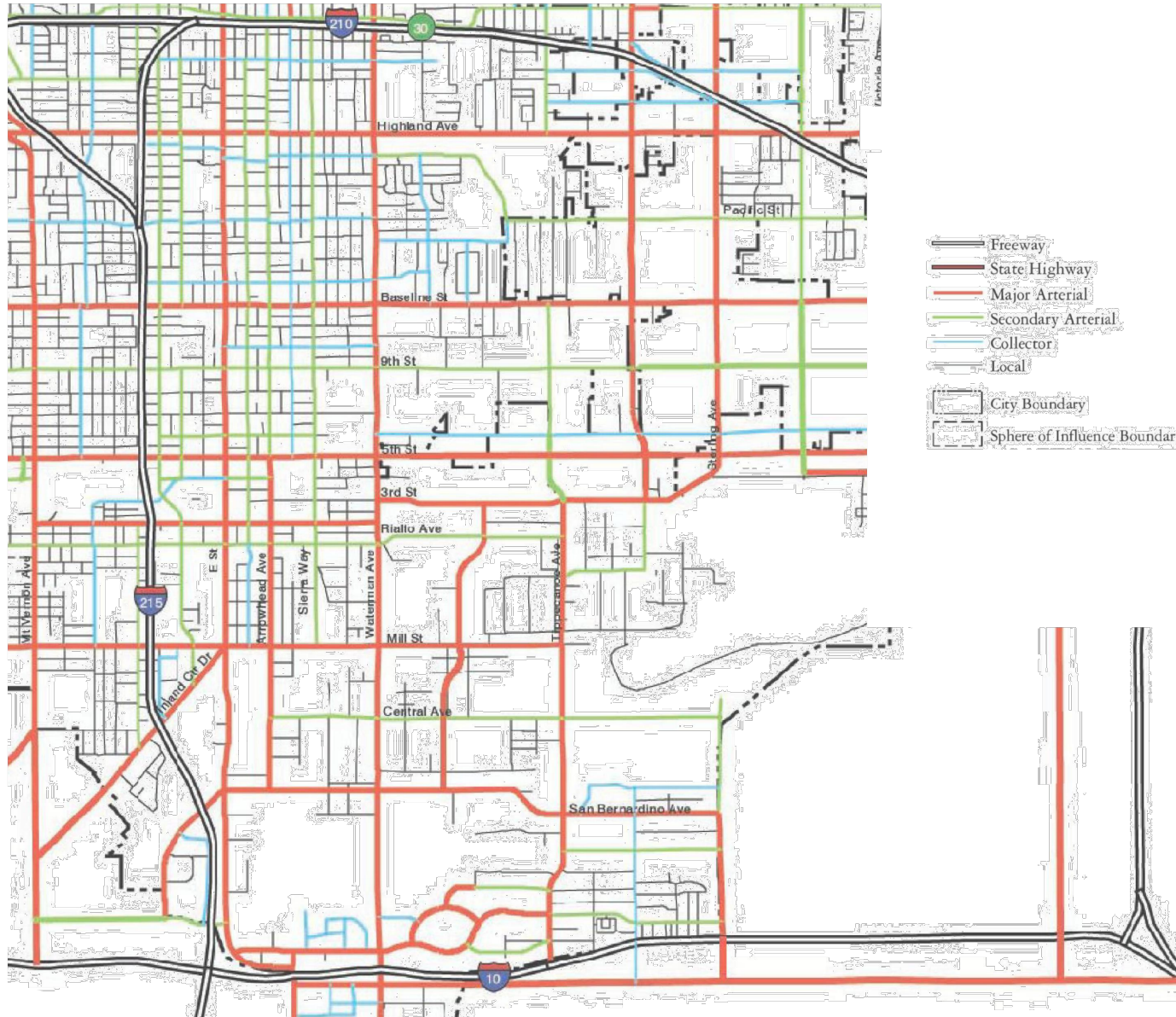
H Street is a north-south roadway with 1 to 2 lanes in each direction. The posted speed limit is 35 mph and on-street parking is permitted intermittently. H Street is designated as Secondary Arterial in the City of San Bernardino Circulation Plan.

E Street is a north-south roadway with 1 to 2 lanes in each direction, divided by designated bus lanes (one in each direction) for the OmniTrans sbX Green Line bus service. The posted speed limit is 40 mph and on-street parking is prohibited on both sides. E Street is designated as Major Arterial in the City of San Bernardino Circulation Plan.

FIGURE 6 - City of San Bernardino Circulation Plan



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Existing Transit Service

Transit service to the project area is provided by OmniTrans, which serves the City of San Bernardino and surrounding cities. The OmniTrans bus stops within the vicinity of the Parcel B, Parcel C and Parcel D are located at the intersection of H Street at 5th Street, G Street at 5th Street, G Street at 3rd Street, and G Street at Spruce Street.

Descriptions of the bus routes serving the project area are provided below.

OmniTrans Route 3/4 operates in the City of San Bernardino, traveling along Mt. Vernon, 5th Street, and H Street in the project vicinity. Routes 3/4 are circular loops, Route 3 travels counter-clockwise and Route 4 travels clockwise. Routes 3 and 4 operates through San Bernardino along E Street in the project vicinity. The routes operate on weekdays from approximately 5:41 AM to 10:16 PM with approximately 20-minute headways (the time between bus arrivals) during peak hours and 30 minute headways during off-peak hours, on Saturdays from approximately 6:59 AM to 7:44 PM with approximately 20-minute headways during peak hours and 25 minutes during off-peak hours, and on Sundays from approximately 7:10 AM to 6:38 PM with approximately 22-minute headways during peak hours and 25 minutes during off-peak hours.

OmniTrans Route 10 operates between the City of Fontana, the City of Rialto, and the City of San Bernardino, traveling through San Bernardino along G Street in the project vicinity. Route 10 operates on weekdays from approximately 6:25 AM to 6:43 PM with approximately 1-hour headways (the time between bus arrivals), on Saturdays from approximately 6:20 AM to 6:31 PM with approximately 1-hour headways, and on Sundays from approximately 7:10 AM to 5:31 PM with approximately 1-hour headways.

OmniTrans Route 14 operates in the City of San Bernardino, traveling along 5th Street and E Street in the project vicinity. Route 14 operates on weekdays from approximately 3:27 AM to 10:30 PM with approximately 20-minute headways during peak hours and 30-minute headways during off-peak hours, Saturdays from approximately 6:20 AM to 10:08 PM with 20-minute headways, and Sundays from approximately 6:24 AM to 7:45 PM with 20-minute headways.

Existing Traffic Volumes

Existing morning and evening peak hour intersection volumes and daily roadway volumes collected as part of the previous traffic study for the Gateway Downtown Northwest quadrant (Parcel A) were used for this traffic study. The traffic counts were conducted during March 2020 and in coordination with the City, the traffic counts data was adjusted to reflect 2022 conditions using an annual ambient growth rate of 3% in coordination with City Staff. The traffic counts updated to represent 2022 conditions are presented on **Figure 5**. Traffic data collection worksheets are provided in **Appendix B**.

Existing Operating Conditions

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the morning and evening peak hours using the analysis procedures and assumptions described previously in this report. The results are shown on **Table 1**. Review of this table indicates that all study intersections currently operate at an acceptable Level of Service in both peak hours. Copies of the intersection analysis worksheets are provided in **Appendix C**.

Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted based on the roadway capacities presented previously in this report. The results are shown on **Table 2**. Review of this table indicates that all of the study roadway segments are currently operating at an acceptable Level of Service, with the exception of the following roadway segment:

- 5th Street between Northbound I-215 Ramps and H Street: LOS E

FUTURE CONDITIONS WITHOUT PROJECT

Opening Year 2023 Condition

The project Opening Year is anticipated to be Year 2023. Based on consultation with City staff, an ambient growth rate of 3.0% per year was applied to existing traffic volumes to develop Opening Year 2023 forecasts. The resulting intersection and roadway volumes are shown on **Figure 8**.

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the Opening Year 2023 condition. The results are shown on **Table 3**. Intersection analysis worksheets are provided in **Appendix C**. Review of this table indicates that with the addition of ambient traffic growth, all study intersections would continue to operate at an acceptable Level of Service.

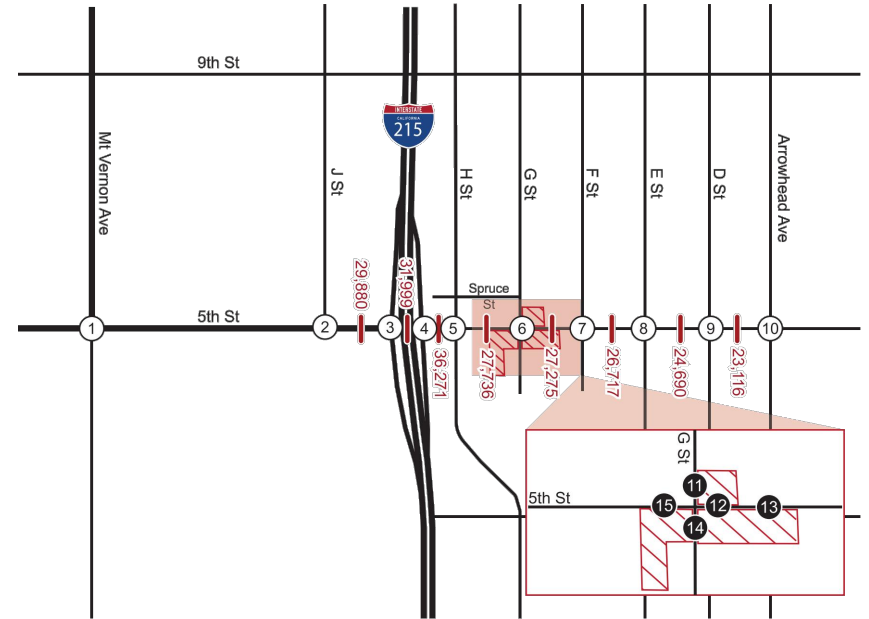
Daily Roadway Operating Conditions

The results of the Opening Year 2023 Base condition roadway analysis are shown on **Table 4**. Review of this table indicates that with the addition of background growth, each of the study roadway segments would continue to operate at an acceptable Level of Service, with the exception of the following roadway segments:

- 5th Street between Southbound I-215 Ramps and Northbound I-215 Ramps – LOS D
- 5th Street between Northbound I-215 Ramps and H Street – LOS E

FIGURE 7 - Existing Traffic Volumes

1	66 / 90 502 / 411 126 / 115 Mt. Vernon Ave	77 / 151 447 / 608 56 / 58 9th St	2	17 / 6 112 / 91 J St	50 / 116 620 / 940 9th St	3	182 / 184 13 / 5 687 / 254 SB I-215 Ramp	488 / 872 362 / 513 9th St	4	199 / 700 602 / 999 9th St
	69 / 106 539 / 565 135 / 108	71 / 136 318 / 600 41 / 88		7 / 12 803 / 864	522 / 612 393 / 343		162 / 219 1047 / 647	248 / 386 2 / 2 582 / 450		
5	164 / 331 109 / 82 32 / 22 H St	22 / 47 586 / 1146 2 / 5 9th St	6	51 / 97 70 / 105 35 / 74 G St	33 / 112 529 / 1105 10 / 10 9th St	7	28 / 67 16 / 54 8 / 17 F St	19 / 23 535 / 1112 5 / 17 9th St	8	12 / 17 539 / 1033 29 / 37 9th St
	107 / 203 1412 / 807 110 / 87	51 / 222 71 / 178 8 / 38		79 / 90 1356 / 727 19 / 21	5 / 13 24 / 108 3 / 15		64 / 62 1312 / 720 6 / 31	2 / 22 22 / 39 8 / 30		73 / 34 1229 / 689 31 / 46
9	23 / 86 93 / 115 23 / 39 D St	31 / 38 554 / 858 28 / 32 9th St	10	32 / 53 185 / 152 24 / 25 Arrowhead Ave	37 / 37 556 / 753 54 / 37 9th St	11	156 / 276 G St	572 / 1227 9th St	12	572 / 1227 9th St
	52 / 68 1032 / 652 76 / 47	23 / 118 49 / 158 15 / 23		64 / 54 799 / 854 179 / 45	42 / 97 86 / 319 29 / 89		136 / 310 9th St	1394 / 816 9th St		
13	572 / 1227 9th St	572 / 1227 9th St	14	89 / 136 G St	32 / 136 9th St	15	585 / 1215 9th St	585 / 1215 9th St	1452 / 867 9th St	
	1394 / 816 9th St	1394 / 816 9th St		1452 / 867 9th St	1452 / 867 9th St		1452 / 867 9th St			



LEGEND

- X / Y AM / PM Peak Hour Turning Volumes
- xx Average Daily Traffic Volumes
- [Red Hatched Box] Project Location
- (X) Unsignalized Project Intersection
- (X) Signalized Project Intersection



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TABLE 1
EXISTING CONDITIONS
PEAK-HOUR INTERSECTION LEVEL OF SERVICE SUMMARY

INTERSECTION		PEAK HOUR	EXISTING		
			DELAY (a)	V/C	LOS (b)
1	Mt. Vernon Ave. & 5th St.	AM	17.6	0.550	B
		PM	21.9	0.750	C
2	5th St. & J St.	AM	4.5	0.430	A
		PM	4.3	0.430	A
3	I-215 SB Ramps & 5th St.	AM	28.4	0.620	C
		PM	24.8	0.560	C
4	I-215 NB Ramps & 5th St.	AM	30.2	0.680	C
		PM	24.3	0.610	C
5	H St. & 5th St.	AM	18.7	0.660	B
		PM	40.2	0.910	D
6	G St. & 5th St.	AM	6.3	0.570	A
		PM	10.0	0.510	A
7	F St. & 5th St.	AM	4.6	0.500	A
		PM	6.4	0.430	A
8	E St. & 5th St.	AM	12.1	0.640	B
		PM	17.0	0.650	B
9	F St. & 5th St.	AM	6.6	0.450	A
		PM	11.4	0.470	B
10	E St. & 5th St.	AM	8.6	0.450	A
		PM	12.5	0.420	B
11	Dwy 1 & G St.	AM	-	-	-
		PM	-	-	-
12	Dwy 2 & 5th St.	AM	-	-	-
		PM	-	-	-
13	Dwy 3 & 5th St.	AM	-	-	-
		PM	-	-	-
14	Dwy 4/5 & G St.	AM	-	-	-
		PM	-	-	-
15	Dwy 6 & 5th St.	AM	-	-	-
		PM	-	-	-

Notes:

Bold values indicate intersections operating at LOS E or F.

ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the Highway Capacity Manual 6th Edition and performed using Synchro 11

(c) Intersections 11-15 are side street stop controlled

**TABLE 2
SUMMARY OF ROADWAY SEGMENT ANALYSIS
EXISTING CONDITIONS**

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY ¹	ADT	V/C RATIO	LOS
5th Street					
J Street to Southbound I-215 Ramps	4-Lane Major	40,000	29,880	0.747	C
Southbound I-215 Ramps to Northbound I-215 Ramps	4-Lane Major	40,000	31,999	0.8	C
Northbound I-215 Ramps to H St	4-Lane Major	40,000	36,271	0.907	E
H St to G St	4-Lane Major	40,000	27,763	0.694	B
G St to F St	4-Lane Major	40,000	27,275	0.682	B
F St to E St	4-Lane Major	40,000	26,717	0.668	B
E St to D St	4-Lane Major	40,000	24,690	0.617	B
D St to Arrowhead Ave	4-Lane Major	40,000	23,116	0.578	A

Notes:

Bold volumes indicate roadway segments operating at LOS D, E, or F

¹ Source: *City of San Bernardino General Plan Update (2005)*

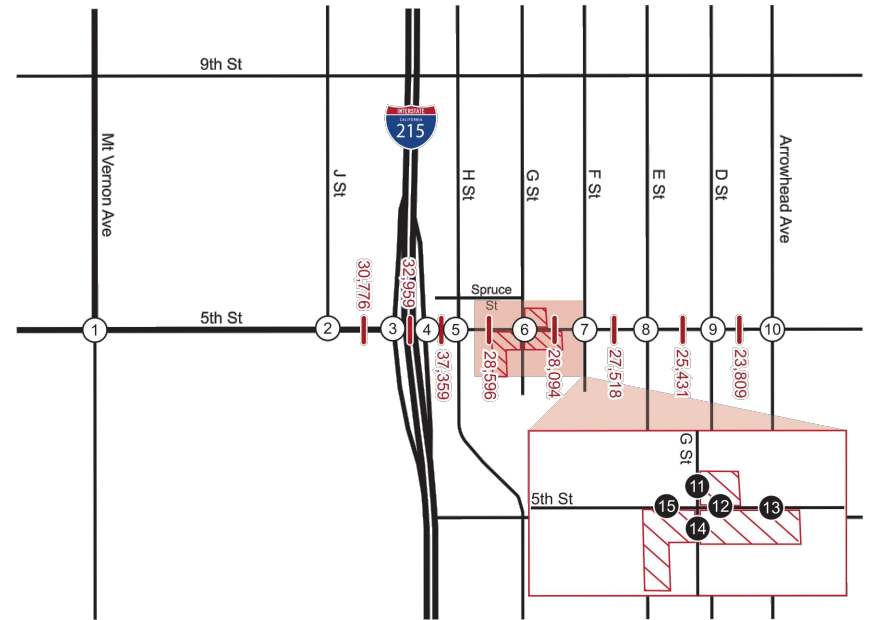
LOS = Level of Service

ADT = Average Daily Traffic

V/C = Volume-to-Capacity

FIGURE 8 - Opening Year 2023 Base Traffic Volumes

1	67 / 93 517 / 423 132 / 118 Mt. Vernon Ave 80 / 155 460 / 626 57 / 60 5th St	2	17 / 77 116 / 94 J St 51 / 119 638 / 967 5th St	3	185 / 189 13 / 5 708 / 261 SB 1/216 Ramp 496 / 898 373 / 529 5th St	4	205 / 720 615 / 1029 5th St 166 / 225 1071 / 667 254 / 398 2 / 2 600 / 463 5th St
5	71 / 109 555 / 582 139 / 111 73 / 140 328 / 618 43 / 81 5th St	6	8 / 12 827 / 888 52 / 99 72 / 108 36 / 76 G St 34 / 116 544 / 1139 10 / 10 5th St	7	28 / 69 16 / 56 9 / 17 FB 20 / 24 551 / 1145 5 / 17 5th St	8	25 / 50 152 / 181 33 / 35 EB 12 / 17 555 / 1064 30 / 38 5th St 110 / 209 1448 / 832 113 / 90 52 / 228 73 / 184 9 / 39 5th St
9	24 / 69 96 / 118 24 / 40 D St 32 / 39 570 / 884 28 / 33 5th St	10	33 / 55 190 / 156 25 / 26 Arrowhead Ave 38 / 38 573 / 776 56 / 38 5th St	11	168 / 289 G St 588 / 1264 5th St	12	1436 / 840 5th St 54 / 70 1063 / 672 79 / 48 24 / 121 50 / 163 15 / 24 86 / 56 823 / 673 185 / 46 44 / 89 89 / 329 30 / 92 140 / 320 5th St
13	588 / 1264 5th St 1436 / 840	14	102 / 140 G St 34 / 140	15	602 / 1251 5th St 1489 / 889		



LEGEND

- X / Y AM / PM Peak Hour Turning Volumes
- xx Average Daily Traffic Volumes
- ▨ Project Location
- ⊗ Unsignalized Project Intersection
- ⊗ Signalized Project Intersection



TABLE 3
OPENING YEAR 2023 CONDITIONS
PEAK-HOUR INTERSECTION LEVEL OF SERVICE SUMMARY

INTERSECTION		PEAK HOUR	OPENING YEAR 2023		
			DELAY (a)	V/C	LOS (b)
1	Mt. Vernon Ave. & 5th St.	AM	17.9	0.570	B
		PM	22.4	0.770	C
2	5th St. & J St.	AM	4.5	0.440	A
		PM	4.4	0.440	A
3	I-215 SB Ramps & 5th St.	AM	28.9	0.640	C
		PM	25.1	0.570	C
4	I-215 NB Ramps & 5th St.	AM	30.7	0.700	C
		PM	26.4	0.620	C
5	H St. & 5th St.	AM	19.3	0.680	B
		PM	44.0	0.940	D
6	G St. & 5th St.	AM	6.6	0.580	A
		PM	10.3	0.530	B
7	F St. & 5th St.	AM	4.7	0.520	A
		PM	6.5	0.440	A
8	E St. & 5th St.	AM	12.6	0.660	B
		PM	17.6	0.680	B
9	F St. & 5th St.	AM	6.8	0.460	A
		PM	11.7	0.480	B
10	E St. & 5th St.	AM	8.8	0.470	A
		PM	12.7	0.440	B
11	Dwy 1 & G St.	AM	-	-	-
		PM	-	-	-
12	Dwy 2 & 5th St.	AM	-	-	-
		PM	-	-	-
13	Dwy 3 & 5th St.	AM	-	-	-
		PM	-	-	-
14	Dwy 4/5 & G St.	AM	-	-	-
		PM	-	-	-
15	Dwy 6 & 5th St.	AM	-	-	-
		PM	-	-	-

Notes:

Project Driveway analysis results are not applicable under 'Without Project' conditions.

Bold values indicate intersections operating at LOS E or F.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the Highway Capacity Manual 6th Edition and performed using Synchro 11

(c) Intersections 11-15 are side street stop controlled

**TABLE 4
SUMMARY OF ROADWAY SEGMENT ANALYSIS
OPENING YEAR 2023**

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY ¹	OPENING YEAR 2023		
			ADT	V/C RATIO	LOS
5th Street					
J Street to Southbound I-215 Ramps	4-Lane Major	40,000	30,776	0.769	C
Southbound I-215 Ramps to Northbound I-215 Ramps	4-Lane Major	40,000	32,959	0.824	D
Northbound I-215 Ramps to H St	4-Lane Major	40,000	37,359	0.934	E
H St to G St	4-Lane Major	40,000	28,596	0.715	C
G St to F St	4-Lane Major	40,000	28,093	0.702	B
F St to E St	4-Lane Major	40,000	27,518	0.688	B
E St to D St	4-Lane Major	40,000	25,431	0.636	B
D St to Arrowhead Ave	4-Lane Major	40,000	23,809	0.595	A
Notes:					
Bold volumes indicate roadway segments operating at LOS D, E, or F					
¹ Source: City of San Bernardino General Plan Update (2005)					
LOS = Level of Service					
ADT = Average Daily Traffic					
V/C = Volume-to-Capacity					

Opening Year Base Plus Other Projects

Other Projects

Information about Other Projects in the area was provided by the City of San Bernardino. Other Projects consist of development projects that have been approved but are not yet constructed/occupied, and projects that are in various stages of the application and approval process but have not yet been approved. The locations of the Other Projects are shown on **Appendix D**.

Other Projects Trip Generation

Trip generation information for the Other Projects was obtained from approved traffic studies, where available; and was developed by Kimley-Horn if approved traffic studies were not available. A summary of Other Projects in the project vicinity and the trip generation associated with each is provided on **Table 5**.

Other Projects Trip Distribution and Assignment

Likewise, trip distribution and assignment for the Other Projects were either obtained from approved traffic studies, where available; or were developed by Kimley-Horn if approved traffic studies were not available. Trip distribution assumptions for Other Projects are provided in **Appendix D**. Traffic volumes associated with the Other Projects were compiled for each of the study intersections and roadway segments and are shown on **Figure 9**. The Other Projects traffic volumes were added to the Opening Year 2023 Base traffic volumes. Project traffic volumes for Opening Year 2023 Base Plus Other Projects are shown on **Figure 10**.

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for Opening Year Base Plus Other Projects conditions, and the results are shown on **Table 6**. Intersection analysis worksheets for this scenario are provided in **Appendix C**. Review of this table indicates that, with the addition of Other Projects traffic, all intersections would continue to operate at an acceptable Level of Service.

Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted for the Opening Year 2023 Plus Other Projects condition. The results are summarized on **Table 7**. Review of this table indicates that with the addition of Other Projects traffic, the following study roadway segments are projected to operate at unacceptable LOS:

- 5th Street between Southbound I-215 Ramps and Northbound I-215 Ramps: LOS D
- 5th Street between Northbound I-215 Ramps and H Street: LOS E

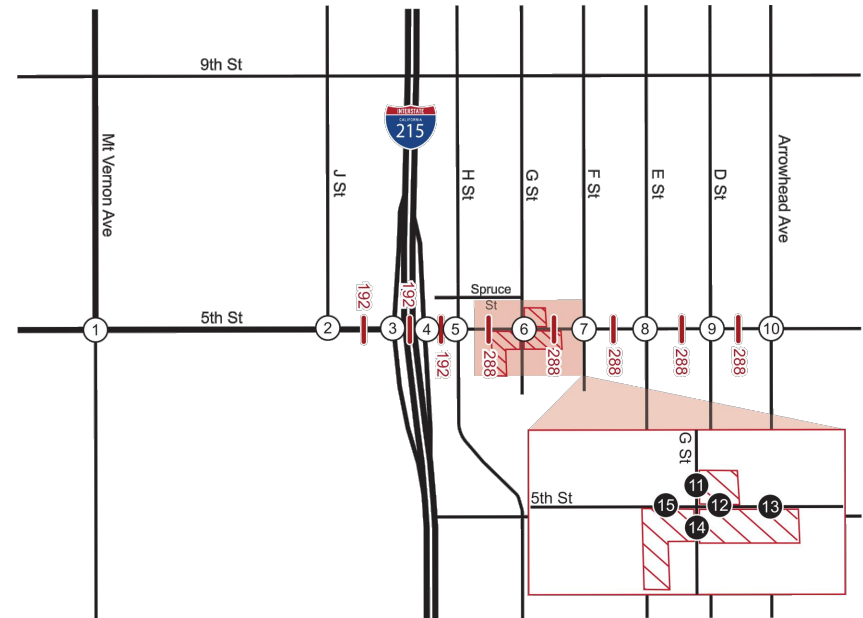
**TABLE 5
TRIP GENERATION SUMMARY FOR CUMULATIVE PROJECTS**

Project #	Project Name	Location	Land Use	Units ¹	Trip Rate ²	Daily Trips	AM Peak-Hour					PM Peak-Hour					
							AM Rate ²	In:Out Ratio ²	In	Out	Total	PM Rate ²	In:Out Ratio ²	In	Out	Total	
Cumulative Projects																	
CP-1	CUP 18-17	South side of E. Mill Street, west of S. Waterman Avenue	Truck and Trailer Storage - Truck	7.97	ac	- / -	1,434	-	- / -	18	33	51	-	- / -	47	22	69
			Subtotal				1,434			18	33	51			47	22	69
CP-2	CUP 18-26	1670 N. Mount Vernon Avenue	Drive-Through Express Car Wash ³	1.67	ksf	95 / ksf	159	0	0.00 / 0.00	0	0	0	14.2	0.50 / 0.50	12	12	24
			Subtotal				159			0	0	0			12	12	24
CP-3	CUP 20-07, PCN 20-01, and VAR 20-03	1991 W. Rialto Avenue	Gasoline Station w/ Convenience Market	8.00	vfp	265.12 / vfp	2,121	16.06	0.50 / 0.50	64	64	128	18.42	0.50 / 0.50	74	73	147
			Subtotal				2,121			64	64	128			74	73	147
CP-4	CUP 20-15	488 W. Mill Street	Express Drive-Through Car Wash ³	2.19	ksf	95 / ksf	208	0	0.00 / 0.00	0	0	0	14.2	0.50 / 0.50	16	15	31
			Subtotal				208			0	0	0			16	15	31
CP-5	DP-D 18-09	S. Arrowhead Avenue, at the intersection of Cluster St	Truck and Trailer Storage	1.93	ac	- - -	348	-	- / -	3	10	13	-	- / -	13	4	17
			Subtotal				348			3	10	13			13	4	17
CP-6	DP-D 19-05	1557 W. Baseline St	Preschool/Daycare Center	7.97	ksf	47.62 / ksf	380	11	0.53 / 0.47	47	41	88	11.12	0.47 / 0.53	42	47	89
			Subtotal				380			47	41	88			42	47	89
CP-7	DP-D 20-09	Intersection of Crooked Creek Lane and S. Eureka Avenue	Single-Family Detached Housing	8.00	du	9.43 / du	75	0.7	0.26 / 0.74	2	4	6	0.94	0.63 / 0.37	5	3	8
			Subtotal				75			2	4	6			5	3	8
CP-8	DP-D 21-05	998 S. Sierra Way	General Light Industrial	8.09	ksf	4.87 / ksf	39	0.74	0.88 / 0.12	5	1	6	0.65	0.14 / 0.86	1	4	5
			Subtotal				39			5	1	6			1	4	5
CP-9	DP-D 21-06	766 W. Mill Street	Truck and Trailer Sales Factory	7.08	ac	- / -	1,273	-	- / -	15	29	44	-	- / -	41	22	63
			Subtotal				1,273			15	29	44			41	22	63
CP-10	DP-D 21-14	682 S. Valley View Avenue	General Light Industrial	65.96	ksf	4.87 / ksf	321	0.74	0.88 / 0.12	43	6	49	0.65	0.14 / 0.86	6	37	43
			Subtotal				321			43	6	49			6	37	43
CP-11	DP-P 18-02	South side of S. Inland Center Drive, approximately 300 feet north of N. Riverwalk Drive	General Light Industrial	101.46	ksf	4.87 / ksf	494	0.74	0.88 / 0.12	66	9	75	0.65	0.14 / 0.86	9	57	66
			Subtotal				494			66	9	75			9	57	66
CP-12	DP-P 20-07	East side of S. Sierra Way, approximately 200 feet south of E. Rialto Avenue	General Office	30.81	ksf	10.84 / ksf	334	1.52	0.88 / 0.12	41	6	47	1.44	0.17 / 0.83	7	37	44
			Subtotal				334			41	6	47			7	37	44
CP-13	GPA 16-07, DCA (ZMA) 16-08, CUP 16-17, and PCN 17-01	841 S. Inland Center Drive	Gasoline Station w/ Convenience Market	6.00	vfp	265.12 / vfp	1,591	16.06	0.50 / 0.50	48	48	96	18.42	0.50 / 0.50	56	55	111
			Drive-Through Express Car Wash ³	1.04	ksf	95 / ksf	99	0	0.00 / 0.00	0	0	0	14.2	0.50 / 0.50	8	7	15
			Subtotal				1,690			48	48	96			64	62	126
CP-14 ⁴	SUB 20-04 (TPM 20216), CUP 20-12, AND PCN 20-023	North side of West 5th Street between North G Street and North H Street	Subtotal	-	-	- - -	3,717			122	118	240			123	115	238
CP-15	SUB 20-07 (TPM 20305) and DP-D 20-05	1435 W. Rialto Avenue	Truck and Trailer Parking Facility	12.56	ac	- - -	2,258	-	- / -	30	46	76	-	- / -	73	39	112
			Subtotal				2,258			30	46	76			73	39	112
CP-16	SUB 20-08 (TPM 20320) and DP-D 20-15	Northeast corner of E. Central Avenue and S. Foisy Street	General Light Industrial	104.85	ksf	4.87 / ksf	511	0.74	0.88 / 0.12	69	9	78	0.65	0.14 / 0.86	10	58	68
			Subtotal				511			69	9	78			10	58	68
CP-17	SUB 21-01 (TPM 20334) and DP-D 20-01	157 N. Rancho Avenue	Truck and Trailer Parking Facility	14.48	ac	- - -	2,602	-	- / -	33	56	89	-	- / -	86	45	131
			Subtotal				2,602			33	56	89			86	45	131
NET CUMULATIVE PROJECTS TRIP GENERATION =							17,964			606	480	1,086			629	652	1,281

Note:
1. DU = dwelling unit; ksf = one thousand square feet
2. Trip rates references from ITE Trip Generation, 11th Edition
3. Daily and AM trips rates for Automated Car Wash are not available. Assuming PM trip rate is 15% of Daily.
4. Trips references from Gateway Downtown Project Report (September, 2020)

FIGURE 9 - Other Projects Traffic Volumes

1	5 / 7 10 / 10 MT Vernon Ave 5th St	8 / 6	5 / 7 6 / 6	2	J St 19 / 21 5th St	22 / 18	5 / 7 6 / 6	3	12 / 12 SB I-215 Ramp 5th St	19 / 21 12 / 11 5th St	22 / 18	4	NB I-215 Ramp 5th St	12 / 11 30 / 32 5th St
5	23 / 22 6 / 6 H St 5th St	25 / 25 22 / 18	6 / 6	6	4 / 3 37 / 36 G St 5th St	22 / 17	4 / 3	7	4 / 4 F St 5th St	18 / 18 40 / 43 5th St	4 / 4	8	E St 5th St	0 / 1 40 / 43 5th St
9	5 / 5 D St 5th St	5 / 4 32 / 26 6 / 6	6 / 6	10	5 / 5 1 / 0 Arrowhead Ave 5th St	5 / 4 16 / 16 11 / 6	7 / 11 0 / 1	11	13 / 13 6 / 6 G St Proj Dwy 1	13 / 13 42 / 41	23 / 23 6 / 6	12	Proj Dwy 2 5th St	57 / 57
13	57 / 57 5th St	55 / 53	4 / 4	14	4 / 3 G St Proj Dwy 4	4 / 4	4 / 4	15	41 / 38 34 / 30 Dwy 5th St	56 / 54 6 / 6	35 / 33 6 / 6			



LEGEND

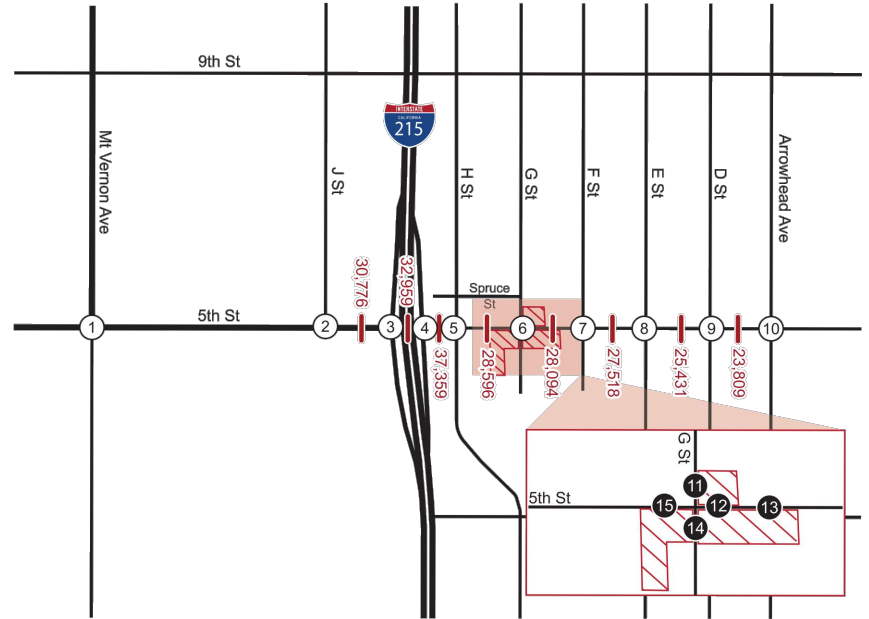
- X / Y AM / PM Peak Hour Turning Volumes
- xx Average Daily Traffic Volumes
- [Red Hatched Box] Project Location
- (X) Unsignalized Project Intersection
- (X) Signalized Project Intersection



NOT TO SCALE

FIGURE 10 - Opening Year 2023 Base Plus Other Projects Traffic Volumes

1	67 / 83 522 / 430 142 / 126 ML Vernon Ave	88 / 165 467 / 634 63 / 66 5th St	17 / 77 116 / 94 J St	51 / 119 657 / 988 5th St	185 / 189 13 / 15 720 / 273 SB I-215 Ramp	515 / 919 385 / 540 5th St	217 / 731 645 / 1061 5th St
	71 / 109 563 / 588 139 / 111	73 / 140 333 / 625 49 / 87	8 / 12 849 / 906		551 / 649 397 / 353		166 / 225 1106 / 698
5	191 / 383 119 / 90 33 / 23 H St	23 / 48 619 / 1201 2 / 5 5th St	52 / 99 76 / 111 73 / 112 G St	52 / 134 594 / 1182 10 / 10 5th St	32 / 73 16 / 56 9 / 17 F St	20 / 24 602 / 1199 5 / 17 5th St	12 / 18 595 / 1107 30 / 36 5th St
	135 / 234 1470 / 850 113 / 90	52 / 228 79 / 190 9 / 39	81 / 93 1419 / 766 20 / 22	5 / 13 29 / 115 3 / 15	70 / 66 1404 / 788 11 / 35	6 / 27 23 / 40 9 / 31	80 / 39 1306 / 745 38 / 53
9	29 / 94 96 / 118 24 / 40 D St	32 / 39 599 / 917 26 / 33 5th St	38 / 60 191 / 156 25 / 26 Arrowhead Ave	38 / 38 590 / 793 56 / 38 5th St	13 / 13 174 / 305 Dwy	Proj Dwy 1	645 / 1321 5th St
	59 / 74 1095 / 698 85 / 54	30 / 127 50 / 163 15 / 24	71 / 60 839 / 689 196 / 52	51 / 110 89 / 330 30 / 92	13 / 13 42 / 41		1491 / 893
13		645 / 1321 5th St	106 / 143 G St	Proj Dwy 4	41 / 38 34 / 30 Dwy	56 / 54 608 / 1257 5th St	
				38 / 144	35 / 33 1495 / 895		



LEGEND

- X / Y AM / PM Peak Hour Turning Volumes
- xx Average Daily Traffic Volumes
- [Red Hatched Box] Project Location
- (X) Unsignalized Project Intersection
- (X) Signalized Project Intersection



TABLE 6
OPENING YEAR 2023 PLUS OTHER PROJECTS CONDITIONS
PEAK-HOUR INTERSECTION LEVEL OF SERVICE SUMMARY

INTERSECTION		PEAK HOUR	OPENING YEAR 2023 PLUS OTHER PROJECTS		
			DELAY (a)	V/C	LOS (b)
1	Mt. Vernon Ave. & 5th St.	AM	18.6	0.590	B
		PM	23.4	0.810	C
2	5th St. & J St.	AM	4.5	0.450	A
		PM	4.4	0.450	A
3	I-215 SB Ramps & 5th St.	AM	29.1	0.650	C
		PM	25.5	0.580	C
4	I-215 NB Ramps & 5th St.	AM	30.9	0.720	C
		PM	27.4	0.630	C
5	H St. & 5th St.	AM	20.8	0.690	C
		PM	52.3	0.970	D
6	G St. & 5th St.	AM	7.7	0.610	A
		PM	11.8	0.570	B
7	F St. & 5th St.	AM	4.9	0.540	A
		PM	6.9	0.460	A
8	E St. & 5th St.	AM	13.5	0.680	B
		PM	17.9	0.700	B
9	F St. & 5th St.	AM	7.0	0.480	A
		PM	12.3	0.500	B
10	E St. & 5th St.	AM	9.3	0.480	A
		PM	13.0	0.440	B
11	Dwy 1 & G St.	AM	9.7	0.070	A
		PM	11.0	0.110	B
12	Dwy 2 & 5th St.	AM	-	-	-
		PM	-	-	-
13	Dwy 3 & 5th St.	AM	-	-	-
		PM	-	-	-
14	Dwy 4/5 & G St.	AM	-	-	-
		PM	-	-	-
15	Dwy 6 & 5th St.	AM	18.5	0.480	C
		PM	30.3	0.540	D

Notes:

Project Driveway analysis results are not applicable under 'Without Project' conditions.

Bold values indicate intersections operating at LOS E or F.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the Highway Capacity Manual 6th Edition and performed using Synchro 11

(c) Intersections 11-15 are side street stop controlled

**TABLE 7
SUMMARY OF ROADWAY SEGMENT ANALYSIS
OPENING YEAR 2023 PLUS OTHER PROJECTS**

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY ¹	OPENING YEAR 2023 PLUS OTHER PROJECTS		
			ADT	V/C RATIO	LOS
5th Street					
J Street to Southbound I-215 Ramps	4-Lane Major	40,000	30,776	0.769	C
Southbound I-215 Ramps to Northbound I-215 Ramp	4-Lane Major	40,000	32,959	0.824	D
Northbound I-215 Ramps to H St	4-Lane Major	40,000	37,359	0.934	E
H St to G St	4-Lane Major	40,000	28,596	0.715	C
G St to F St	4-Lane Major	40,000	28,093	0.702	B
F St to E St	4-Lane Major	40,000	27,518	0.688	B
E St to D St	4-Lane Major	40,000	25,431	0.636	B
D St to Arrowhead Ave	4-Lane Major	40,000	23,809	0.595	A
Notes:					
Bold volumes indicate roadway segments operating at LOS D, E, or F					
¹ Source: City of San Bernardino General Plan Update (2005)					
LOS = Level of Service					
ADT = Average Daily Traffic					
V/C = Volume-to-Capacity					

PROJECT TRAFFIC

Project Trip Generation

Trip generation estimates for the Gateway Downtown Parcel B, C and D project site are based on the following daily and peak hour trip generation rates obtained from the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition):

- ITE Land Use 934: Fast-Food Restaurant with Drive-Thru
- ITE Land Use 948: Automated Car Wash

The trip rates and the estimated project trip generation are shown on **Table 8**. Pass-by percentages for each land use were applied to the project trip generation in accordance with the ITE Trip Generation Handbook, 3rd Edition. At the proposed project driveways, the project is estimated to generate 2,514 trips on a daily basis, with 208 trips in the morning peak hour and 205 trips in the evening peak hour. The project is estimated to generate a net total of 1,319 new daily trips, with 104 new AM peak hour trips and 121 new PM peak hour trips.

Note: Parcel B land use is based on trips as depicted in the ITE (Land Use No 934) Trip Generation Manual, 11th Edition for Fast Food Restaurant with Drive-Thru. The trips determined are based on the traffic study along with the rest of the parcels (Parcel C- Quick Quack Car Wash and Parcel D - Sonic) to determine the impacts on 5th street between G St and H St. Once an operator/occupant for Parcel B is found, the developer will submit a separate application to the planning department for approval and a separate traffic scope may need to be submitted to Public Works Traffic Engineering Division for approval.

Trip Distribution and Assignment

Project trip distribution assumptions for the project site were developed taking into account the proposed site use. Trip distribution assumptions for the proposed project are shown on **Figure 11**.

Trip distribution percentages at each study intersection were applied to the project trip generation for each parcel to determine the project trips through each intersection. The resulting project-related peak hour trips are shown on **Figure 12**.

Table 8
TRIP GENERATION - Gateway Downtown Planning Area B, C, and D

ITE Land Use	ITE Land Use Code	Project Size	Daily Rate /Trips	AM Peak-Hour			PM Peak-Hour		
				Total Trips	IN	OUT	Total Trips	IN	OUT
Fast-Food Restaurant w/ D.T.	934	- KSF	467.48	44.61	51%	49%	33.03	52%	48%
Automated Car Wash	948	- KSF	95.00	0.00	0%	0%	14.20	50%	50%
Total Trips									
Fast-Food Restaurant w/ D.T. (Parcel B)	934	2.325 KSF	1,087	104	53	51	77	40	37
Fast-Food Restaurant w/ D.T. (Parcel D)	934	2.321 KSF	1,085	104	53	51	77	40	37
Automated Car Wash (Parcel C)	948	3.596 KSF	342	0	0	0	51	26	25
Gross Trips Generated			2,514	208	106	102	205	106	99
Pass-By Trips^{3,4}									
Fast-Food Restaurant w/ D.T. (Parcel B)			(598)	(52)	(27)	(25)	(42)	(22)	(20)
Fast-Food Restaurant w/ D.T. (Parcel D) (Pass-By Trips Daily-55%, AM-50%, PM-55%)			(597)	(52)	(27)	(25)	(42)	(22)	(20)
Automated Car Wash (Parcel C)			0	0	0	0	0	0	0
Pass-By Reduction			(1,195)	(104)	(54)	(50)	(84)	(44)	(40)
Net Project Trips			1,319	104	52	52	121	62	59

Notes:

1. Trip rates references from ITE Trip Generation, 11th Edition
2. Daily and AM trip rates for Automated Car Wash are not available. Assuming PM trip rate is 15% of Daily.
3. Pass-by trip reductions based on values contained in the ITE Trip Generation, 11th Edition
4. Daily pass-by trips only represent PM peak hour pass-by trips because no daily pass-by trips are provided in the ITE Trip Generation, 11th Edition.

FIGURE 11 - Project Trip Distribution

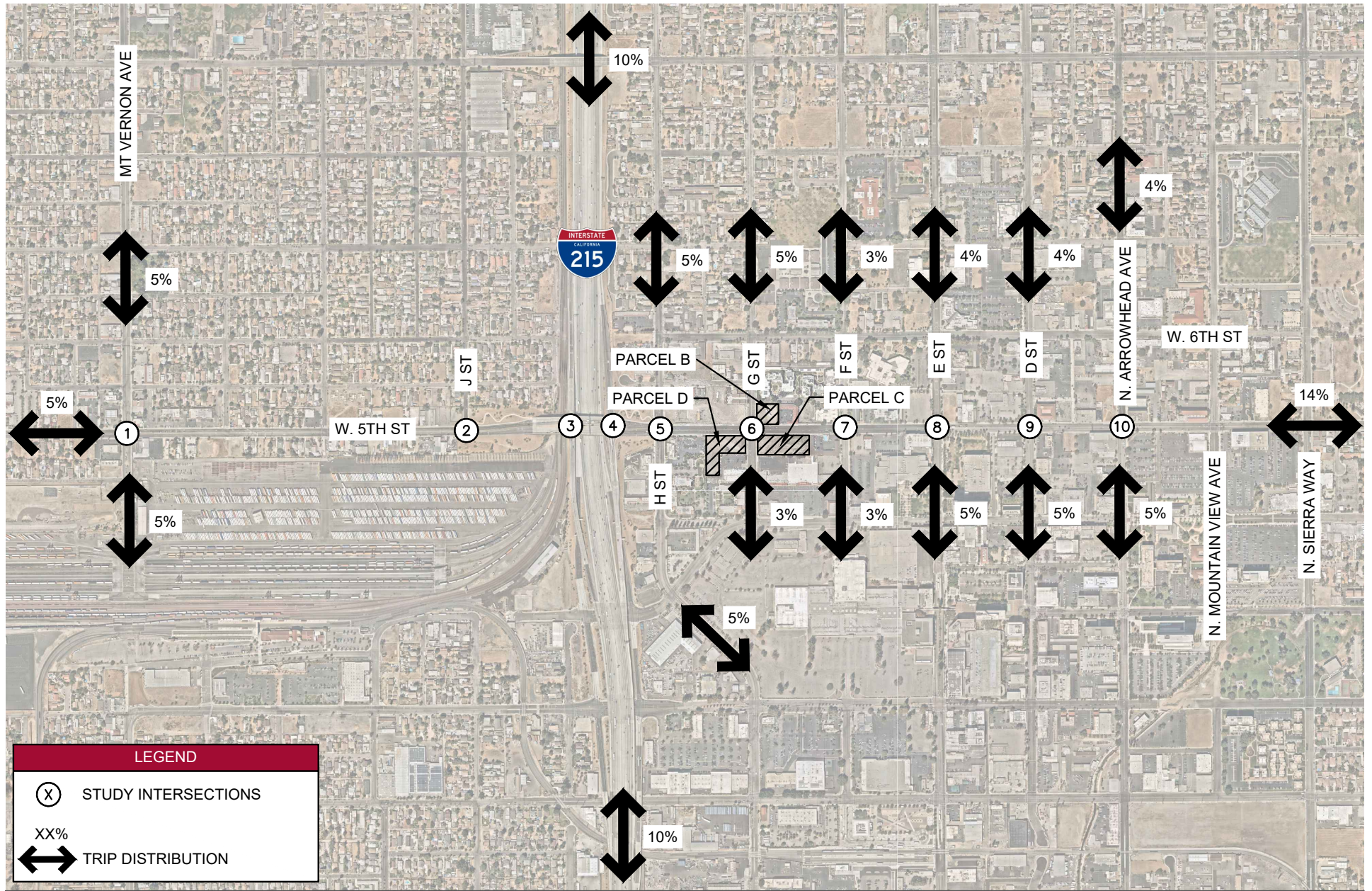
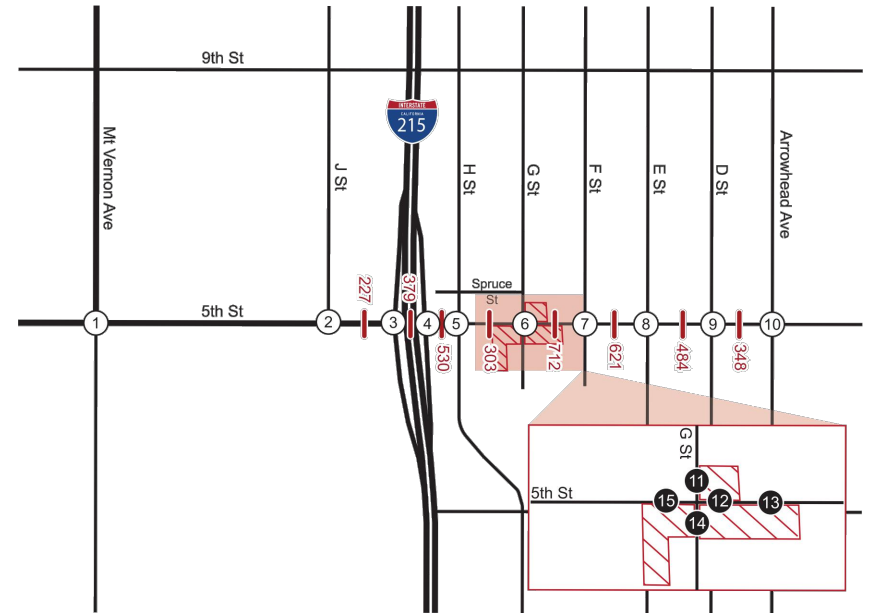


FIGURE 12 - Project Related Traffic Volumes

1	2/3 Mt. Vernon Ave 5th St	2	6/7 5th St	3	6/6 SB I-215 Ramp 5th St	4	6/7 12/13 NB I-215 Ramp 5th St
5	2/3 H St 5th St	6	1/1 2/2 G St 5th St	7	2/2 F St 5th St	8	2/3 E St 5th St
9	2/3 D St 5th St	10	2/3 Arrowhead Ave 5th St	11	-5/-3 9/8 G St Proj Dwy 1 5th St	12	38/28 Proj Dwy 2 5th St
13	13/13 0/13 Proj Dwy 3 5th St	14	12/10 3/2 G St Proj Dwy 5 5th St	15	Dwy 20/24 12/10 5th St		
	0/6 0/6		7/7 -3/-2 Proj Dwy 4 5th St		0/10 22/17 Proj Dwy 6 5th St		



LEGEND

- X / Y AM / PM Peak Hour Turning Volumes
- xx Average Daily Traffic Volumes
- [Hatched Box] Project Location
- (X) Unsignalized Project Intersection
- (X) Signalized Project Intersection



NOT TO SCALE

FUTURE CONDITIONS WITH PROJECT

Opening Year 2023 Plus Other Projects Plus Project

Project-related traffic for the Gateway Downtown Parcel B, C and D project site was added to the Opening Year 2023 Plus Other Projects traffic volumes, and the resulting “Plus Project” traffic volumes are shown on **Figure 13**.

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the Opening Year 2023 Plus Other Projects Plus Project condition. The results are shown on **Table 9**. Copies of the intersection analysis worksheets are provided in **Appendix C**. Review of **Table 9** indicates that, with the addition of Project traffic, all project intersections are projected to operate at acceptable LOS, except for the Driveway 6 & 5th Street, which will operate at unacceptable LOS E for the southbound left turns (exiting traffic from Gateway Downtown Parcel A) with delays of 45.1 seconds.

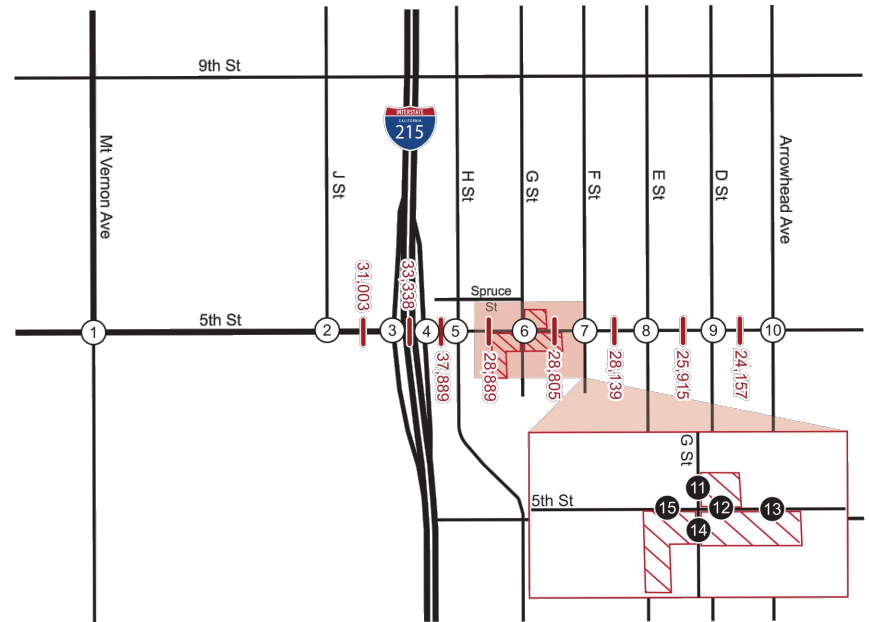
Daily Roadway Operating Conditions

The results of the Opening Year 2023 Plus Other Projects Plus Project condition roadway Level of Service analysis are summarized on **Table 10**. Review of this table indicates that with the addition of Project traffic, the following study roadway segments are projected to continue to operate at unacceptable LOS:

- 5th Street between Southbound I-215 Ramps and Northbound I-215 Ramps: LOS D
- 5th Street between Northbound I-215 Ramps and H Street: LOS E

FIGURE 13 - Opening Year Base Plus Other Project Plus Project Traffic Volume

1	67 / 93 522 / 430 144 / 129 Mt. Vernon Ave 5th St	90 / 168 469 / 635 65 / 69 5th St	2	17 / 7 116 / 94 J St	51 / 119 663 / 995 5th St	3	185 / 189 13 / 5 726 / 279 SB 1215 Ramp	521 / 926 391 / 546 5th St	4	NB 1215 Ramp 223 / 738 657 / 1074 5th St
5	71 / 109 565 / 591 139 / 111 73 / 140 333 / 625 51 / 100	8 / 12 855 / 915 5th St	6	52 / 99 77 / 112 75 / 114 G St	60 / 142 599 / 1198 22 / 19 5th St	7	34 / 75 16 / 56 9 / 17 F St	20 / 24 620 / 1225 5 / 17 5th St	8	254 / 388 2 / 2 618 / 481 E St
9	191 / 363 119 / 90 35 / 26 H St	24 / 50 637 / 1221 3 / 7 5th St	10	40 / 63 191 / 156 25 / 26 Arrowhead Ave	38 / 38 598 / 803 56 / 38 5th St	11	13 / 13 169 / 302 9 / 8 G St	5 / 2 8 / 2 Proj Dwy 1	12	17 / 89 105 / 315 25 / 30 11 37 / 889
13	135 / 234 1488 / 871 113 / 90 52 / 228 79 / 190 11 / 42	93 / 101 1426 / 782 21 / 23 20 / 30 31 / 117 8 / 23 5th St	14	72 / 62 845 / 696 197 / 53 53 / 113 89 / 330 30 / 92 G St	0 / 10 0 / 4 Proj Dwy 4	15	41 / 38 34 / 30 Dwy	56 / 54 628 / 1281 13 / 28 5th St		
	31 / 97 96 / 118 24 / 40 D St	32 / 39 610 / 932 28 / 33 5th St								
	80 / 76 1103 / 708 86 / 55 32 / 130 50 / 163 15 / 24									
	1504 / 906 0 / 13 Proj Dwy 3	666 / 1338 0 / 12 5th St								



LEGEND

- X / Y: AM / PM Peak Hour Turning Volumes
- xx: Average Daily Traffic Volumes
- [Red Hatched Box]: Project Location
- (X): Unsignalized Project Intersection
- (X): Signalized Project Intersection



NOT TO SCALE

TABLE 9
OPENING YEAR 2023 PLUS OTHER PROJECTS PLUS PROJECT CONDITIONS
PEAK-HOUR INTERSECTION LEVEL OF SERVICE SUMMARY

INTERSECTION	PEAK HOUR	OPENING YEAR 2023 PLUS OTHER PROJECTS			OPENING YEAR 2023 PLUS OTHER PROJECTS PLUS PROJECT			Δ (c)	IMPACT IDENTIFIED?
		DELAY (a)	V/C	LOS (b)	DELAY (a)	V/C	LOS (b)		
1 Mt. Vernon Ave. & 5th St.	AM	18.6	0.590	B	18.7	0.590	B	0.000	NO
	PM	23.4	0.810	C	23.6	0.820	C	0.010	NO
2 5th St. & J St.	AM	4.5	0.450	A	4.5	0.450	A	0.000	NO
	PM	4.4	0.450	A	4.4	0.450	A	0.000	NO
3 I-215 SB Ramps & 5th St.	AM	29.1	0.650	C	29.3	0.660	C	0.010	NO
	PM	25.5	0.580	C	25.6	0.580	C	0.000	NO
4 I-215 NB Ramps & 5th St.	AM	30.9	0.720	C	31.1	0.730	C	0.010	NO
	PM	27.4	0.630	C	28.1	0.630	C	0.000	NO
5 H St. & 5th St.	AM	20.8	0.690	C	21.2	0.700	C	0.010	NO
	PM	52.3	0.970	D	54.3	0.980	D	0.010	NO
6 G St. & 5th St.	AM	7.7	0.610	A	8.0	0.620	A	0.010	NO
	PM	11.8	0.570	B	12.5	0.590	B	0.020	NO
7 F St. & 5th St.	AM	4.9	0.540	A	5.0	0.550	A	0.010	NO
	PM	6.9	0.460	A	7.0	0.470	A	0.010	NO
8 E St. & 5th St.	AM	13.5	0.680	B	13.8	0.690	B	0.010	NO
	PM	17.9	0.700	B	18.1	0.710	B	0.010	NO
9 F St. & 5th St.	AM	7.0	0.480	A	7.1	0.480	A	0.000	NO
	PM	12.3	0.500	B	12.5	0.510	B	0.010	NO
10 E St. & 5th St.	AM	9.3	0.480	A	9.4	0.490	A	0.010	NO
	PM	13.0	0.440	B	13.0	0.450	B	0.010	NO
11 Dwy 1 & G St.	AM	9.7	0.070	A	10.6	0.070	B	0.000	NO
	PM	11.0	0.110	B	12.3	0.110	B	0.000	NO
12 Dwy 2 & 5th St.	AM	-	-	-	11.1	0.640	B	-	NO
	PM	-	-	-	15.8	0.570	C	-	NO
13 Dwy 3 & 5th St.	AM	-	-	-	0.0	0.640	A	-	NO
	PM	-	-	-	18.1	0.430	C	-	NO
14 Dwy 4/5 & G St.	AM	-	-	-	9.7	0.050	A	-	NO
	PM	-	-	-	10.0	0.060	B	-	NO
15 Dwy 6 & 5th St.	AM	18.5	0.480	C	23.8	0.630	C	-	NO
	PM	30.3	0.540	D	45.1	0.550	E	-	YES

Notes:

Bold values indicate intersections operating at LOS E or F.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the Highway Capacity Manual 6th Edition and performed using Synchro 11

(c) Change in V/C due to addition of project traffic

(e) Intersections 11-15 are side street stop controlled

**TABLE 10
SUMMARY OF ROADWAY SEGMENT ANALYSIS
OPENING YEAR 2023 PLUS OTHER PROJECTS PLUS PROJECT**

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY ¹	OPENING YEAR 2023 PLUS OTHER PROJECTS			LOS E CAPACITY ¹	OPENING YEAR 2023 PLUS OTHER PROJECTS PLUS PROJECT			D in ADT
			ADT	V/C RATIO	LOS		ADT	V/C RATIO	LOS	
5th Street										
J Street to Southbound I-215 Ramps	4-Lane Major	40,000	30,776	0.769	C	40,000	30,974	0.774	C	198
Southbound I-215 Ramps to Northbound I-215 Ramps	4-Lane Major	40,000	32,959	0.824	D	40,000	33,289	0.832	D	330
Northbound I-215 Ramps to H St	4-Lane Major	40,000	37,359	0.934	E	40,000	37,821	0.946	E	462
H St to G St	4-Lane Major	40,000	28,596	0.715	C	40,000	28,860	0.722	C	264
G St to F St	4-Lane Major	40,000	28,093	0.702	B	40,000	28,713	0.718	C	620
F St to E St	4-Lane Major	40,000	27,518	0.688	B	40,000	28,059	0.701	B	541
E St to D St	4-Lane Major	40,000	25,431	0.636	B	40,000	25,853	0.646	B	422
D St to Arrowhead Ave	4-Lane Major	40,000	23,809	0.595	A	40,000	24,112	0.603	A	303

Notes:
Bold volumes indicate roadway segments operating at LOS D, E, or F.
¹ Source: City of San Bernardino General Plan Update (2005)
 LOS = Level of Service
 ADT = Average Daily Traffic
 V/C = Volume-to-Capacity

FUTURE BUILD-OUT CONDITIONS

Horizon Year 2040 Cumulative Base Conditions

To derive the Horizon Year 2040 Cumulative Base baseline intersection turning movement forecasts, the San Bernardino Transportation Analysis Model (SBTAM) Base Year 2012 and Build-out Year 2040 future traffic projections were used. The raw volumes obtained from the model output were post-processed by determining the annual growth between the base model year and the future model year and applying the growth increment to existing count volumes. This was accomplished using the B-Turns methodology, developed by the Federal Highway Administration (FHWA) and published in National Highway Research Program (NCHRP) Report 255: *Highway Traffic Data for Urbanized Area Project Planning and Design*. As a conservative approach, if a turning movement volume produced by this process was less than the Opening Year 2023 Plus Other Cumulative forecast volume for that movement, manual adjustments were made to assure that all forecast horizon year volumes would not be less than the Opening Year 2023 Plus Other Projects forecast volumes.

It should be noted that as part of the previously approved traffic study for the Gateway Downtown Parcel A project, the above methodology was adopted to arrive at Horizon Year 2040 Cumulative Base Conditions. Additionally, Parcel A trips were added to arrive at Horizon Year 2040 Cumulative Plus Project Conditions. For this traffic study report, the Horizon Year 2040 Cumulative Plus Project Conditions traffic volumes from the previously approved traffic study were used as Horizon Year 2040 Cumulative Base Conditions.

The SBTAM Model plots and B-Turns worksheets are provided in **Appendix E**. The resulting traffic volumes for Horizon Year 2040 Cumulative Base baseline conditions are shown on **Figure 14**.

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the Future Build-Out 2040 Cumulative Base condition, and the results are shown on **Table 11**. Copies of intersection analysis worksheets are provided in **Appendix C**. Review of this table indicates that, under Horizon Year 2040 Cumulative Base conditions, all study intersections would operate at an acceptable Level of Service.

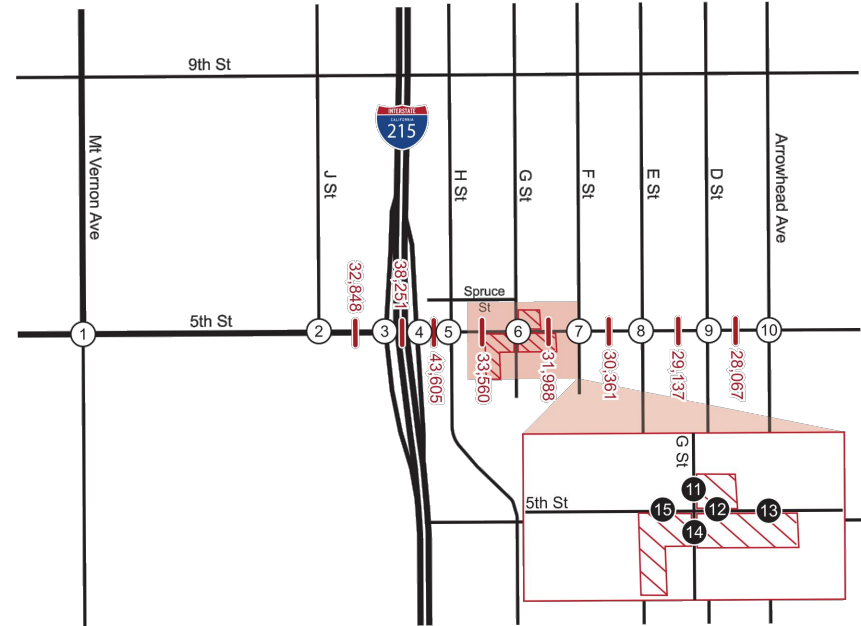
Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted for the Future Build-Out 2040 Cumulative Base condition, and the results are summarized on **Table 12**. Review of this table indicates that all study roadway segments would operate at an acceptable Level of Service, with exception of the following roadway segments:

- 5th Street between J Street and Southbound I-215 Ramps – LOS D
- 5th Street between Southbound I-215 Ramps and Northbound I-215 Ramps – LOS E
- 5th Street between Northbound I-215 Ramps and H Street – LOS F
- 5th Street between H Street and G Street – LOS D

FIGURE 14 - Future Build-Out 2040 Cumulative Base Traffic Volumes

<p>1</p> <p>69 / 93 524 / 623 139 / 124 Mt. Vernon Ave</p> <p>91 / 168 490 / 632 65 / 82 5th St</p>	<p>2</p> <p>21 / 77 0 / 0 132 / 94 J St</p> <p>51 / 134 674 / 987 0 / 0 5th St</p>	<p>3</p> <p>185 / 189 13 / 6 764 / 329 SB 1/216 Ramp</p> <p>531 / 967 387 / 614 0 / 0 5th St</p>	<p>4</p> <p>0 / 0 0 / 0 0 / 0 NB 1/216 Ramp</p> <p>219 / 737 646 / 1063 0 / 0 5th St</p>
<p>5</p> <p>71 / 109 561 / 588 139 / 124</p> <p>73 / 140 328 / 660 49 / 109 5th St</p>	<p>6</p> <p>8 / 14 845 / 906 0 / 0 5th St</p> <p>66 / 99 132 / 123 73 / 112 G St</p> <p>52 / 134 586 / 1234 12 / 11 5th St</p>	<p>7</p> <p>0 / 0 579 / 668 397 / 353</p> <p>70 / 191 139 / 113 34 / 56 F St</p> <p>70 / 104 604 / 1207 14 / 17 5th St</p>	<p>8</p> <p>166 / 392 1182 / 939 0 / 0</p> <p>30 / 95 156 / 192 34 / 39 E St</p> <p>16 / 19 597 / 1115 42 / 46 5th St</p>
<p>9</p> <p>135 / 234 1601 / 965 144 / 100</p> <p>64 / 247 79 / 200 9 / 52 5th St</p>	<p>10</p> <p>91 / 93 1441 / 872 74 / 46 Arrowhead Ave</p> <p>16 / 47 33 / 172 3 / 33 5th St</p>	<p>11</p> <p>181 / 246 1412 / 791 17 / 35</p> <p>13 / 13 238 / 301 0 / 0 Dwy</p> <p>13 / 13 0 / 0 42 / 41 5th St</p>	<p>12</p> <p>80 / 39 1314 / 754 38 / 53</p> <p>15 / 86 613 / 901 15 / 51 5th St</p>
<p>13</p> <p>29 / 94 116 / 118 45 / 40 D St</p> <p>32 / 56 601 / 972 45 / 33 5th St</p>	<p>14</p> <p>71 / 68 953 / 714 191 / 55 G St</p> <p>52 / 110 90 / 402 32 / 99 5th St</p>	<p>15</p> <p>41 / 38 0 / 0 34 / 30 Dwy</p> <p>56 / 54 640 / 1359 0 / 0 5th St</p>	<p>16</p> <p>0 / 0 0 / 0 0 / 0 5th St</p> <p>650 / 1379 0 / 0 0 / 0 5th St</p>
<p>17</p> <p>59 / 77 1160 / 749 85 / 54</p> <p>30 / 127 50 / 165 28 / 25 5th St</p>	<p>18</p> <p>0 / 0 0 / 0 0 / 0 5th St</p> <p>0 / 0 0 / 0 0 / 0 5th St</p>	<p>19</p> <p>23 / 23 160 / 393 0 / 0 5th St</p> <p>35 / 33 1608 / 1003 0 / 0 5th St</p>	<p>20</p> <p>1517 / 1017 0 / 0 0 / 0 5th St</p> <p>0 / 0 0 / 0 0 / 0 5th St</p>



LEGEND

- X / Y AM / PM Peak Hour Turning Volumes
- xx Average Daily Traffic Volumes
- [Hatched Box] Project Location
- (X) Unsignalized Project Intersection
- (X) Signalized Project Intersection



TABLE 11
HORIZON YEAR 2040 CUMULATIVE BASE CONDITIONS
PEAK-HOUR INTERSECTION LEVEL OF SERVICE SUMMARY

INTERSECTION		PEAK HOUR	HORIZON YEAR 2040 BASE		
			DELAY (a)	V/C	LOS (b)
1	Mt. Vernon Ave. & 5th St.	AM	17.3	0.540	B
		PM	24.1	0.790	C
2	5th St. & J St.	AM	5.4	0.400	A
		PM	4.5	0.450	A
3	I-215 SB Ramps & 5th St.	AM	24.5	0.690	C
		PM	20.9	0.600	C
4	I-215 NB Ramps & 5th St.	AM	26.1	0.770	C
		PM	38.9	0.700	D
5	H St. & 5th St.	AM	19.1	0.670	B
		PM	38.8	0.920	D
6	G St. & 5th St.	AM	8.5	0.610	A
		PM	14.7	0.600	B
7	F St. & 5th St.	AM	7.7	0.560	A
		PM	17.4	1.130	B
8	E St. & 5th St.	AM	12.5	0.650	B
		PM	19.0	0.670	B
9	F St. & 5th St.	AM	7.4	0.470	A
		PM	12.3	0.490	B
10	E St. & 5th St.	AM	9.3	0.480	A
		PM	14.3	0.470	B
11	Dwy 1 & G St.	AM	9.9	0.07	A
		PM	10.7	0.120	B
12	Dwy 2 & 5th St.	AM	-	-	-
		PM	-	-	-
13	Dwy 3 & 5th St.	AM	-	-	-
		PM	-	-	-
14	Dwy 4/5 & G St.	AM	-	-	-
		PM	-	-	-
15	Dwy 6 & 5th St.	AM	18.9	0.500	C
		PM	32.7	0.560	D

Notes:

Bold values indicate intersections operating at LOS E or F.

ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the Highway Capacity Manual 6th Edition and performed using Synchro 11

(c) Intersections 11-15 are side street stop controlled

**TABLE 12
SUMMARY OF ROADWAY SEGMENT ANALYSIS
HORIZON YEAR 2040 CUMULATIVE BASE**

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY ¹	HORIZON YEAR 2040 BASE		
			ADT	V/C RATIO	LOS
5th Street					
J Street to Southbound I-215 Ramps	4-Lane Major	40,000	32,848	0.821	D
Southbound I-215 Ramps to Northbound I-215 Ramps	4-Lane Major	40,000	38,251	0.956	E
Northbound I-215 Ramps to H St	4-Lane Major	40,000	43,605	1.090	F
H St to G St	4-Lane Major	40,000	33,560	0.839	D
G St to F St	4-Lane Major	40,000	31,988	0.800	C
F St to E St	4-Lane Major	40,000	30,361	0.759	C
E St to D St	4-Lane Major	40,000	29,137	0.728	C
D St to Arrowhead Ave	4-Lane Major	40,000	28,067	0.702	B
Notes:					
Bold volumes indicate roadway segments operating at LOS D, E, or F					
¹ Source: City of San Bernardino General Plan Update (2005)					
² Level of Service result assumes improvement identified in Opening Year 2023 Plus Other Projects baseline condition deficiencies.					
LOS = Level of Service					
ADT = Average Daily Traffic					
V/C = Volume-to-Capacity					

Horizon Year 2040 Plus Project Conditions

Project-related traffic was added to the Horizon Year 2040 traffic volumes. Future Build-out 2040 Cumulative Base Plus Project traffic volumes at the study intersections and the roadway segments are shown on **Figure 15**.

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the Horizon Year 2040 Plus Project condition. The results are shown on **Table 13**. Copies of intersection analysis worksheets are provided in **Appendix C**. Review of this table indicates that with the addition of Project traffic, all project intersections are projected to operate at acceptable LOS, except for the Driveway 6 & 5th Street, which will operate at unacceptable LOS F for the southbound left turns (exiting traffic from Gateway Downtown Parcel A) with delays of 50.8 seconds.

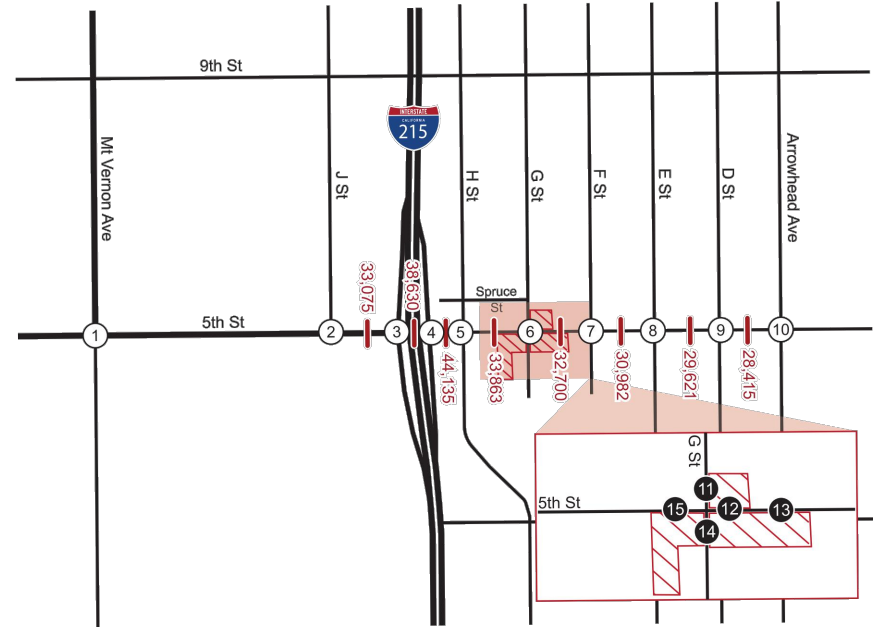
Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted for the Future Build-Out 2040 Cumulative Base Plus Project condition, and the results are summarized on **Table 14**. Review of this table indicates that with the addition of Project traffic, the following study roadway segments would continue to operate at unacceptable LOS:

- 5th Street between J Street and Southbound I-215 Ramps – LOS D
- 5th Street between Southbound I-215 Ramps and Northbound I-215 Ramps – LOS E
- 5th Street between Northbound I-215 Ramps and H Street – LOS F
- 5th Street between H Street and G Street – LOS D

FIGURE 15 - Future Build-Out 2040 Plus Project Traffic Volumes

1	69 / 93 524 / 423 140 / 127 ML Vernon Ave 93 / 171 492 / 633 67 / 85 5th St	2	21 / 7 132 / 94 J St 51 / 134 680 / 1004 5th St	3	185 / 189 13 / 6 770 / 335 SB I-215 Ramp 537 / 974 393 / 620 5th St	4	225 / 744 658 / 1076 NB I-215 Ramp 166 / 392 1194 / 954 5th St
5	181 / 363 119 / 93 35 / 27 H St 24 / 50 639 / 1229 3 / 8 5th St	6	68 / 99 133 / 124 75 / 114 G St 60 / 142 601 / 1250 24 / 20 5th St	7	72 / 193 159 / 113 34 / 56 F St 70 / 104 622 / 1233 14 / 17 5th St	8	32 / 58 156 / 192 34 / 39 E St 16 / 19 611 / 1135 42 / 46 5th St
9	31 / 97 116 / 118 45 / 40 D St 32 / 56 612 / 987 45 / 33 5th St	10	51 / 63 229 / 157 34 / 26 Arrowhead Ave 38 / 49 601 / 893 56 / 45 5th St	11	13 / 13 233 / 298 9 / 6 G St 5 / 2 8 / 2 Proj Dwy 1	12	38 / 28 Proj Dwy 2 24 / 18 647 / 1384 5th St
13	60 / 79 1168 / 759 86 / 55 32 / 130 50 / 165 28 / 25 5th St	14	72 / 70 959 / 721 192 / 56 54 / 113 90 / 402 32 / 99 5th St	15	41 / 38 34 / 30 Dwy 56 / 54 660 / 1383 13 / 28 5th St		
	1530 / 1030 0 / 13 Proj Dwy 3 0 / 6 0 / 6 5th St		12 / 10 221 / 162 G St Proj Dwy 5 25 / 20 7 / 7 5th St		23 / 23 162 / 387 20 / 14 Proj Dwy 6 24 / 41 5th St		



LEGEND

- X / Y: AM / PM Peak Hour Turning Volumes
- xx: Average Daily Traffic Volumes
- [Hatched Box]: Project Location
- (X): Unsignalized Project Intersection
- (X): Signalized Project Intersection



NOT TO SCALE

TABLE 13
HORIZON YEAR 2040 CONDITIONS
PEAK-HOUR INTERSECTION LEVEL OF SERVICE SUMMARY

	INTERSECTION	PEAK HOUR	HORIZON YEAR 2040 BASE			HORIZON YEAR 2040 PLUS PROJECT			Δ (c)	IMPACT IDENTIFIED?
			DELAY (a)	V/C	LOS (b)	DELAY (a)	V/C	LOS (b)		
1	Mt. Vernon Ave. & 5th St.	AM	17.3	0.54	B	17.4	0.540	B	0.000	NO
		PM	24.1	0.790	C	24.4	0.800	C	0.010	NO
2	5th St. & J St.	AM	5.4	0.400	A	5.4	0.400	A	0.000	NO
		PM	4.5	0.450	A	4.5	0.450	A	0.000	NO
3	I-215 SB Ramps & 5th St.	AM	24.5	0.690	C	24.7	0.700	C	0.010	NO
		PM	20.9	0.600	C	21.0	0.610	C	0.010	NO
4	I-215 NB Ramps & 5th St.	AM	26.1	0.770	C	26.2	0.770	C	0.000	NO
		PM	38.9	0.700	D	39.7	0.710	D	0.010	NO
5	H St. & 5th St.	AM	19.1	0.670	B	19.4	0.680	B	0.010	NO
		PM	38.8	0.920	D	39.9	0.930	D	0.010	NO
6	G St. & 5th St.	AM	8.5	0.610	A	8.7	0.620	A	0.010	NO
		PM	14.7	0.600	B	15.6	0.630	B	0.030	NO
7	F St. & 5th St.	AM	7.7	0.560	A	7.8	0.560	A	0.000	NO
		PM	17.4	1.130	B	18.3	1.180	B	0.050	NO
8	E St. & 5th St.	AM	12.5	0.650	B	12.8	0.650	B	0.000	NO
		PM	19.0	0.670	B	19.1	0.680	B	0.010	NO
9	F St. & 5th St.	AM	7.4	0.470	A	7.4	0.470	A	0.000	NO
		PM	12.3	0.490	B	12.5	0.490	B	0.000	NO
10	E St. & 5th St.	AM	9.3	0.480	A	9.4	0.490	A	0.010	NO
		PM	14.3	0.470	B	14.4	0.480	B	0.010	NO
11	Dwy 1 & G St.	AM	9.9	0.070	A	10.8	0.080	B	0.010	NO
		PM	10.7	0.120	B	12.7	0.130	B	0.010	NO
12	Dwy 2 & 5th St.	AM	-	-	-	11.0	0.630	B	-	NO
		PM	-	-	-	15.9	0.570	C	-	NO
13	Dwy 3 & 5th St.	AM	-	-	-	0.0	0.630	A	-	NO
		PM	-	-	-	19.9	0.580	C	-	NO
14	Dwy 4/5 & G St.	AM	-	-	-	10.4	0.090	B	-	NO
		PM	-	-	-	10.5	0.100	B	-	NO
15	Dwy 6 & 5th St.	AM	18.9	0.500	C	24.5	0.660	C	-	NO
		PM	32.7	0.560	D	50.8	0.570	F	-	YES

Notes:

Bold values indicate intersections operating at LOS E or F.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the Highway Capacity Manual 6th Edition and performed using Synchro 11

(c) Change in V/C due to addition of project traffic

(c) Intersections 11-15 are side street stop controlled

**TABLE 14
SUMMARY OF ROADWAY SEGMENT ANALYSIS
HORIZON YEAR 2040 PLUS PROJECT**

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY ¹	HORIZON YEAR 2040 BASE			LOS E CAPACITY ¹	HORIZON YEAR 2040 BASE PLUS			D in ADT
			ADT	V/C RATIO	LOS		ADT	V/C RATIO	LOS	
5th Street										
J Street to Southbound I-215 Ramps	4-Lane Major	40,000	32,848	0.821	D	40,000	33,046	0.826	D	198
Southbound I-215 Ramps to Northbound I-215 Ram	4-Lane Major	40,000	38,251	0.956	E	40,000	38,581	0.965	E	330
Northbound I-215 Ramps to H St	4-Lane Major	40,000	43,605	1.090	F	40,000	44,067	1.102	F	462
H St to G St	4-Lane Major	40,000	33,560	0.839	D	40,000	33,824	0.846	D	264
G St to F St	4-Lane Major	40,000	31,988	0.800	C	40,000	32,608	0.815	D	620
F St to E St	4-Lane Major	40,000	30,361	0.759	C	40,000	30,902	0.773	C	541
E St to D St	4-Lane Major	40,000	29,137	0.728	C	40,000	29,559	0.739	C	422
D St to Arrowhead Ave	4-Lane Major	40,000	28,067	0.702	B	40,000	28,370	0.709	C	303

Notes:

Bold volumes indicate roadway segments operating at LOS D, E, or F.

¹ Source: City of San Bernardino General Plan Update (2005)

² Level of Service result assumes improvement identified in Opening Year 2023 Plus Other Project baseline condition deficiencies.

LOS = Level of Service

ADT = Average Daily Traffic

V/C = Volume-to-Capacity

IMPROVEMENT MEASURES

As mentioned previously in the report, per the City of San Bernardino *Traffic Impact Study Guidelines*, new development is required to identify improvement measures at intersections that operate at LOS E or F or experience increase in V/C ratio as outlined in the Guidelines.

Based on these criteria, all study intersections are projected to operate acceptably, except for the southbound left turns (exiting traffic from Gateway Downtown Parcel A) at Driveway 6 & 5th Street, which will operate at unacceptable LOS E and LOS F during the 'Opening Year 2023 Plus Project' and 'Horizon Year 2040 Plus Project' scenarios during the PM peak hour.

It should be noted that the overall intersection of 'Driveway 6 & 5th Street' operates at acceptable LOS A under both 'Opening Year 2023 Plus Project' and 'Horizon Year 2040 Plus Project' scenarios. Acceptable LOS is observed for all moves at this study intersection and for traffic along 5th Street in both directions. For southbound left turn movements, gaps in the westbound traffic stream will be generated when the traffic signal at 5th Street/G Street turns to yellow and all-red phase, during which time the southbound left-turn movements will make the turn. For southbound right turn movements, vehicles will also enter the traffic stream when the traffic signal at 5th Street/G Street turns to yellow and all-red phase and with courtesy gaps.

Additionally, as per the site plan for Gateway Downtown Parcel A (shown in Figure 16), access to/from the project site is provided via multiple driveways. It is likely that exiting traffic (southbound left turns) at 'Driveway 6 & 5th Street' use other driveways to exit the project site which operates at acceptable LOS under the Opening Year 2023 and Cumulative Conditions, as per the previous Traffic Impact Study report (dated September 2020) for Parcel A. Therefore, no improvement measures are recommended at the 'Driveway 6 & 5th Street' intersection.

LOS worksheets are provided in **Appendix C**.

SITE ACCESS

The project site plan presented on **Figure 2**, **Figure 3** and **Figure 4** (previously referenced) indicates that vehicular access provisions for the project site would consist of the following unsignalized driveways:

- Driveway 1 is a 32-foot-wide driveway and provides ingress and egress off to G Street from Parcel B. Driveway 1 is on G Street would be located approximately 100 feet north of 5th Street.
- Driveway 2 is a 30-foot-wide driveway and provides ingress and egress off of 5th Street, located approximately 110 feet east of G Street. Driveway 2 would be a Right-In/Right-Out (RIRO) access driveway with pork-chop island off of 5th Street for Parcel B.

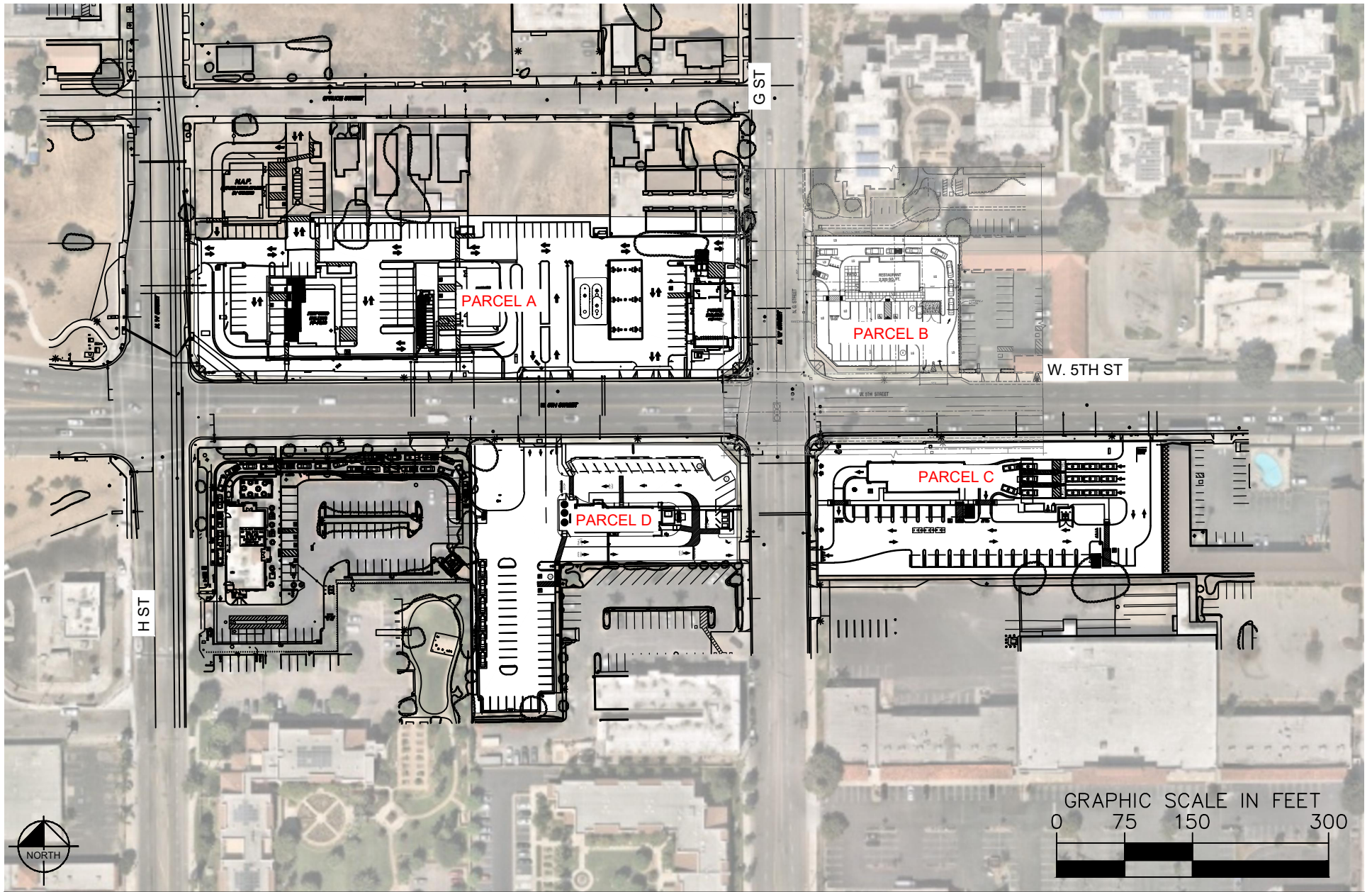
- Driveway 3 is a 30-foot-wide full vehicle access driveway, located approximately 350 feet east of G Street. Driveway 3 would be a full-movement driveway and provide ingress and egress off of 5th Street for Parcel C.
- Driveway 4 is a 14-foot-wide egress only driveway from Parcel C, located approximately 125 feet south of 5th Street.
- Driveway 5 is a 24-foot-wide full vehicle access driveway, located approximately 115 feet south of 5th Street. Driveway 5 would be a full movement driveway and provide ingress and egress off of G Street for Parcel D.
- Driveway 6 is a 36-foot-wide full vehicle access driveway, located approximately 235 feet west of G Street. The existing driveway on 5th Street to the In-N-Out parcel will be closed and the Parcel D driveway on 5th Street will be used as a combined driveway for both parcels. Driveway 6 provide 2 lanes for incoming traffic and one lane for exiting traffic. Left turns from this driveway are prohibited. Driveway 6 is directly opposite to the proposed driveway for Parcel A (northwest corner of G Street/5th Street).

The five proposed project driveways provide multiple access points to each individual land use on the project site. Project driveways are shown in **Figure 16**. Additionally, all project driveways are projected to have ingress 95th percentile queues of less than one vehicle length. As there are currently no right-turn lanes for adjacent and surrounding developments along 5th Street, and due to the low projected ingress queues at the project driveways, right-turn storage/deceleration lanes are not recommended to be installed at the project driveways.

PEDESTRIAN ACCESS

The project would provide sidewalks on the project frontage to connect gaps in pedestrian facilities.

FIGURE 16 - Project Driveways



QUEUING ANALYSIS

An on-site queuing analysis was conducted for Parcel B, Parcel C and Parcel D to determine the adequacy of the proposed drive-through lane queuing capacity during peak operating conditions. For Fast-Food Restaurants and Automated Car Wash, ITE Trip Generation Manual, 11th Edition identifies higher trip rates for a Saturday when compared to regular weekday. Therefore, for a worst-case scenario, Saturday Peak Hour of Generator rates were used to estimate the number of incoming trips for Fast Food Restaurants (Parcel B and Parcel D) and Automated Car Wash (Parcel C). Saturday peak hour trips are shown below:

ITE Land Use	ITE Land Use Code	Project Size	Daily Rate/Trips	Sat Peak-Hr Generator		
				Total Trips	IN	OUT
Fast-Food Restaurant w/ D.T.	934	- KSF	616.12	55.25	51%	49%
Automated Car Wash	948	- KSF	203.00	30.40	50%	50%
Total Trips						
Fast-Food Restaurant w/ D.T. (Parcel B)	934	2.325 KSF	1,432	128	65	63
Fast-Food Restaurant w/ D.T. (Parcel D)	934	2.321 KSF	1,430	128	65	63
Automated Car Wash (Parcel C)	948	3.596 KSF	730	109	55	54
Gross Trips Generated			3,592	365	185	180
Notes:						
1. Trip rates references from ITE Trip Generation, 11th Edition						
2. Daily and AM trip rates for Automated Car Wash are not available. Assuming PM trip rate is 15% of Daily.						

Parcel B: Fast-Food Restaurant

As per the Site Plan for Parcel B shown in **Figure 2**, the opening to the drive-through lane would be located east of the proposed development and would wrap around the building in the counterclockwise direction before exiting at the north side. The drive-through would provide a single-entry lane approximately 165 feet long from the entrance to the drive-thru lane to the pick-up window, providing queuing for 8 vehicles.

Note: At the time of this traffic report, the tenant (occupant) for Parcel B was not finalized. As identified earlier, once the tenant (occupant) is determined, the queuing analysis will need to be updated. The current queuing analysis for Parcel B is based on assumptions for a worst-case scenario.

The drive-through queuing capacity was analyzed using queuing analysis formulas published in the Institute of Transportation Engineers (ITE) Transportation Planning Handbook (4th Edition). A total of 128 trips (65 Incoming and 63 outgoing) were estimated on a Saturday as shown above.

The following assumptions were made for the Queuing Analysis:

- It takes approximately 360 seconds for the first vehicle to be served.
- 75% of the incoming trips (i.e., 49 trips) will be drive-through trips and the remaining 16 % will park, enter the restaurant and order (i.e., 23 trips).

Parcel B typical service time in the drive-through for a single vehicle being processed from the order board to the pick-up window is assumed to be 360 seconds (6 minutes). Subsequent vehicles would be processed at the pick-up window every 30 to 40 seconds during the peak drive-through periods. Assuming a more conservative processing time of 40 seconds per vehicle, and applying the ITE queuing formulas, the analysis indicates that the average queue length is estimated to be 1 vehicle during the peak operating hour. The probability of queues exceeding 8 vehicles at the drive-through during the peak operating hour is estimated to be 1.0%, or 1 minute.

The occurrence of the drive-through queue extending beyond the opening of the drive-through lane is not expected to be an issue as additional capacity of 2 vehicles exists between the opening of the drive-through lane and order window. The queuing calculation worksheet and formulas are provided as **Appendix F** of this report.

Parcel C (Quick Quack Car Wash): On-Site Queuing

On-site queuing was reviewed to determine if queuing caused by the operations of the car wash would spill back and effect the on-site circulation and/or 5th Street.

The following information was used:

- Processing time at car wash entry gates: 55 cars/hour
- Processing time for automatic car wash: 55 cars/hour

Queuing analysis was performed assuming the queue at the entry gate and car wash follows a single-channel queuing model with Poisson arrivals and exponential service-times (M/M/1 model). This is a simplification of the queuing type that occurs in practice and allows the queue length to be forecast without running a simulation.

Based on Site Plan for Parcel C and information provided by Quick Quack, three entry lanes will be provided for car wash. The processing time at the entry gates for members is anticipated to be significantly less than the non-members. This is due to cameras installed at the entrance gates, which will read the License Plate of the member vehicle entering and will determine based on the membership level, the type of car wash required. For non-members, the processing time is anticipated to be slightly higher. For a worst-case scenario queuing analysis, it was assumed that all vehicles entering the site are non-members.

Using the processing times provided, the Saturday peak hour trip generation, and the number of service channels, the model concluded that the 95th-percentile queue at the Entry Gates and at the Car Wash were the following:

- At the entry gate: 3 vehicles
- At the automatic car wash: 6 vehicles

The site has capacity for the following:

- Between the entry gate and the entrance: 12 vehicles
- Between the car wash and entry gate: 4 vehicles

Queuing capacity at Parcel C is more than the anticipated queue, therefore, the occurrence of the queues extending beyond the entry lanes is not expected to occur. The queuing calculation worksheet and formulas are provided as **Appendix F** of this report

Parcel C - Queuing Surveys at Existing Sites

To supplement the queuing analysis for Parcel C, queuing surveys were conducted at the following existing Quick Quack locations to observe the max queue:

- 31615 Yucaipa Blvd., Yucaipa, CA 92399
- 850 N. Main Street, Corona, CA 92880

The car wash location in Yucaipa includes 3 entry lanes which is similar to the proposed layout for Parcel C and the Corona location includes 2 entry lanes. The maximum back of queue for each entry lane was observed every 15- minutes during typical weekday AM (7:00 – 10:00) and PM (4:00 – 7:00) peak periods and on a Saturday (11 AM – 2 PM). The max queue observed is summarized in tables below and raw data files are attached in **Appendix H**:

Time Period	Typical Weekday Total Max Queue Observed	
	Yucaipa Site	Corona Site
7:00 AM - 7:15 AM	1	0
7:15 AM - 7:30 AM	3	2
7:30 AM - 7:45 AM	1	2
7:45 AM - 8:00 AM	2	4
8:00 AM - 8:15 AM	3	3
8:15 AM - 8:30 AM	3	4
8:30 AM - 8:45 AM	3	5
8:45 AM - 9:00 AM	5	5
9:00 AM - 9:15 AM	2	11
9:15 AM - 9:30 AM	2	9
9:30 AM - 9:45 AM	2	6
9:45 AM - 10:00 AM	2	3
4:00 PM - 4:15 PM	2	3
4:15 PM - 4:30 PM	2	5
4:30 PM - 4:45 PM	2	4
4:45 PM - 5:00 PM	3	4
5:00 PM - 5:15 PM	4	6
5:15 PM - 5:30 PM	2	3
5:30 PM - 5:45 PM	4	6
5:45 PM - 6:00 PM	5	7
6:00 PM - 6:15 PM	5	6
6:15 PM - 6:30 PM	7	5
6:30 PM - 6:45 PM	5	8
6:45 PM - 7:00 PM	5	4

During the weekday AM peak period, the maximum queue length observed was 5-vehicles at the Yucaipa Site and 11-Vehicles at the Corona Site. During the weekday PM peak period, the maximum queue length observed was 7-vehicles at the Yucaipa Site and 8-vehicles at the Corona Site.

Time Period	Weekend (Saturday)	
	Total Max Queue Observed	
	Yucaipa Site	Corona Site
11:00 AM - 11:15 AM	3	5
11:15 AM - 11:30 AM	2	4
11:30 AM - 11:45 AM	2	6
11:45 AM - 12:00 PM	3	6
12:00 PM - 12:15 PM	3	6
12:15 PM - 12:30 PM	4	8
12:30 PM - 12:45 PM	5	6
12:45 PM - 1:00 PM	3	5
1:00 PM - 1:15 PM	2	7
1:15 PM - 1:30 PM	5	8
1:30 PM - 1:45 PM	5	8
1:45 PM - 2:00 PM	9	10

On a Saturday mid-day peak period, the maximum queue length observed was 9-vehicles at the Yucaipa Site and 10-Vehicles at the Corona Site. The maximum queue observed was at Corona Site during the AM peak period of 11-vehicles. The queuing capacity at Parcel C is 15-vehicles which is more than the observed maximum queue at existing sites, therefore, the occurrence of the queues extending beyond the entry lanes is not expected to occur.

Parcel C – Contingency Plan

Based on the on-site queuing analysis and maximum queue observations at similar existing sites, it can be concluded that the vehicle storage capacity of 15-vehicles provided within Parcel C is sufficient to meet the anticipated/observed demand. It should also be noted that the processing time at the entry gates for members will be significantly due to cameras installed at the entrance gates, which will read the License Plate of the member vehicle entering and will determine based on the membership level, the type of car wash required. This will in turn reduce the vehicle queues within the site.

In case the queues exceed beyond the entry lanes and during emergency situations when the automated car wash is down, Quick Quack staff will enact a contingency plan, which involves an employee installing cones at the driveway entrance to restrict additional vehicles entering the site. Portable A-frame signs with 'Car Wash Closed' sign content may also be placed before the driveway entrance. Vehicles already queued within the entry lane will be directed to the parking/vacuum area using the exit driveway before the car wash building entrance.

Parcel D: Fast-Food Restaurant (SONIC): On-Site Queuing

As per the Site Plan for Parcel D shown in **Figure 4**, the opening to the drive-through lane would be located south of the proposed development and would wrap around the building in the counterclockwise direction before exiting at the north side. The drive-through would provide a single-entry lane approximately 190 feet long from the order window to the pick-up window, providing queuing for 8 vehicles.

The drive-through queuing capacity was analyzed using queuing analysis formulas published in the Institute of Transportation Engineers (ITE) Transportation Planning Handbook (4th Edition). A total of 180 trips (92 Incoming and 88 outgoing) were estimated on a Saturday as shown above.

The following assumptions were made for the Queuing Analysis:

- It takes approximately 240 seconds for the first vehicle to be served.
- 75% of the incoming trips (i.e., 49 trips) will be drive-through trips and the remaining 25 % will park, enter the restaurant and order (i.e., 16 trips).

Parcel D typical service time in the drive-through for a single vehicle being processed from the order board to the pick-up window is assumed to be 240 seconds (4 minutes). Subsequent vehicles would be processed at the pick-up window every 30 to 40 seconds during the peak drive-through periods. Assuming a more conservative processing time of 40 seconds per vehicle, and applying the ITE queuing formulas, the analysis indicates that the average queue length is estimated to be 1 vehicle during the peak operating hour. The probability of queues exceeding 8 vehicles at the drive-through during the peak operating hour is estimated to be 1%, or 1 minute.

Further, the occurrence of the drive-through queue extending beyond the opening of the drive-through lane is not expected to be an issue as additional capacity of 5 vehicles exists between the opening of the drive-through lane and order window. The queuing calculation worksheet and formulas are provided as **Appendix F** of this report.

Parcel D- Contingency Plan

In case the queues extend beyond the drive-thru lanes, SONIC proposes to enact a contingency plan, involving utilization of 'bump out lane'. The 'bump out lane' operation provided by SONIC is described in detail below:

At other drive-thru restaurants, if a customer has a small order, they may be stuck waiting in line behind a large order for many minutes. SONIC recognizes the small orders that can be serviced quickly. If a small order such as a drink is ready to be served to a car waiting in line, a carhop will come out of a special "bump out door" next to the pickup window, the carhop will deliver the customer the small order, collect their money or credit card, and process the transaction curbside. After the customer has received their order, the customer can simply and cautiously pull their car out of the drive-thru

lane into the adjacent “bump out lane” (with the assistance of the carhop) and exit the site. With this “bump out lane” service SONIC are able to increase the speed of service and therefore increase the drive-thru stacking potential by moving cars through the drive-thru at a much quicker pace. This unique feature to Sonic Drive-In! will ensure that the queues do not spill beyond the drive-thru lanes.

VMT SCREENING ANALYSIS

Senate Bill 743 (SB 743) was approved by California legislature in September 2013. SB 743 requires changes to California Environmental Quality Act (CEQA), specifically directing the Governor’s Office of Planning and Research (OPR) to develop alternative metrics to the use of vehicular “Level of Service” (LOS) for evaluating transportation projects. OPR has prepared a technical advisory (“OPR Technical Advisory”) for evaluating transportation impacts in CEQA and has recommended that Vehicle Miles Traveled (VMT) replace LOS as the primary measure of transportation impacts. The Natural Resources Agency has adopted updates to CEQA Guidelines to incorporate SB 743 that requires VMT for the purposes of determining a significant transportation impact under CEQA. The City of San Bernardino has adopted new Transportation Impact Guidelines (August 2020) and now relies on VMT as the measure for determining a project significant transportation impact under the CEQA process.

It is our understanding that the City of San Bernardino utilizes the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool. Using the Assessor’s Parcel Number (APN) as an input, the Screening Tool allows the users to determine if a project’s location meets one or more of the screening thresholds for the land use projects.

The City Guidelines provides details on appropriate screening thresholds that can be used to identify when a proposed land use project is anticipated to result in a less than significant impact without conducting a more detailed level analysis. Screening thresholds are broken into the following three steps:

1. Transit Priority Area (TPA) Screening
2. Low VMT Area Screening
3. Project Type Screening

A land use project needs only meet one of the above screening thresholds to be presumed to result in not significant impact under CEQA pursuant to SB 743.

Transit Priority Area (TPA) Screening

The project site (Parcel B, Parcel C and Parcel D) is well served by public transit provided by OmniTrans and Mountain Transit. Bus stops serving OmniTrans Route 14 are located near the project site on 5th Street at H Street and G Street and bus stops serving OmniTrans Route 10 are located at G Street. The same bus stops at G Street serve Mountain Transit Big Bear Off the Mountain (OTM) Route 5 which provide service to Lake Arrowhead and Big Bear Lake.

The project is located within a Transit Priority Area (TPA). Based on the project's proximity to a major transit station, the project can be presumed to have a less than significant impact based on its proximity to transit. Attachment A includes copies of OmniTrans Route 14 and 10 and Mountain Transit Routes 5 and 6.

The TPA screening threshold is met.

Low VMT Area Screening

The City Guidelines states that "residential and office projects located within a low VMT-generating area may presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, other employment-related land use project may qualify for the use of the screening if the project can reasonably be expected to generate VMT per resident, per worker or per service population that is similar to the existing land uses in the low VMT area". The Screening Tool uses the sub-regional San Bernardino Transportation Analysis Model (SBTAM) to measure VMT performance within individual traffic analysis zones (TAZ's) within the SBCTA region. The Project's physical location based on the APN is input into the Screening Tool to determine VMT generated by the existing TAZ as compared to the City's impact threshold of "better than General Plan Buildout VMT per service population". The parcels containing the proposed Project was selected and the Screening Tool was run for the Origin/Destination VMT per service population measure of VMT.

Based on the Screening Tool results, Parcel B is located within a low VMT generating zone, whereas Parcel C and Parcel D are outside the low VMT generating zones. Screening Tool results are shown in **Appendix G**.

The Low VMT Area screening threshold is met for Parcel B and not met for Parcel C and Parcel D.

Project Type Screening

The City Guidelines state that "Local serving retail projects less than 50,000 square feet may be presumed to have a less than significant impact absent substantial evidence to the contrary. Local serving retail generally improves the convenience of shopping close to home and has the effect of reducing vehicle travel.

In addition to local serving retail, the following uses may, at the discretion of the City, be presumed to have a less than significant impact as their uses are often local serving in nature:

- Local-serving retail uses less than 50,000 square feet, including:
 - Gas stations
 - Banks
 - Restaurants
 - Shopping Center"

The Gateway Downtown Parcels B, C and D (Project) consists of fast-food restaurants and a car wash

totaling under 50,000 square feet. The restaurants and the car wash will be local serving in nature and the Project is not anticipated to result in a significant impact under CEQA pursuant to SB 743.

The Project Type screening threshold is met.

Based on the above, it can be concluded that the project meets screening thresholds to be presumed to result in not significant impact under CEQA pursuant to SB 743.

FINDINGS AND CONCLUSIONS

- The project proposes to construct a Fast-Food restaurant in Parcel B (northeast quadrant) totaling 2,325 square feet, automated car wash (Quick Quack) in Parcel C (southeast quadrant) totaling 3,596 square feet and a Fast-Food restaurant (SONIC) in Parcel D (southwest quadrant) totaling 2,321 square feet.
- **Existing Conditions:**
 - All study intersections operate at acceptable LOS D or better.
 - The following roadway segment operates at unacceptable level of service:
 - 5th Street between Northbound I-215 Ramps and H Street - LOS E
- **Opening Year 2023:** The Opening Year 2023 scenario includes a 3% ambient annual growth rate. With the addition of ambient growth:
 - All study intersections operate at acceptable LOS D or better.
 - The following roadway segments would operate at unacceptable level of service:
 - 5th Street between Southbound I-215 Ramps and Northbound I-215 Ramps – LOS D
 - 5th Street between Northbound I-215 Ramps and H Street – LOS E
- **Opening Year 2023 + Other Projects:** Project-related traffic from Other Projects in the project vicinity was added to Opening Year 2023 Base traffic volumes to establish the conditions for the Opening Year 2023 Plus Other Projects scenario. With the addition of Other Projects traffic:
 - All study intersections operate at acceptable LOS D or better.
 - The following roadway segments would operate at unacceptable level of service:
 - 5th Street between Southbound I-215 Ramps and Northbound I-215 Ramps – LOS D
 - 5th Street between Northbound I-215 Ramps and H Street – LOS E
- The proposed project (Parcel B, Parcel C and Parcel D) is estimated to generate 2,514 gross trips on a daily basis, with 208 gross trips in the morning peak hour and 205 gross trips in the evening peak hour. The project (Parcel B, Parcel C and Parcel D) is estimated to generate

a net total of 1,319 new daily trips, with 104 new AM peak hour trips and 121 new PM peak hour trips.

- **Opening Year 2023 + Other Projects + Project (Parcel B, Parcel C and Parcel D):** Project traffic was added to Opening Year 2023 Plus Other Projects traffic volumes to establish the conditions for the Opening Year 2023 Plus Other Projects Plus Project scenario. Under this scenario:
 - All study intersections operate at acceptable LOS D or better, except for the Driveway 6 & 5th Street, which will operate at unacceptable LOS E for the southbound left turns (exiting traffic from Gateway Downtown Parcel A) with delays of 45.1 seconds.
 - The following roadway segments would continue to operate at unacceptable level of service:
 - 5th Street between Southbound I-215 Ramps and Northbound I-215 Ramps – LOS D
 - 5th Street between Northbound I-215 Ramps and H Street – LOS E
- **Horizon Year 2040 Conditions:** The San Bernardino Transportation Analysis Model (SBTAM) was used to develop forecast volumes for the Horizon Year 2040 Cumulative Base scenario. Under this scenario:
 - All study intersections operate at acceptable LOS D or better.
 - The following roadway segments would operate at unacceptable level of service:
 - 5th Street between J Street and Southbound I-215 Ramps – LOS D
 - 5th Street between Southbound I-215 Ramps and Northbound I-215 Ramps – LOS E
 - 5th Street between Northbound I-215 Ramps and H Street – LOS F
 - 5th Street between H Street and G Street – LOS D
- **Horizon Year 2040 Conditions + Project (Parcel B, Parcel C and Parcel D):** Project traffic was added to Horizon Year 2040 Cumulative Base traffic volumes to establish operating conditions for the Horizon Year 2040 Plus Project scenario. Under this scenario:
 - All study intersections operate at acceptable LOS D or better, except for the Driveway 6 & 5th Street, which will operate at unacceptable LOS F for the southbound left turns (exiting traffic from Gateway Downtown Parcel A) with delays of 50.8 seconds.
 - The following roadway segments would continue to operate at unacceptable level of service:
 - 5th Street between J Street and Southbound I-215 Ramps – LOS D
 - 5th Street between Southbound I-215 Ramps and Northbound I-215 Ramps – LOS E
 - 5th Street between Northbound I-215 Ramps and H Street – LOS F

- 5th Street between H Street and G Street – LOS D
- **Improvement Measures:** All study intersections are projected to operate acceptably, except for the southbound left turns (exiting traffic from Gateway Downtown Parcel A) at Driveway 6 & 5th Street, which will operate at unacceptable LOS E and LOS F during the ‘Opening Year 2023 Plus Project’ and ‘Horizon Year 2040 Plus Project’ scenarios during the PM peak hour.

It should be noted that the overall intersection of ‘Driveway 6 & 5th Street’ operates at acceptable LOS A under both ‘Opening Year 2023 Plus Project’ and ‘Horizon Year 2040 Plus Project’ scenarios. Acceptable LOS is observed for all moves at this study intersection and for traffic along 5th Street in both directions. For southbound left turn movements, gaps in the westbound traffic stream will be generated when the traffic signal at 5th Street/G Street turns to yellow and all-red phase, during which time the southbound left-turn movements will make the turn. For southbound right turn movements, vehicles will also enter the traffic stream when the traffic signal at 5th Street/G Street turns to yellow and all-red phase and with courtesy gaps.

Additionally, as per the site plan for Gateway Downtown Parcel A (shown in Figure 16), access to/from the project site is provided via multiple driveways. It is likely that exiting traffic (southbound left turns) at ‘Driveway 6 & 5th Street’ use other driveways to exit the project site which operates at acceptable LOS under the Opening Year 2023 and Cumulative Conditions, as per the previous Traffic Impact Study report (dated September 2020) for Parcel A. Therefore, no improvement measures are recommended at the ‘Driveway 6 & 5th Street’ intersection.

- **Queuing Analysis:** The occurrence of queues beyond the provided storage capacity is not expected to occur for Parcel B, Parcel C and Parcel D.
- **VMT Screening Analysis:** The project meets screening thresholds to be presumed to result in not significant impact under CEQA pursuant to SB 743.

Appendix A: Approved Scope of Study Form



City of San Bernardino Public Works / Traffic Engineering Department Traffic Scope Approval Form

To be completed by applicant consultant and approved by Public Works prior to start of study

Project Gateway Downtown Planning Area B, C, and D
 Name: Project Gateway Downtown
 Address: Project Northeast, Southeast, and Southwest corners of 5th St at G St
 Description: Carwash, and Fast Food Restaurants with Drive-through
 Developer's Name: ICO Real Estate Group
 Address: 4221 Wilshire Blvd., Suite 380, Los Angeles, CA 90010
 Telephone No. 949-529-7992 Email address: danielle@pdbcollab.com

Trip Generation Rates from ITE Latest Edition

Land Use (1) Fast-Food Restaurant with D.T. (Parcel B)
 Development Sq Ft 3,250 ksf
 ITE Land Use Code 934
 Daily Trips See Attached
 AM Peak Hour Trips
 Inbound _____
 Outbound _____
 Total _____
 PM Peak Hour Trips
 Inbound _____
 Outbound _____
 Total _____

Land Use (2) Fast-Food Restaurant with D.T. (Sonic - Parcel D)
 Development Sq Ft 2,321 ksf
 ITE Land Use Code 934
 Daily Trips See Attached
 AM Peak Hour Trips
 Inbound _____
 Outbound _____
 Total _____
 PM Peak Hour Trips
 Inbound _____
 Outbound _____
 Total _____

(Use Additional Sheet(s), if necessary)

Pass-by Trips (%), if applicable: Parcel B and Parcel D = Daily: 55%, AM: 50%, PM: 55%

Land Use (1) _____
 ITE Land Use Code _____
 Daily Trips See Attached
 AM Peak Hour Trips
 Inbound _____
 Outbound _____
 Total _____
 PM Peak Hour Trips:
 Inbound _____
 Outbound _____
 Total _____

Land Use (2) _____
 ITE Land Use Code _____
 Daily Trips See Attached
 AM Peak Hour Trips
 Inbound _____
 Outbound _____
 Total _____
 PM Peak Hour Trips:
 Inbound _____
 Outbound _____
 Total _____

Project Opening Year: 2023
 Study Intersections: 1 See Attached
 2 _____
 3 _____
 4 _____
 5 _____

Build-out Year: 2040
 6 _____
 7 _____
 8 _____
 9 _____
 10 _____

(Use Additional Sheet(s) and Maps to show project Boundaries & Attach memo for project Description)



City of San Bernardino Public Works / Traffic Engineering Department Traffic Scope Approval Form

To be completed by applicant consultant and approved by Public Works prior to start of study

Project Gateway Downtown Planning Area B, C, and D
 Name: Project Gateway Downtown
 Address: Project Northeast, Southeast, and Southwest corners of 5th St at G St
 Description: Carwash, and Fast Food Restaurants with Drive-through
 Developer's Name: ICO Real Estate Group
 Address: 1221 Wilshire Blvd., Suite 380, Los Angeles, CA 90010
 Telephone No. 949-529-7992 Email address: danielle@pdbcollab.com

Trip Generation Rates from ITE Latest Edition

Land Use (3) Car Wash- Quick Quack (Parcel C)
 Development Sq Ft 3,596
 ITE Land Use Code 948
 Daily Trips See Attached
 AM Peak Hour Trips
 Inbound _____
 Outbound _____
 Total _____
 PM Peak Hour Trips
 Inbound _____
 Outbound _____
 Total _____

Land Use _____
 Development Sq Ft _____
 ITE Land Use Code _____
 Daily Trips _____
 AM Peak Hour Trips
 Inbound _____
 Outbound _____
 Total _____
 PM Peak Hour Trips
 Inbound _____
 Outbound _____
 Total _____

(Use Additional Sheet(s), if necessary)

Pass-by Trips (%), if applicable: N/A %
 Land Use _____
 ITE Land Use Code _____
 Daily Trips _____
 AM Peak Hour Trips
 Inbound _____
 Outbound _____
 Total _____
 PM Peak Hour Trips:
 Inbound _____
 Outbound _____
 Total _____

Land Use _____
 ITE Land Use Code _____
 Daily Trips _____
 AM Peak Hour Trips
 Inbound _____
 Outbound _____
 Total _____
 PM Peak Hour Trips:
 Inbound _____
 Outbound _____
 Total _____

Project Opening Year: 2023
 Study Intersections: 1 See Attached
 2 _____
 3 _____
 4 _____
 5 _____

Build-out Year: 2040
 6 _____
 7 _____
 8 _____
 9 _____
 10 _____

(Use Additional Sheet(s) and Maps to show project Boundaries & Attach memo for project Description)



**City of San Bernardino Public Works / Traffic Engineering Department
Traffic Scope Approval Form**

To be completed by applicant consultant and approved by Public Works prior to start of study

Study Roadway Segments: 1 See Attached 2 _____
 3 _____ 4 _____
 5 _____ 6 _____

Proposed Development Use: Residential Commercial Mixed Use Other

Software Methodology: Synchro HCS

Additional issues to be considered: Traffic calming measures Queuing Analysis
 Bike/Ped Accommodations Merge Analysis Gap Analysis
 Actuation/Coordination Safety Analysis Sight Distance Analysis

Is the project screened from VMT assessment? Yes No

VMT Screening Justification: Project is local serving retail less than 50 TSF. A VMT screening analysis will be conducted as part of the traffic analysis.

Ambient Growth Rate: 3 %

Trip Distribution: East 14 % West 15 % North 35 % South 36 %

Consultant Preparer's Name: Kimley-Horn - Pranesh Tarikere

Address: 1100 w Town and Country Rd, Ste 700, Orange, CA 92868

Telephone No. 714-780-2543 PE / TE License #: TR 2728

Email Address: pranesh.tarikere@kimley-horn.com

Signature: Date: 1/24/2022

Approved By (Public Works Department):

Signature: Date: 1/27/2022

Name: Azam Jabshah Title: Traffic Engineer

Attachments:
1. Scoping Letter

submit a TIA & VMT screening assessment



January 26, 2022

Mr. Azzam Jabsheh
City of San Bernardino
201 N. E Street
San Bernardino, CA 92401

Subject: Gateway Downtown – Parcels B, C & D – Scoping Letter

Dear Mr. Azzam:

Kimley-Horn and Associates, Inc. is pleased to submit this scoping letter to the City of San Bernardino regarding the proposed Gateway Downtown Parcels B, C & D (**Project**). The project consists of 3 parcels (i.e., Parcel B, Parcel C and Parcel D) in the northeast, southeast and southwest quadrant of 5th Street and H Street. All parcels are vacant under existing conditions.

It should be noted that this scoping agreement is prepared in coordination with the City and in accordance with the City of San Bernardino '*Traffic Impact Analysis Guidelines*' dated August 2020.

PROPOSED PROJECT

The project consisting of 3 parcels proposes to construct a Fast-Food restaurant in Parcel B (northeast quadrant), an automated car wash (Quick Quack) in Parcel C (southeast quadrant) and a Fast-Food restaurant (SONIC) in Parcel D (southwest quadrant). An overall Site Plan showing all the parcels along with the proposed driveway is shown in **Figure 1**. The latest site plans for each individual parcel are attached in **Appendix A** of this letter.

STUDY INTERSECTIONS AND ROADWAY SEGMENTS

Kimley-Horn proposes to study the following study intersections and roadway segments as part of the traffic analysis report:

The intersections to be analyzed are listed below:

1. 5th Street at Mount Vernon Avenue
2. 5th Street at J Street
3. 5th Street at Southbound I-215 Ramps
4. 5th Street at Northbound I-215 Ramps
5. 5th Street at H Street
6. 5th Street at G Street
7. 5th Street at F Street
8. 5th Street at E Street
9. 5th Street at D Street
10. 5th Street at Arrowhead Avenue
11. Project Driveway 1 at G Street (north of 5 St – from northeast quadrant)
12. Project Driveway 2 at 5th Street (east of G St – from northeast quadrant)
13. Project Driveway 3 at 5th Street (west of G St – from southwest quadrant)
14. Project Driveway 4 at 5th Street (south of 5 St – from southwest quadrant)
15. Project Driveway 5 at G Street (south of 5 St – from southeast quadrant)

16. Project Driveway 6 at 5th Street (east of G St – from southeast quadrant)

The roadway segments to be analyzed are listed below:

1. 5th Street between J Street and Southbound I-215 Ramps
2. 5th Street between Southbound I-215 Ramps and Northbound I-215 Ramps
3. 5th Street between Northbound I-215 Ramps and H Street
4. 5th Street between H Street and G Street
5. 5th Street between G Street and F Street
6. 5th Street between F Street and E Street
7. 5th Street between E Street and D Street
8. 5th Street between D Street and Arrowhead Avenue

The location of study intersections and roadway segments are shown in **Figure 2**.

DATA COLLECTION

The traffic count data collected as part of the previous traffic study for the Gateway Downtown Project (Parcel A) will be used for the analysis. The traffic counts data previously collected will be adjusted using an ambient growth rate of 3% per year.

TRIP GENERATION

The trip generation rates for the project site were based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition (2021). Trip generation rates and the resulting project trips are summarized in **Table 1**. The proposed project is forecasted to generate 1,514 daily trips, with 124 trips (63 inbound and 61 outbound) during the morning peak hour and 134 trips (69 inbound and 65 outbound) during the evening peak hour.

Table 1: Trip Generation – Gateway Downtown Parcel B, C and D

ITE Land Use	ITE Land Use Code	Project Size		Daily Rate/Trips	AM Peak-Hour			PM Peak-Hour		
					Total Trips	IN	OUT	Total Trips	IN	OUT
Fast-Food Restaurant w/ D.T.	934	-	KSF	467.48	44.61	51%	49%	33.03	52%	48%
Automated Car Wash	948	-	KSF	95.00	0.00	0%	0%	14.20	50%	50%
Total Trips										
Fast-Food Restaurant w/ D.T. (Parcel B)	934	3.250	KSF	1,519	145	74	71	107	56	51
Fast-Food Restaurant w/ D.T. (Parcel D)	934	2.321	KSF	1,085	104	53	51	77	40	37
Automated Car Wash (Parcel C)	948	3.596	KSF	342	0	0	0	51	26	25
Gross Trips Generated				2,946	249	127	122	235	122	113
Pass-By Trips^{3,4}										
Fast-Food Restaurant w/ D.T. (Parcel B) (Pass-By Trips Daily-55%, AM-50%, PM-55%)				(835)	(73)	(37)	(36)	(59)	(31)	(28)
Fast-Food Restaurant w/ D.T. (Parcel D) (Pass-By Trips Daily-55%, AM-50%, PM-55%)				(597)	(52)	(27)	(25)	(42)	(22)	(20)
Automated Car Wash (Parcel C)				0	0	0	0	0	0	0
Pass-By Reduction				(1,432)	(125)	(64)	(61)	(101)	(53)	(48)
Net Project Trips				1,514	124	63	61	134	69	65

Notes:

1. Trip rates references from ITE Trip Generation, 11th Edition
2. Daily and AM trip rates for Automated Car Wash are not available. Assuming PM trip rate is 15% of Daily.
3. Pass-by trip reductions based on values contained in the ITE Trip Generation, 11th Edition
4. Daily pass-by trips only represent PM peak hour pass-by trips because no daily pass-by trips are provided in the ITE Trip Generation, 11th Edition.

To enable evaluation of the project access driveways, the project generated traffic will be distributed and assigned to the roadway network based on the existing traffic volumes, and/or engineering judgement.



Project trips from the previously conducted traffic study for the 'Gateway Downtown Parcel A' is shown in Table 2 below.

Table 2 – Gateway Downtown Parcel A – Trip Generation

GATEWAY DOWNTOWN PARCEL A - TRIP GENERATION											
TRIP RATES											
Land Use	Land Use as listed in ITE	Source	Units ¹	Daily Rate	AM Peak-Hour Rate			PM Peak-Hour Rate			
					% In	% Out	Rate	% In	% Out	Rate	
Fast-Food #1 (SW Parcel)	Fast-Food Restaurant w/ D.T.	ITE 934	ksf	470.95	51%	49%	40.19	52%	48%	32.67	
Fast-Food #2 (SE Parcel)	Fast-Food Restaurant w/ D.T.	ITE 934	ksf	470.95	51%	49%	40.19	52%	48%	32.67	
Fast-Food #2 (SE Parcel)	Fast-Food Restaurant w/ D.T.	ITE 934	ksf	470.95	51%	49%	40.19	52%	48%	32.67	
7-Eleven with Gas Station	Gasoline Station w/ Convenience Market	ITE 945	ksf	1,440.02	51%	49%	75.99	51%	49%	88.35	
PROJECT TRIPS											
Land Use	Land Use as listed in ITE	Units ¹	Daily Trips	AM Peak-Hour			PM Peak-Hour				
				In	Out	Total	In	Out	Total		
Proposed											
Fast-Food #1 (SW Parcel)	Fast-Food Restaurant w/ D.T.	2,200	ksf	1,036	45	43	88	37	35	72	
	<i>Pass-By Trips (49% AM, 50% PM, 49% Daily)</i>			-508	-22	-21	-43	-19	-18	-37	
Fast-Food #2 (SE Parcel)	Fast-Food Restaurant w/ D.T.	2,800	ksf	1,319	57	56	113	48	43	91	
	<i>Pass-By Trips (49% AM, 50% PM, 49% Daily)</i>			-646	-28	-27	-55	-24	-22	-46	
Fast-Food #3 (NW Parcel)	Fast-Food Restaurant w/ D.T.	2,400	ksf	1,130	49	47	96	41	37	78	
	<i>Pass-By Trips (49% AM, 50% PM, 49% Daily)</i>			-554	-24	-23	-47	-21	-19	-40	
7-Eleven with Gas Station	Gasoline Station w/ Convenience Market	3,062	ksf	4,409	119	114	233	138	133	271	
	<i>Pass-By Trips (62% AM, 56% PM, 56% Daily)</i>			-2,469	-74	-71	-145	-77	-74	-151	
Total Driveway Trips (unreduced)				7,894	270	260	530	264	248	512	
Total Net Trips				3,717	122	118	240	123	115	238	
Note: 1. ksf = Thousand Square Feet 2. Trip rates references from ITE Trip Generation, 10th Edition.											

Note: The Site Plan for the Fast-Food Restaurant with Drive-Thru development within Parcel D (SONIC), proposed to combine the existing In-N-Out Burger driveway along 5th Street and provide one driveway allowing access to both landuses. Driveway count data will be collected at both existing driveways to the In-N-Out parcel, and existing trips at the In-N-Out Burger driveway along 5th Street will be estimated using the collected driveway counts and added to the trip estimates for Parcel D (SONIC) to arrive at driveway volumes for analysis.

TRIP DISTRIBUTION



The proposed trip distribution for all the parcels is shown in **Figure 2**.

Cumulative Project List

The anticipated opening year for all parcels is 2023. We will contact the City's planning division to obtain the latest cumulative projects lists within the vicinity of the proposed developments.

Horizon Year 2040 Cumulative Base Conditions

2040 Volumes from the previous approved 'Gateway Downtown traffic study for Parcel A' will be used and project traffic will be added to 'Horizon Year (2040) Plus Project Conditions'

VMT Screening Analysis

A VMT screening analysis will be conducted for the proposed development as part of the traffic analysis report. It is our understanding that the City of San Bernardino utilizes the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool for VMT analysis. The screening tool allows the users to input an assessor's parcel number (APN) to determine if the project location meets one or more of the screening thresholds for land use projects.

Kimley-Horn will use the Screening Tool to conduct VMT analysis for the proposed project and the documentation of the VMT analysis will be included as part of the traffic analysis report.

Please contact us at 714-780-2543 if you have any questions.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "Pranesh Tarikere".

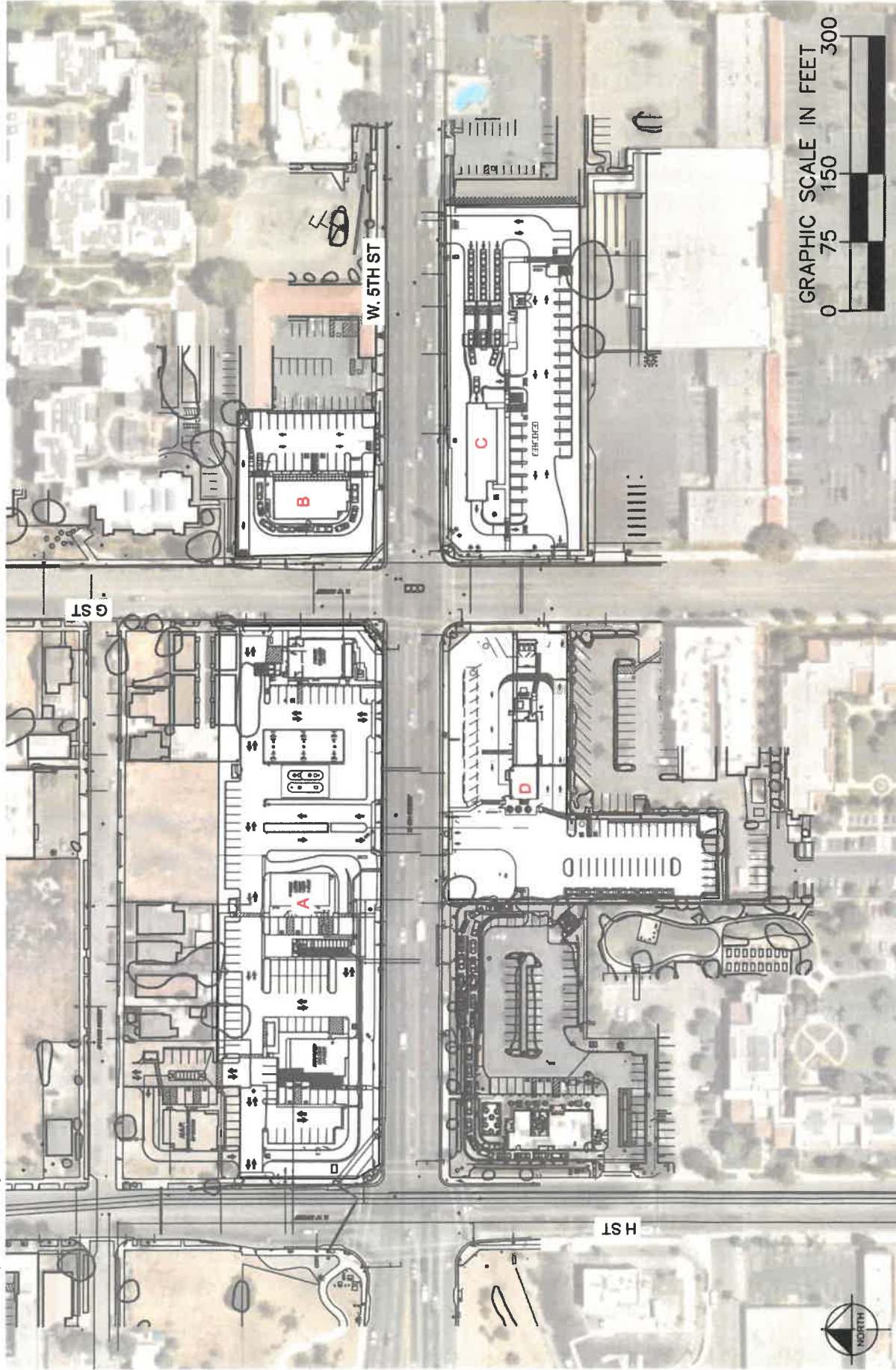
Pranesh Tarikere
#TR 2728

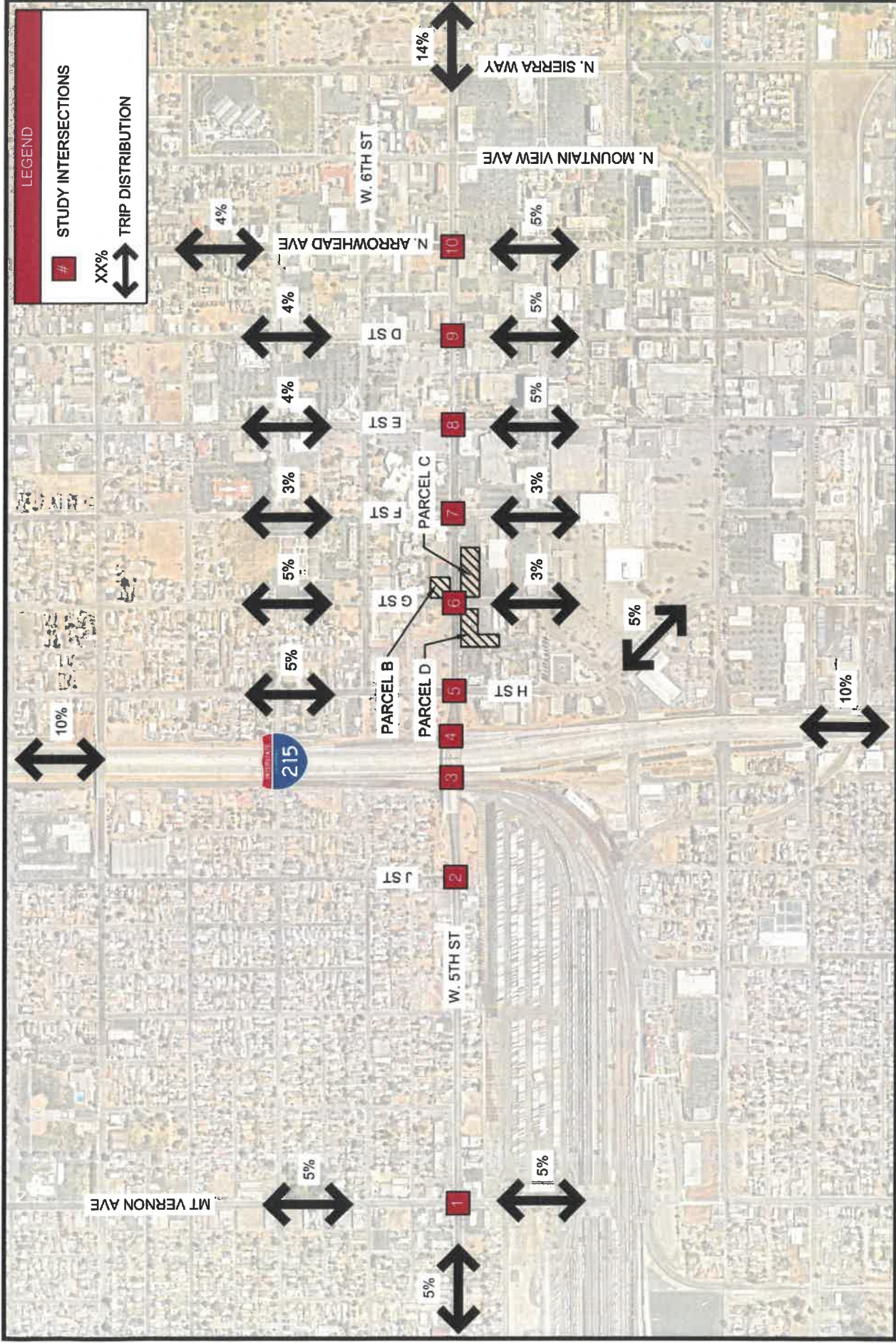


APPENDIX A

- 1. Parcel B (Fast-Food Restaurant with Drive-Thru) – Site Plan**
- 2. Parcel C (Automated Car Wash - Quick Quack) – Site Plan**
- 3. Parcel D (Fast-Food Restaurant with Drive-Thru – SONIC) – Site Plan**

FIGURE 1 - Project Driveways





TRIP DISTRIBUTION
Figure 2



APPENDIX A

1. Parcel B (Fast-Food Restaurant with Drive-Thru) – Site Plan
2. Parcel C (Automated Car Wash - Quick Quack) – Site Plan
3. Parcel D (Fast-Food Restaurant with Drive-Thru – SONIC) – Site Plan



LA Design Group, Inc.
 2401 CALVERT STREET, SUITE 203
 DANA POINT, CA 92629
 (714) 950-8900



NOTES: This information is provided for informational purposes only. It is not intended to be used as a basis for any legal or financial decision. The information is provided as is, without warranty of any kind, express or implied. The user assumes all responsibility for any and all errors or omissions in this information.

FAST FOOD RESTAURANT
 NEC WEST 5TH STREET & NORTH G STREET
 SAN BERNARDINO, CA



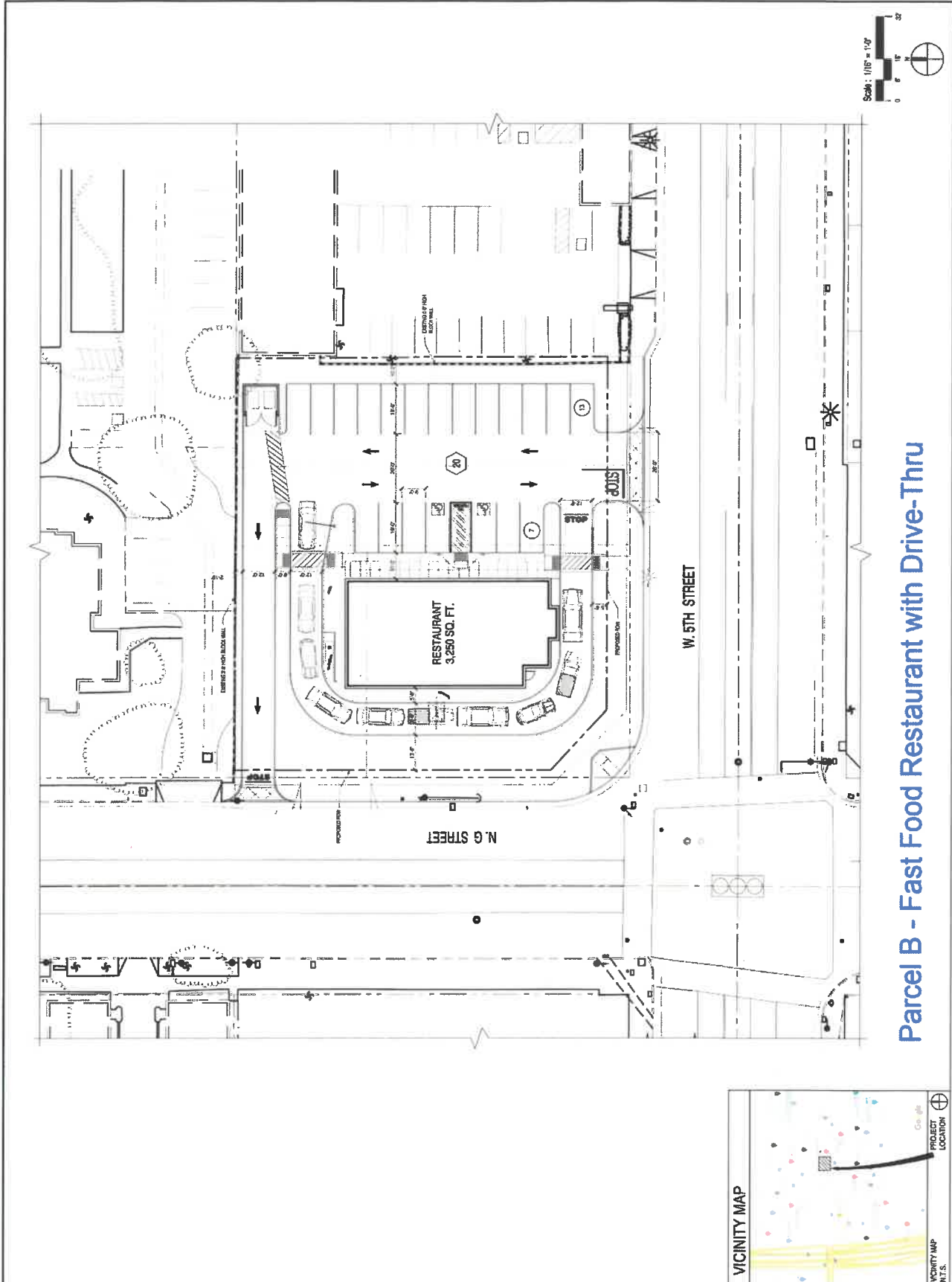
ICO REAL ESTATE GROUP
 4221 WILSHIRE BLVD., SUITE 200
 LOS ANGELES, CA 90010

CLIENT ORGANIZATION	11/05/2021
DATE	11/05/2021
PROJECT NO.	211102-01
CREATED BY	AS NOTED
REVISIONS	AS NOTED
DATE	
BY	
DATE	
BY	

SITE PLAN

AS 1.01

LA DESIGN GROUP HAS ALL RIGHTS RESERVED



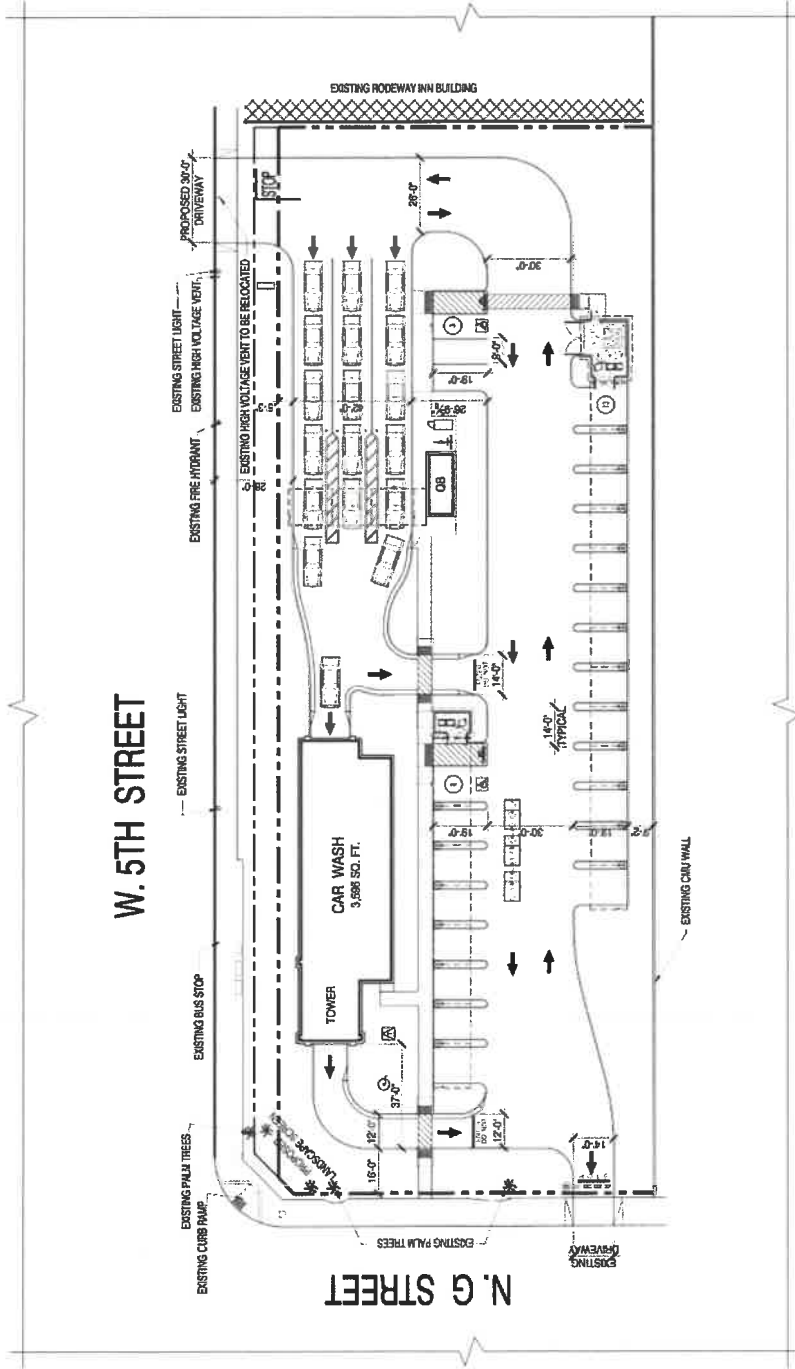
Parcel B - Fast Food Restaurant with Drive-Thru

SITE PLAN SCALE 1/16" = 1'-0" **1**

Parcel C - Quick Quack Car Wash

W. 5TH STREET

N. G STREET



VICINITY MAP

SITE PLAN

Scale: 1" = 20'-0"

PROJECT LOCATION
N.T.S.

Scale: 1" = 20'-0"

1



LA Design Group, Inc.
2401 GATEWAY CENTER DRIVE, STE. 203
DUNWOODY, GA 30338
(770) 406-8863/3910



NOTES: This information is intended to be used in conjunction with the project description and drawings. It is not intended to be a substitute for a professional engineer's design or a substitute for a professional engineer's seal. The information is provided for informational purposes only and is not intended to be used for any other purpose.



QUICK QUACK
CAR WASH
(STORE 44-287)
WEST 5TH STREET & NORTH G STREET
SAN BERNARDINO, CA

ICO REAL ESTATE GROUP
4221 WILSHIRE BLVD., STE. 300
LOS ANGELES, CA 90010

CLIENT REVISION: 10/17/2021
CLIENT REVISION: 11/22/2021
CLIENT REVISION: 10/21/2021
CLIENT REVISION: 11/22/2021
PROJECT NO.: 1122222222
DATE: 11/22/2021
DRAWN BY: J. [Name]
CHECKED BY: [Name]
SCALE: AS NOTED
SHEET NO. 1

SITE PLAN
AS 1.01

LA DESIGN GROUP 2021 ALL RIGHTS RESERVED.

Appendix B: Traffic Count Data Sheets

National Data & Surveying Services

Intersection Turning Movement Count

Location: H St & Spruce St W
 City: San Bernardino
 Control: 2-Way Stop (EB/WB)

Project ID: 20-06038-001
 Date: 3/5/2020

Total

NS/EW Streets:	H St				H St				Spruce St W				Spruce St W				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	26	1	0	0	59	0	0	0	0	1	0	2	0	2	0	91
7:15 AM	0	40	0	0	1	70	1	0	1	0	0	0	0	0	4	0	117
7:30 AM	0	47	0	0	2	86	1	0	0	0	1	0	1	0	1	0	139
7:45 AM	3	52	5	0	1	77	0	0	1	1	0	0	2	2	5	0	149
8:00 AM	1	43	1	0	0	54	0	0	1	0	0	0	0	0	7	0	107
8:15 AM	0	51	2	0	1	51	2	0	2	0	0	0	0	0	4	0	113
8:30 AM	0	56	3	0	2	64	2	0	0	0	0	0	4	1	3	0	135
8:45 AM	0	46	2	0	0	82	0	0	0	0	0	0	0	1	3	0	134
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	4	361	14	0	7	543	6	0	5	1	2	0	9	4	29	0	985
	1.06%	95.25%	3.69%	0.00%	1.26%	97.66%	1.08%	0.00%	62.50%	12.50%	25.00%	0.00%	21.43%	9.52%	69.05%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	4	182	6	0	4	287	2	0	3	1	1	0	3	2	17	0	512
PEAK HR FACTOR :	0.333	0.875	0.300	0.000	0.500	0.834	0.500	0.000	0.750	0.250	0.250	0.000	0.375	0.250	0.607	0.000	0.859
		0.800				0.823				0.625				0.611			
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	101	9	0	7	92	0	0	1	0	0	0	1	0	9	0	219
4:15 PM	0	108	9	0	3	90	0	0	0	0	0	0	4	1	4	0	220
4:30 PM	1	105	19	0	6	103	0	0	0	0	1	0	2	0	9	0	246
4:45 PM	0	71	8	0	9	102	0	1	0	0	0	0	5	0	9	0	205
5:00 PM	0	97	7	0	8	92	0	0	0	0	0	0	3	0	9	0	216
5:15 PM	0	87	6	0	10	96	0	0	0	0	0	0	3	0	8	0	210
5:30 PM	0	82	6	0	6	84	0	0	0	0	0	0	4	0	5	0	187
5:45 PM	0	84	4	0	3	84	1	0	0	0	0	0	2	0	2	0	180
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	1	735	68	0	52	743	1	1	1	0	1	0	24	1	55	0	1683
	0.12%	91.42%	8.46%	0.00%	6.52%	93.22%	0.13%	0.13%	50.00%	0.00%	50.00%	0.00%	30.00%	1.25%	68.75%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	1	385	45	0	25	387	0	1	1	0	1	0	12	1	31	0	890
PEAK HR FACTOR :	0.250	0.891	0.592	0.000	0.694	0.939	0.000	0.250	0.250	0.000	0.250	0.000	0.600	0.250	0.861	0.000	0.904
		0.862				0.922				0.500				0.786			

National Data & Surveying Services

Intersection Turning Movement Count

Location: H St & Spruce St W
City: San Bernardino
Control: 2-Way Stop (EB/WB)

Project ID: 20-06038-001
Date: 3/5/2020

Bikes

NS/EW Streets:	H St				H St				Spruce St W				Spruce St W						
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
		0	2	0	0	0	2	0	0	0	1	0	0	0	1	0		0	
		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR		WU	
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL		
APPROACH %'s :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
	0.00%	100.00%	0.00%	0.00%															
PEAK HR :	07:15 AM - 08:15 AM																TOTAL		
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0		
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
		0	2	0	0	0	2	0	0	0	1	0	0	0	1	0		0	0
		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR		WU	
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0		0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	4:45 PM	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0		0	3
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
5:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1		
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL		
APPROACH %'s :	0	0	0	0	0	1	1	0	1	0	1	0	0	2	0	0	6		
	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	50.00%	0.00%	50.00%	0.00%	50.00%	0.00%	0.00%	100.00%	0.00%	0.00%			
PEAK HR :	04:00 PM - 05:00 PM																TOTAL		
PEAK HR VOL :	0	0	0	0	0	1	0	0	1	0	1	0	0	2	0	0	5		
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.500	0.000	0.000	0.417		
						0.250					0.250			0.500					

National Data & Surveying Services

Intersection Turning Movement Count

Location: H St & Spruce St W
City: San Bernardino

Project ID: 20-06038-001
Date: 3/5/2020

Pedestrians (Crosswalks)

NS/EW Streets:	H St		H St		Spruce St W		Spruce St W		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	1	0	0	0	0	1	0	0	2
7:30 AM	0	0	0	0	0	1	0	0	1
7:45 AM	0	0	0	0	0	2	0	2	4
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	2	2
8:30 AM	0	0	0	0	0	0	0	2	2
8:45 AM	0	0	0	0	0	1	1	0	2
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	1	0	0	0	0	5	1	6	13
	100.00%	0.00%			0.00%	100.00%	14.29%	85.71%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	1	0	0	0	0	4	0	2	7
PEAK HR FACTOR :	0.250					0.500		0.250	0.438
	0.250				0.500			0.250	

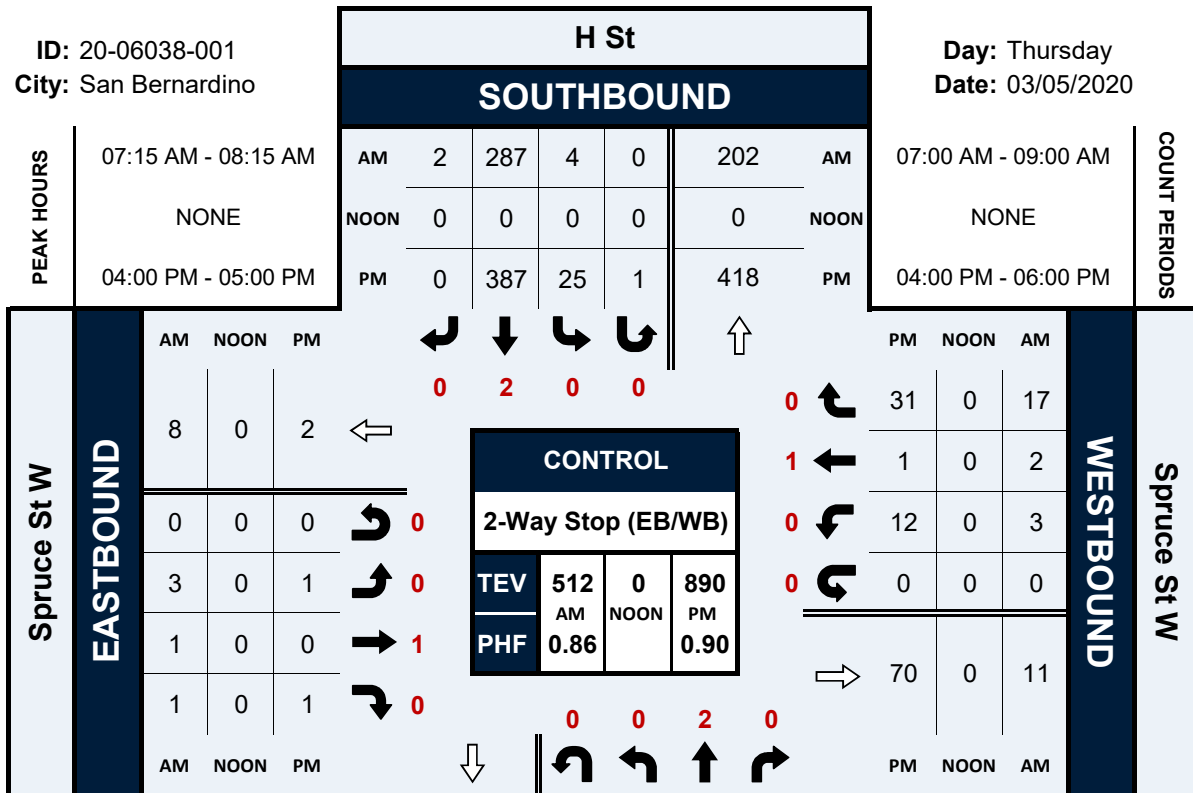
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	0	0	1	1
4:15 PM	0	0	0	0	0	1	0	2	3
4:30 PM	0	0	0	0	0	3	2	0	5
4:45 PM	0	0	0	0	1	1	0	1	3
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	3	2	1	0	6
5:30 PM	0	0	0	0	0	2	1	0	3
5:45 PM	0	0	0	0	2	1	0	1	4
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	0	0	6	10	4	5	25
					37.50%	62.50%	44.44%	55.56%	
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	1	5	2	4	12
PEAK HR FACTOR :					0.250	0.417	0.250	0.500	0.600
					0.500		0.750		

H St & Spruce St W

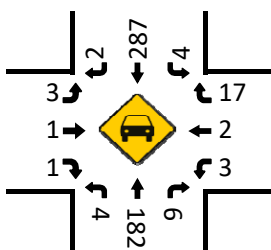
Peak Hour Turning Movement Count

ID: 20-06038-001
City: San Bernardino

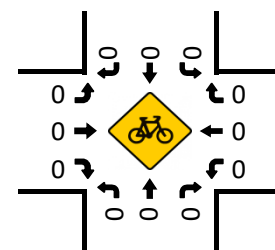
Day: Thursday
Date: 03/05/2020



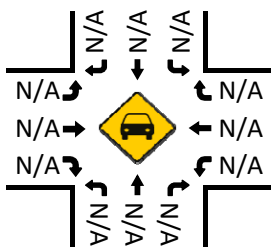
Total Vehicles (AM)



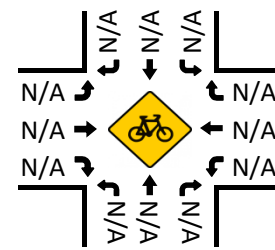
Bikes (AM)



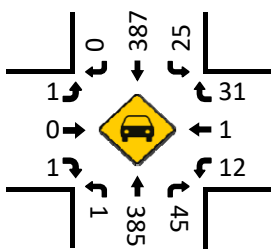
Total Vehicles (Noon)



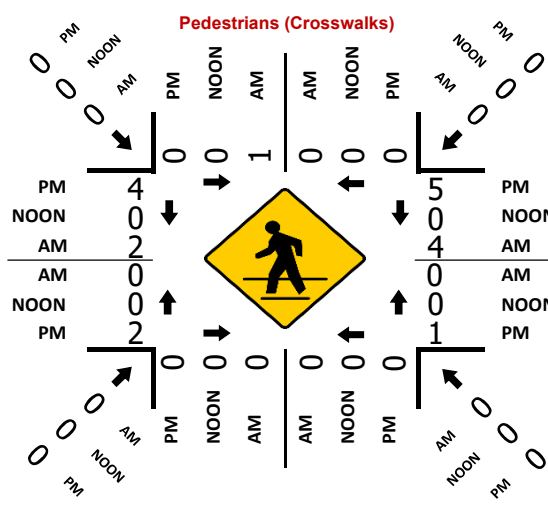
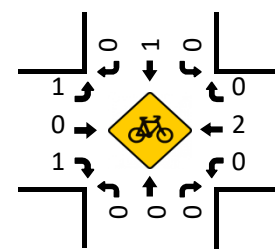
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: N G St & Spruce St W
 City: San Bernardino
 Control: 1-Way Stop (EB)

Project ID: 20-06038-002
 Date: 3/5/2020

Total

NS/EW Streets:	N G St				N G St				Spruce St W				Spruce St W				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	25	0	1	0	21	3	0	2	0	1	0	0	0	0	0	53
7:15 AM	0	23	0	0	0	40	4	0	0	0	1	0	0	0	0	0	68
7:30 AM	1	27	0	1	0	28	1	0	3	0	0	0	0	0	0	0	61
7:45 AM	4	29	0	0	0	38	5	0	6	0	1	0	0	0	0	0	83
8:00 AM	0	40	0	0	0	40	7	0	3	0	0	0	0	0	0	0	90
8:15 AM	0	37	0	0	0	30	4	0	2	0	0	1	0	0	0	0	74
8:30 AM	1	35	0	0	0	42	6	0	3	0	0	0	0	0	0	0	87
8:45 AM	0	42	0	0	0	42	4	0	3	0	0	0	0	0	0	0	91
TOTAL VOLUMES :	6	258	0	2	0	281	34	0	22	0	3	1	0	0	0	0	607
APPROACH %'s :	2.26%	96.99%	0.00%	0.75%	0.00%	89.21%	10.79%	0.00%	84.62%	0.00%	11.54%	3.85%					
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	1	154	0	0	0	154	21	0	11	0	0	1	0	0	0	0	342
PEAK HR FACTOR :	0.250	0.917	0.000	0.000	0.000	0.917	0.750	0.000	0.917	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.940
			0.923				0.911				1.000						
PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	2	71	0	0	0	68	13	0	8	0	7	0	0	0	0	0	169
4:15 PM	2	55	0	1	0	64	5	0	6	0	4	0	0	0	0	0	137
4:30 PM	5	66	0	1	0	65	9	0	20	0	5	0	0	0	0	0	171
4:45 PM	6	70	0	0	0	62	10	0	13	0	2	0	0	0	0	0	163
5:00 PM	5	64	0	1	0	64	7	1	12	0	5	1	0	0	0	0	160
5:15 PM	4	75	0	0	0	66	9	0	11	0	5	0	0	0	0	0	170
5:30 PM	2	78	0	0	0	61	6	2	10	0	4	0	0	0	0	0	163
5:45 PM	1	72	0	0	0	48	4	0	8	0	1	0	0	0	0	0	134
TOTAL VOLUMES :	27	551	0	3	0	498	63	3	88	0	33	1	0	0	0	0	1267
APPROACH %'s :	4.65%	94.84%	0.00%	0.52%	0.00%	88.30%	11.17%	0.53%	72.13%	0.00%	27.05%	0.82%					
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	20	275	0	2	0	257	35	1	56	0	17	1	0	0	0	0	664
PEAK HR FACTOR :	0.833	0.917	0.000	0.500	0.000	0.973	0.875	0.250	0.700	0.000	0.850	0.250	0.000	0.000	0.000	0.000	0.971
			0.940				0.977				0.740						

National Data & Surveying Services

Intersection Turning Movement Count

Location: N G St & Spruce St W
City: San Bernardino
Control: 1-Way Stop (EB)

Project ID: 20-06038-002
Date: 3/5/2020

Bikes

NS/EW Streets:	N G St				N G St				Spruce St W				Spruce St W				TOTAL
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	3
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	3	1	0	0	0	0	0	0	0	1	0	5
	0.00%	0.00%	0.00%	0.00%	0.00%	75.00%	25.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	3	1	0	0	0	0	0	0	0	1	0	5
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.375	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.417
					0.500								0.250				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
4:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	7	0	0	0	5	2	0	0	0	0	0	0	0	0	0	14
	0.00%	100.00%	0.00%	0.00%	0.00%	71.43%	28.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	4
PEAK HR FACTOR :	0.00	0.500	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
					0.500												

National Data & Surveying Services

Intersection Turning Movement Count

Location: N G St & Spruce St W
City: San Bernardino

Project ID: 20-06038-002
Date: 3/5/2020

Pedestrians (Crosswalks)

NS/EW Streets:	N G St		N G St		Spruce St W		Spruce St W		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	0	1	0	0	0	1	2
7:15 AM	0	0	0	0	0	0	0	2	2
7:30 AM	0	0	0	0	0	0	2	5	7
7:45 AM	1	0	0	0	0	0	1	3	5
8:00 AM	0	1	0	0	0	0	1	0	2
8:15 AM	0	1	0	0	0	0	3	2	6
8:30 AM	1	2	1	1	0	0	1	2	8
8:45 AM	0	0	0	0	0	0	1	1	2
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	2	4	1	2	0	0	9	16	34
	33.33%	66.67%	33.33%	66.67%			36.00%	64.00%	
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	1	4	1	1	0	0	6	5	18
PEAK HR FACTOR :	0.250	0.500	0.250	0.250			0.500	0.625	0.563
	0.417		0.250				0.550		

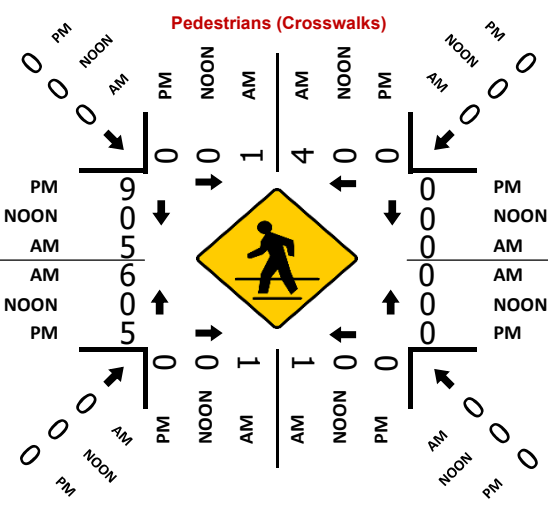
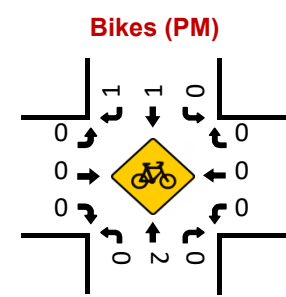
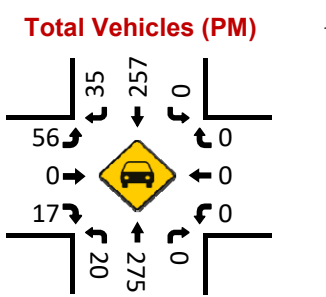
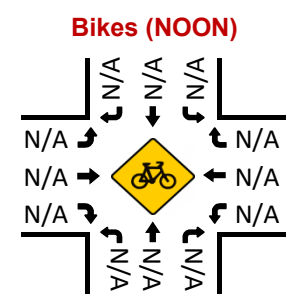
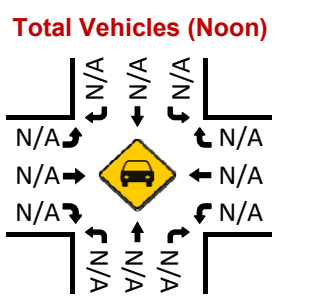
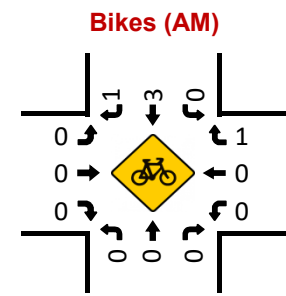
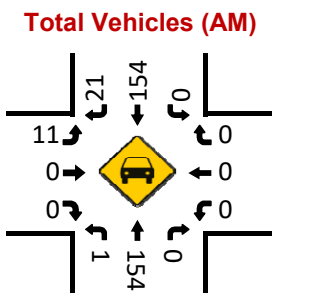
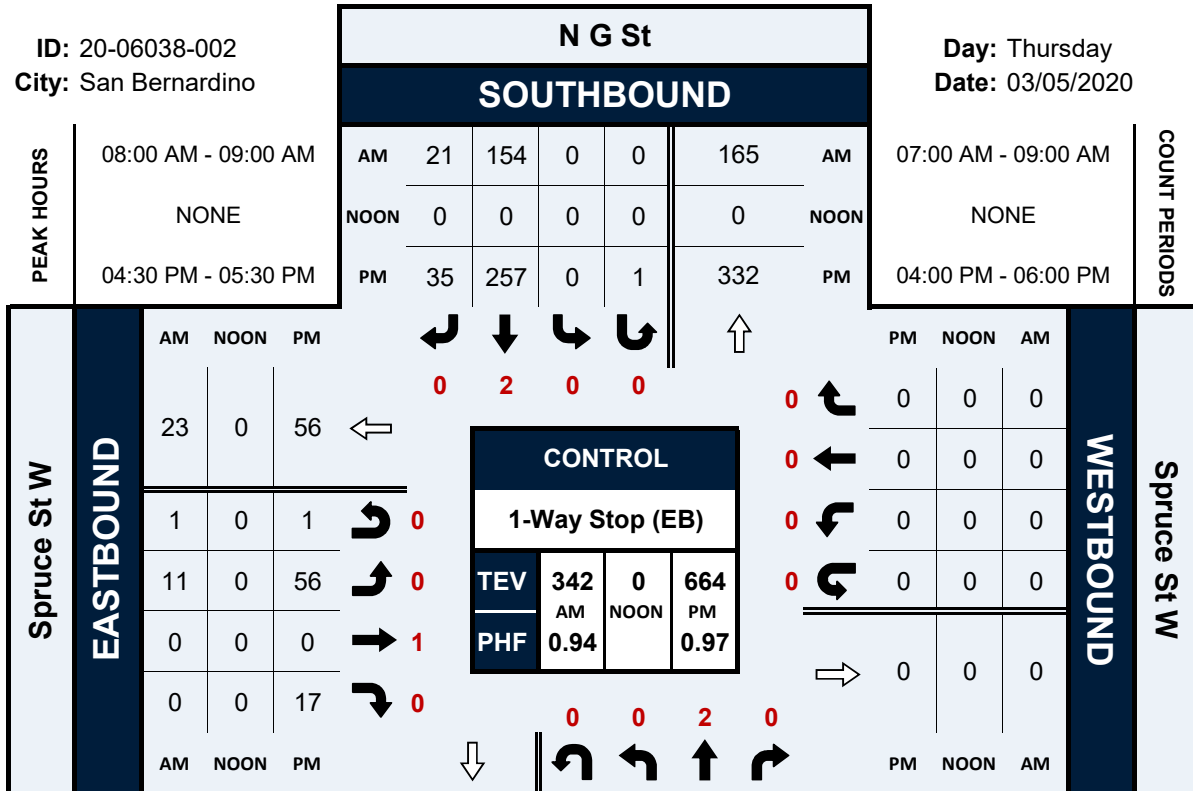
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	1	1	0	0	2	0	4
4:15 PM	0	0	0	0	0	0	1	2	3
4:30 PM	0	0	0	0	0	0	4	3	7
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	4	4
5:15 PM	0	0	0	0	0	0	1	2	3
5:30 PM	0	0	0	0	0	0	4	1	5
5:45 PM	0	0	0	1	0	0	5	0	6
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	1	2	0	0	17	12	32
			33.33%	66.67%			58.62%	41.38%	
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	5	9	14
PEAK HR FACTOR :							0.313	0.563	0.500
							0.500		

N G St & Spruce St W

Peak Hour Turning Movement Count

ID: 20-06038-002
City: San Bernardino

Day: Thursday
Date: 03/05/2020



National Data & Surveying Services

Intersection Turning Movement Count

Location: N Mt Vernon Ave & W 5th St
 City: San Bernardino
 Control: Signalized

Project ID: 20-06038-003
 Date: 3/5/2020

Total

NS/EW Streets:	N Mt Vernon Ave				N Mt Vernon Ave				W 5th St				W 5th St				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
7:00 AM	12	64	9	0	27	60	12	0	6	100	17	0	10	100	20	0	437
7:15 AM	22	103	7	0	30	123	14	0	9	138	31	0	8	115	10	0	610
7:30 AM	20	87	11	0	33	148	12	0	9	132	35	0	11	101	19	0	568
7:45 AM	11	61	9	0	34	122	16	0	32	124	32	0	15	91	21	0	568
8:00 AM	14	49	12	0	24	80	19	0	15	114	29	0	18	114	23	0	511
8:15 AM	20	71	7	0	35	86	12	0	16	104	25	0	15	91	30	0	512
8:30 AM	17	60	7	0	36	100	7	0	12	109	15	0	10	97	27	0	497
8:45 AM	15	61	7	0	37	96	22	0	13	120	28	0	17	89	19	0	524
TOTAL VOLUMES :	131	556	69	0	256	815	114	0	112	941	212	0	104	798	169	0	4277
APPROACH %'s :	17.33%	73.54%	9.13%	0.00%	21.60%	68.78%	9.62%	0.00%	8.85%	74.39%	16.76%	0.00%	9.71%	74.51%	15.78%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	67	300	39	0	121	473	61	0	65	508	127	0	52	421	73	0	2307
PEAK HR FACTOR :	0.761	0.728	0.813	0.000	0.890	0.799	0.803	0.000	0.508	0.920	0.907	0.000	0.722	0.915	0.793	0.000	0.933
			0.769				0.848				0.931				0.881		
PM	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
4:00 PM	33	120	15	0	22	102	20	0	25	123	26	0	17	156	43	0	702
4:15 PM	32	113	17	0	24	95	13	0	21	127	23	0	27	158	34	0	684
4:30 PM	26	123	11	0	26	104	17	0	26	130	24	0	21	122	32	0	662
4:45 PM	22	143	21	0	27	93	29	0	33	133	17	0	13	160	33	0	724
5:00 PM	39	136	27	0	25	105	24	0	25	134	29	0	17	143	46	0	750
5:15 PM	37	154	19	0	24	91	16	0	15	124	25	0	17	146	31	0	699
5:30 PM	30	133	16	0	32	98	16	0	27	142	31	0	7	124	32	1	689
5:45 PM	29	126	15	0	26	94	14	0	24	130	23	0	11	128	29	0	649
TOTAL VOLUMES :	248	1048	141	0	206	782	149	0	196	1043	198	0	130	1137	280	1	5559
APPROACH %'s :	17.26%	72.93%	9.81%	0.00%	18.12%	68.78%	13.10%	0.00%	13.64%	72.58%	13.78%	0.00%	8.40%	73.45%	18.09%	0.06%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	128	566	83	0	108	387	85	0	100	533	102	0	54	573	142	1	2862
PEAK HR FACTOR :	0.821	0.919	0.769	0.000	0.844	0.921	0.733	0.000	0.758	0.938	0.823	0.000	0.794	0.895	0.772	0.250	0.954
			0.925				0.942				0.919				0.934		

National Data & Surveying Services

Intersection Turning Movement Count

Location: N Mt Vernon Ave & W 5th St
City: San Bernardino
Control: Signalized

Project ID: 20-06038-003
Date: 3/5/2020

Bikes

NS/EW Streets:	N Mt Vernon Ave				N Mt Vernon Ave				W 5th St				W 5th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0	0	0	0	2
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	TOTAL
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	1	2	0	0	0	0	0	0	0	1	1	0	0	0	0	0	5
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	42.86%	57.14%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	50.00%	50.00%	0.00%	0.00%	0.00%	100.00%	0.00%	12
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	1	2	0	0	0	1	0	0	0	1	1	0	0	0	0	0	6
PEAK HR FACTOR :	0.25	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.300

National Data & Surveying Services

Intersection Turning Movement Count

Location: N Mt Vernon Ave & W 5th St
City: San Bernardino

Project ID: 20-06038-003
Date: 3/5/2020

Pedestrians (Crosswalks)

NS/EW Streets:	N Mt Vernon Ave		N Mt Vernon Ave		W 5th St		W 5th St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	3	0	1	1	0	1	0	6
7:15 AM	1	1	0	0	0	0	0	1	3
7:30 AM	0	0	1	0	0	0	1	1	3
7:45 AM	1	0	5	0	0	1	1	0	8
8:00 AM	0	3	0	1	1	0	1	2	8
8:15 AM	0	1	0	0	6	0	1	1	9
8:30 AM	2	4	1	0	4	0	3	1	15
8:45 AM	0	0	1	0	1	0	0	0	2
TOTAL VOLUMES :	EB 4	WB 12	EB 8	WB 2	NB 13	SB 1	NB 8	SB 6	TOTAL 54
APPROACH %'s :	25.00%	75.00%	80.00%	20.00%	92.86%	7.14%	57.14%	42.86%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	2	4	6	1	1	1	3	4	22
PEAK HR FACTOR :	0.500	0.333	0.300	0.250	0.250	0.250	0.750	0.500	0.688
	0.500		0.350		0.500		0.583		

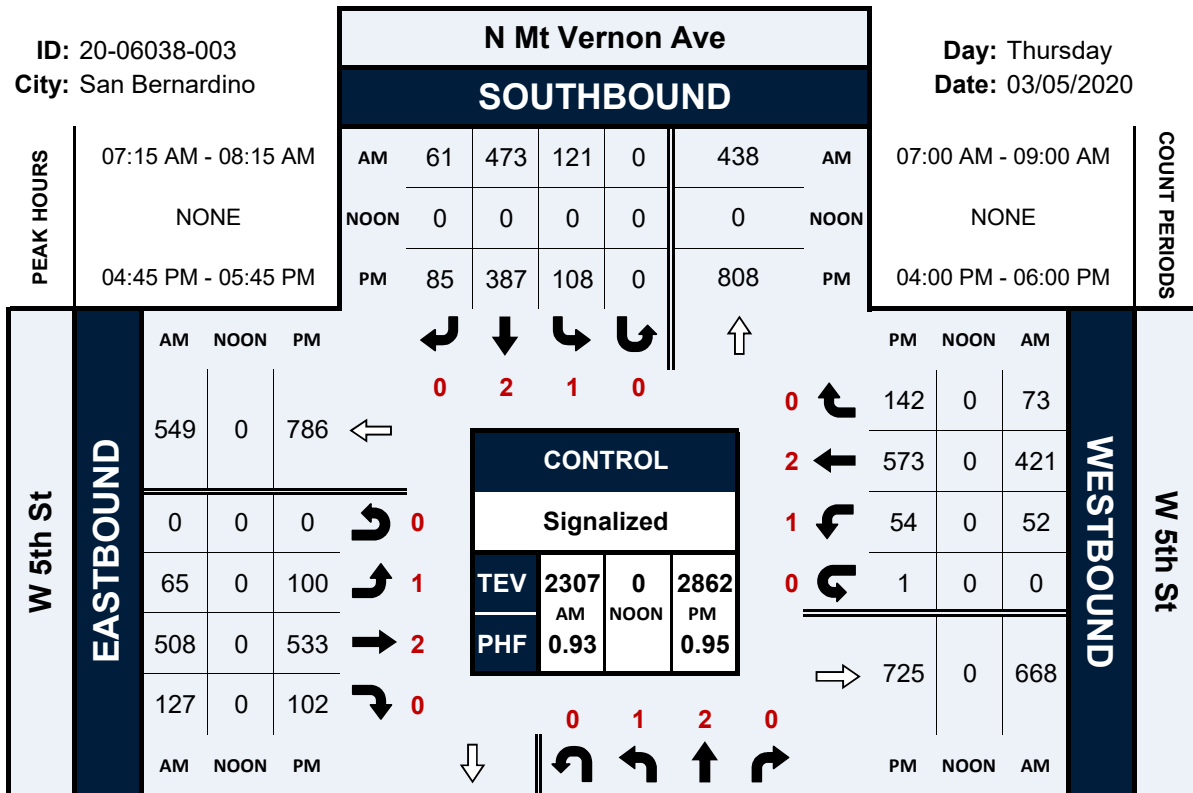
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	2	0	0	2	3	0	4	11
4:15 PM	2	1	0	1	0	0	1	0	5
4:30 PM	1	0	0	1	0	0	2	0	4
4:45 PM	0	2	1	0	0	0	0	0	3
5:00 PM	0	0	1	1	1	0	0	1	4
5:15 PM	0	1	1	0	3	1	1	0	7
5:30 PM	1	0	0	1	2	2	2	1	9
5:45 PM	1	1	1	0	1	0	3	5	12
TOTAL VOLUMES :	EB 5	WB 7	EB 4	WB 4	NB 9	SB 6	NB 9	SB 11	TOTAL 55
APPROACH %'s :	41.67%	58.33%	50.00%	50.00%	60.00%	40.00%	45.00%	55.00%	
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	1	3	3	2	6	3	3	2	23
PEAK HR FACTOR :	0.250	0.375	0.750	0.500	0.500	0.375	0.375	0.500	0.639
	0.500		0.625		0.563		0.417		

N Mt Vernon Ave & W 5th St

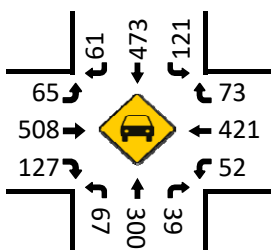
Peak Hour Turning Movement Count

ID: 20-06038-003
City: San Bernardino

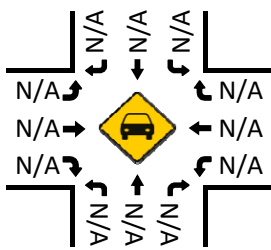
Day: Thursday
Date: 03/05/2020



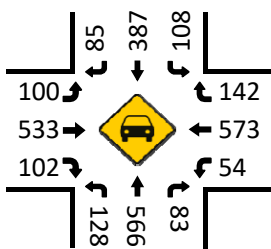
Total Vehicles (AM)



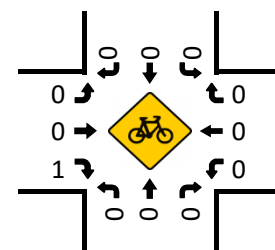
Total Vehicles (Noon)



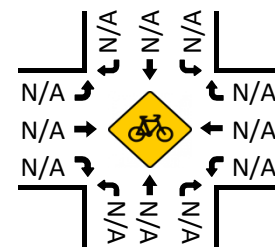
Total Vehicles (PM)



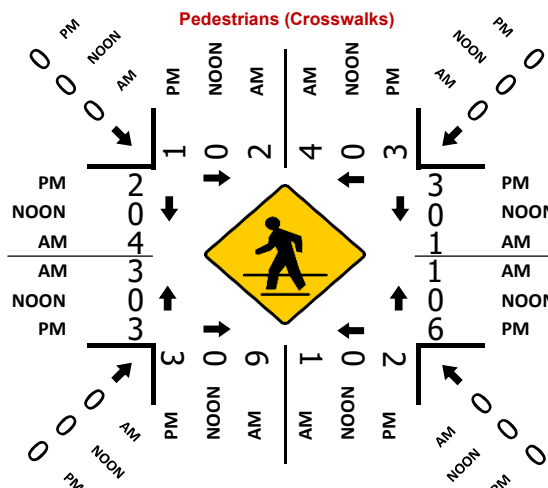
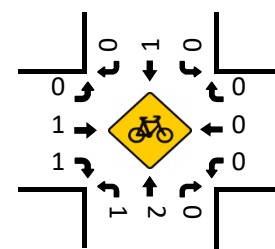
Bikes (AM)



Bikes (NOON)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: N J St & W 5th St
 City: San Bernardino
 Control: Signalized

Project ID: 20-06038-004
 Date: 3/5/2020

Total

NS/EW Streets:	N J St				N J St				W 5th St				W 5th St				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	39	0	1	0	0	132	0	0	0	129	9	0	310
7:15 AM	0	0	0	0	29	0	4	0	1	203	0	0	0	134	12	0	383
7:30 AM	0	0	0	0	37	0	2	0	1	220	0	0	0	142	12	0	414
7:45 AM	0	0	0	0	28	0	5	0	5	176	0	0	0	150	7	0	371
8:00 AM	0	0	0	0	12	0	5	0	0	158	0	0	0	158	16	0	349
8:15 AM	0	0	0	0	17	0	1	0	0	166	0	0	0	138	14	0	336
8:30 AM	0	0	0	0	23	0	2	0	1	170	0	0	0	145	20	0	361
8:45 AM	0	0	0	0	26	0	3	0	1	181	0	0	0	138	11	0	360
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	211	0	23	0	9	1406	0	0	0	1134	101	0	2884
					90.17%	0.00%	9.83%	0.00%	0.64%	99.36%	0.00%	0.00%	0.00%	91.82%	8.18%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	106	0	16	0	7	757	0	0	0	584	47	0	1517
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.716	0.000	0.800	0.000	0.350	0.860	0.000	0.000	0.000	0.924	0.734	0.000	0.916
							0.782			0.864				0.907			
PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	20	0	1	0	4	170	0	0	0	253	20	0	468
4:15 PM	0	0	0	0	24	0	4	0	4	190	0	0	0	215	23	0	460
4:30 PM	0	0	0	0	27	0	1	0	2	218	0	0	0	211	24	0	483
4:45 PM	0	0	0	0	11	0	1	0	2	204	0	0	0	231	21	0	470
5:00 PM	0	0	0	0	21	0	3	0	5	194	0	0	0	231	29	0	483
5:15 PM	0	0	0	0	27	0	1	0	2	197	0	0	0	212	35	0	474
5:30 PM	0	0	0	0	32	0	1	0	3	213	0	0	0	193	27	0	469
5:45 PM	0	0	0	0	28	0	2	0	4	196	0	0	0	173	30	0	433
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	190	0	14	0	26	1582	0	0	0	1719	209	0	3740
					93.14%	0.00%	6.86%	0.00%	1.62%	98.38%	0.00%	0.00%	0.00%	89.16%	10.84%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	86	0	6	0	11	813	0	0	0	885	109	0	1910
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.796	0.000	0.500	0.000	0.550	0.932	0.000	0.000	0.000	0.958	0.779	0.000	0.989
							0.821			0.936				0.956			

National Data & Surveying Services

Intersection Turning Movement Count

Location: N J St & W 5th St
City: San Bernardino
Control: Signalized

Project ID: 20-06038-004
Date: 3/5/2020

Bikes

NS/EW Streets:	N J St				N J St				W 5th St				W 5th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: N J St & W 5th St
City: San Bernardino

Project ID: 20-06038-004
Date: 3/5/2020

Pedestrians (Crosswalks)

NS/EW Streets:	N J St		N J St		W 5th St		W 5th St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	1	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	1	1	0	0	0	0	0	0	2
8:00 AM	0	3	0	0	0	0	0	1	4
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	2	2
8:45 AM	0	1	0	0	0	0	0	0	1
TOTAL VOLUMES :	EB 1	WB 6	EB 0	WB 0	NB 0	SB 0	NB 0	SB 4	TOTAL 11
APPROACH %'s :	14.29%	85.71%					0.00%	100.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	1	4	0	0	0	0	0	2	7
PEAK HR FACTOR :	0.250	0.333					0.500	0.500	0.438
	0.417						0.500		

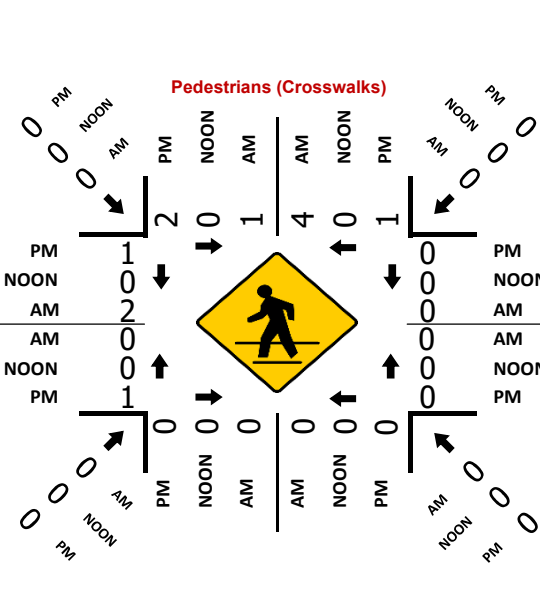
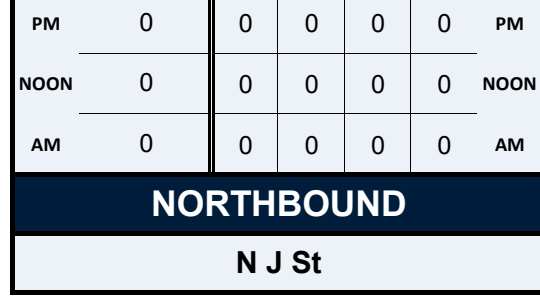
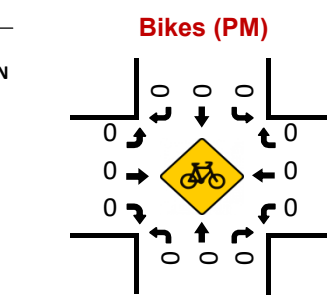
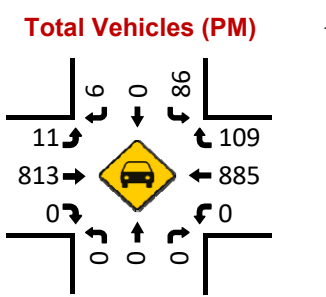
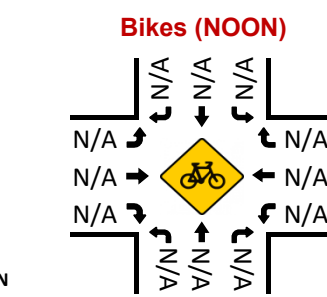
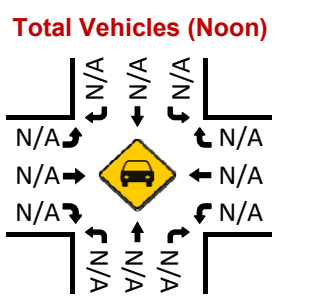
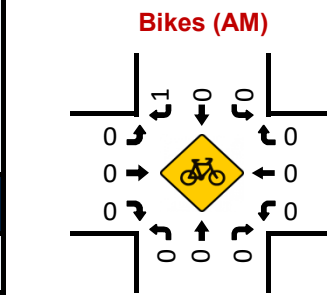
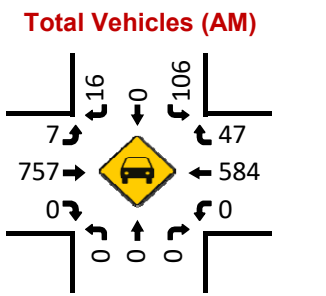
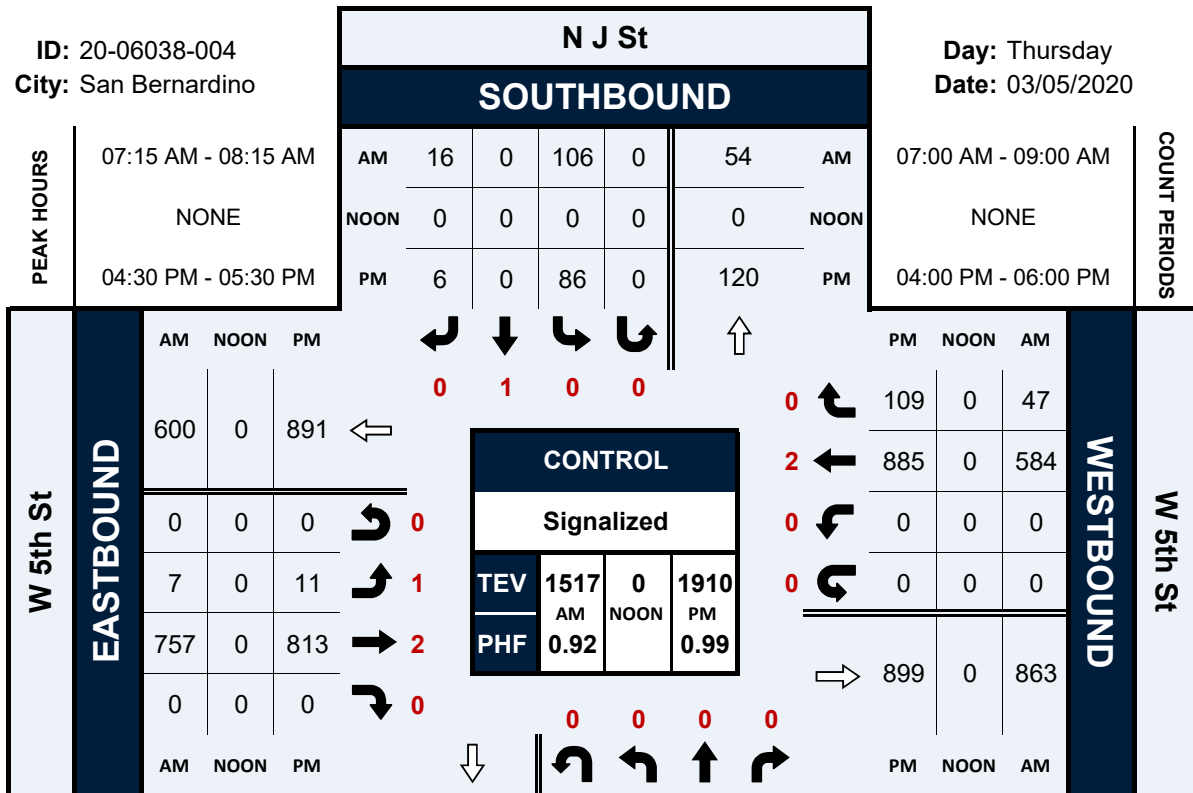
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	3	0	0	0	0	0	1	4
4:15 PM	0	2	0	0	0	0	1	0	3
4:30 PM	2	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	1	2
5:15 PM	0	1	0	0	0	0	0	0	1
5:30 PM	0	1	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	2	2
TOTAL VOLUMES :	EB 2	WB 7	EB 0	WB 0	NB 0	SB 0	NB 2	SB 4	TOTAL 15
APPROACH %'s :	22.22%	77.78%					33.33%	66.67%	
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	2	1	0	0	0	0	1	1	5
PEAK HR FACTOR :	0.250	0.250					0.250	0.250	0.625
	0.375						0.250		

N J St & W 5th St

Peak Hour Turning Movement Count

ID: 20-06038-004
City: San Bernardino

Day: Thursday
Date: 03/05/2020



National Data & Surveying Services

Intersection Turning Movement Count

Location: I-215 SB Ramps & W 5th St
 City: San Bernardino
 Control: Signalized

Project ID: 20-06038-005
 Date: 3/5/2020

Total

NS/EW Streets:	I-215 SB Ramps				I-215 SB Ramps				W 5th St				W 5th St				TOTAL	
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
7:00 AM	0	0	0	0	134	0	29	0	0	96	81	0	96	116	0	0	552	
7:15 AM	0	0	0	0	174	0	36	0	0	109	114	0	99	102	0	0	634	
7:30 AM	0	0	0	0	136	1	42	0	0	146	101	0	96	115	0	0	637	
7:45 AM	0	0	0	0	187	1	42	0	0	133	87	0	75	113	0	0	638	
8:00 AM	0	0	0	0	151	10	49	0	0	96	61	0	69	122	0	0	558	
8:15 AM	0	0	0	0	130	0	51	0	0	122	76	0	66	106	0	0	551	
8:30 AM	0	0	0	0	109	0	42	0	0	113	73	0	74	119	0	0	530	
8:45 AM	0	0	0	0	111	0	45	0	0	114	95	0	89	106	0	0	560	
TOTAL VOLUMES :	0	0	0	0	1132	12	336	0	0	929	688	0	664	899	0	0	4660	
APPROACH %'s :					76.49%	0.81%	22.70%	0.00%	0.00%	57.45%	42.55%	0.00%	42.48%	57.52%	0.00%	0.00%		
PEAK HR :	07:15 AM - 08:15 AM																TOTAL	
PEAK HR VOL :	0	0	0	0	648	12	169	0	0	484	363	0	339	452	0	0	2467	
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.866	0.300	0.862	0.000	0.000	0.829	0.796	0.000	0.856	0.926	0.000	0.000	0.967	
					0.901					0.857				0.937				
PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
4:00 PM	0	0	0	0	61	0	50	0	0	113	73	0	106	215	0	0	618	
4:15 PM	0	0	0	0	66	1	44	0	0	133	83	0	103	198	0	0	628	
4:30 PM	0	0	0	0	72	1	39	0	0	175	73	0	107	191	0	0	658	
4:45 PM	0	0	0	0	53	2	47	0	0	130	81	0	112	211	0	0	636	
5:00 PM	0	0	0	0	49	2	49	0	0	117	94	0	140	216	0	0	667	
5:15 PM	0	0	0	0	65	0	38	0	0	155	75	0	122	200	0	0	655	
5:30 PM	0	0	0	0	57	0	38	0	0	156	83	0	118	187	0	0	639	
5:45 PM	0	0	0	0	68	0	41	0	0	149	80	0	97	170	0	0	605	
TOTAL VOLUMES :	0	0	0	0	491	6	346	0	0	1128	642	0	905	1588	0	0	5106	
APPROACH %'s :					58.24%	0.71%	41.04%	0.00%	0.00%	63.73%	36.27%	0.00%	36.30%	63.70%	0.00%	0.00%		
PEAK HR :	04:30 PM - 05:30 PM																TOTAL	
PEAK HR VOL :	0	0	0	0	239	5	173	0	0	577	323	0	481	818	0	0	2616	
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.830	0.625	0.883	0.000	0.000	0.824	0.859	0.000	0.859	0.947	0.000	0.000	0.981	
					0.931					0.907				0.912				

National Data & Surveying Services

Intersection Turning Movement Count

Location: I-215 SB Ramps & W 5th St
City: San Bernardino
Control: Signalized

Project ID: 20-06038-005
Date: 3/5/2020

Bikes

NS/EW Streets:	I-215 SB Ramps				I-215 SB Ramps				W 5th St				W 5th St					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0	0	0	0	1.3	0.3	1.3	0	0	4	0	0	2	2	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL	
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0	0	0	0	1.3	0.3	1.3	0	0	4	0	0	2	2	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0		
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL	
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: I-215 SB Ramps & W 5th St
City: San Bernardino

Project ID: 20-06038-005
Date: 3/5/2020

Pedestrians (Crosswalks)

NS/EW Streets:	I-215 SB Ramps		I-215 SB Ramps		W 5th St		W 5th St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	1	1
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	1	1	0	0	0	0	0	0	2
8:15 AM	0	1	0	0	0	0	0	0	1
8:30 AM	0	1	0	0	0	0	0	0	1
8:45 AM	0	1	0	0	0	0	0	0	1
TOTAL VOLUMES :	EB 1	WB 4	EB 0	WB 0	NB 0	SB 0	NB 0	SB 1	TOTAL 6
APPROACH %'s :	20.00%	80.00%					0.00%	100.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	1	1	0	0	0	0	0	1	3
PEAK HR FACTOR :	0.250	0.250						0.250	0.375

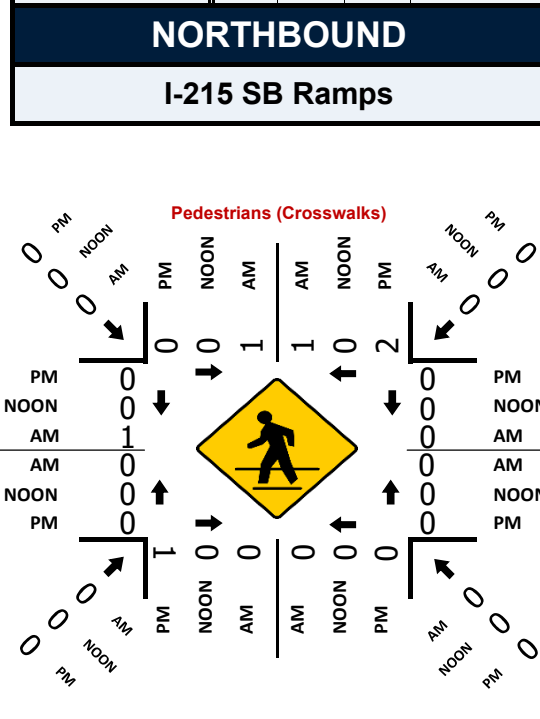
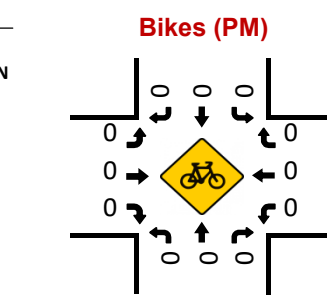
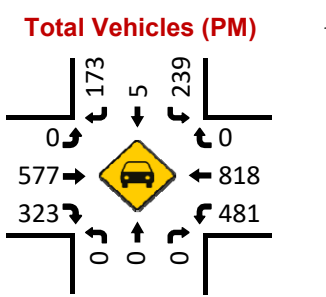
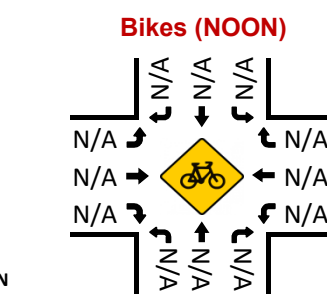
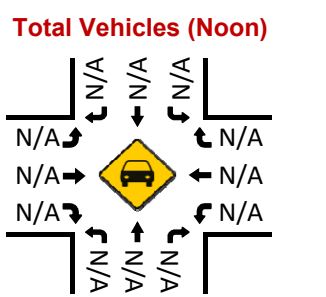
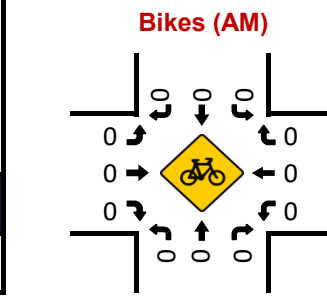
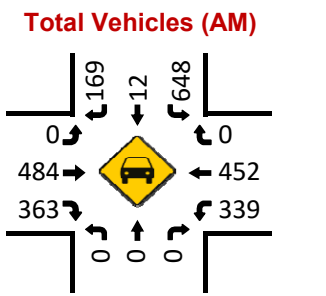
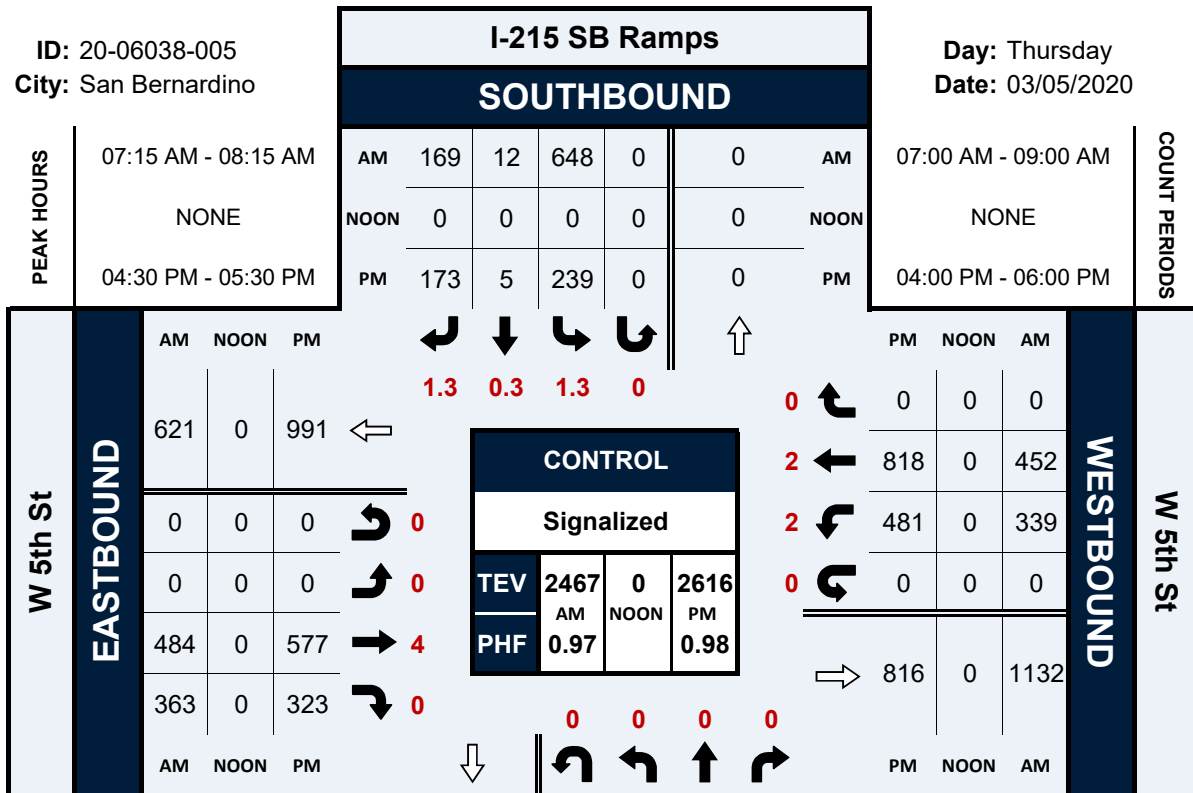
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	2	0	0	0	0	0	0	2
4:15 PM	0	1	0	0	0	0	0	0	1
4:30 PM	0	1	1	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	1
5:30 PM	0	1	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB 0	WB 6	EB 1	WB 0	NB 0	SB 0	NB 0	SB 0	TOTAL 7
APPROACH %'s :	0.00%	100.00%	100.00%	0.00%					
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	0	2	1	0	0	0	0	0	3
PEAK HR FACTOR :	0.500	0.500	0.250	0.250					0.375

I-215 SB Ramps & W 5th St

Peak Hour Turning Movement Count

ID: 20-06038-005
City: San Bernardino

Day: Thursday
Date: 03/05/2020



National Data & Surveying Services

Intersection Turning Movement Count

Location: I-215 NB Ramps & W 5th St
 City: San Bernardino
 Control: Signalized

Project ID: 20-06038-006
 Date: 3/5/2020

Total

NS/EW Streets:	I-215 NB Ramps				I-215 NB Ramps				W 5th St				W 5th St				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1.3	0.3	1.3	0	0	0	0	0	2	2	0	0	0	4	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	80	0	103	0	0	0	0	0	41	199	0	0	0	128	56	0	607
7:15 AM	59	0	120	0	0	0	0	0	41	228	0	0	0	147	55	0	650
7:30 AM	52	0	122	0	0	0	0	0	40	257	0	0	0	151	40	0	662
7:45 AM	52	1	160	0	0	0	0	0	39	274	0	0	0	141	43	0	710
8:00 AM	69	1	147	0	0	0	0	0	31	213	0	0	0	122	50	0	633
8:15 AM	59	2	132	0	0	0	0	0	34	224	0	0	0	113	42	0	606
8:30 AM	60	0	123	0	0	0	0	0	43	170	0	0	0	133	49	0	578
8:45 AM	50	0	115	0	0	0	0	0	42	191	0	0	0	145	51	0	594
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	481	4	1022	0	0	0	0	0	311	1756	0	0	0	1080	386	0	5040
	31.92%	0.27%	67.82%	0.00%					15.05%	84.95%	0.00%	0.00%	0.00%	73.67%	26.33%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	232	2	549	0	0	0	0	0	151	972	0	0	0	561	188	0	2655
PEAK HR FACTOR :	0.841	0.500	0.858	0.000	0.000	0.000	0.000	0.000	0.921	0.887	0.000	0.000	0.000	0.929	0.855	0.000	0.935
		0.902								0.897				0.927			
PM	1.3	0.3	1.3	0	0	0	0	0	2	2	0	0	0	4	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	103	2	146	0	0	0	0	0	35	144	0	0	0	217	164	0	811
4:15 PM	92	1	131	0	0	0	0	0	43	160	0	0	0	205	139	0	771
4:30 PM	99	0	121	0	0	0	0	0	69	171	0	0	0	205	152	0	817
4:45 PM	90	0	101	0	0	0	0	0	44	136	0	0	0	230	156	0	757
5:00 PM	99	2	101	0	0	0	0	0	48	127	0	0	0	261	186	0	824
5:15 PM	76	0	101	0	0	0	0	0	43	169	0	0	0	246	165	0	800
5:30 PM	89	0	108	0	0	0	0	0	54	161	0	0	0	216	135	0	763
5:45 PM	70	3	127	0	0	0	0	0	39	181	0	0	0	197	133	0	750
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	718	8	936	0	0	0	0	0	375	1249	0	0	0	1777	1230	0	6293
	43.20%	0.48%	56.32%	0.00%					23.09%	76.91%	0.00%	0.00%	0.00%	59.10%	40.90%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	364	2	424	0	0	0	0	0	204	603	0	0	0	942	659	0	3198
PEAK HR FACTOR :	0.919	0.250	0.876	0.000	0.000	0.000	0.000	0.000	0.739	0.882	0.000	0.000	0.000	0.902	0.886	0.000	0.970
		0.898								0.841				0.895			

National Data & Surveying Services

Intersection Turning Movement Count

Location: I-215 NB Ramps & W 5th St
City: San Bernardino
Control: Signalized

Project ID: 20-06038-006
Date: 3/5/2020

Bikes

NS/EW Streets:	I-215 NB Ramps				I-215 NB Ramps				W 5th St				W 5th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.3	0.3	1.3	0	0	0	0	0	2	2	0	0	0	4	1	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.3	0.3	1.3	0	0	0	0	0	2	2	0	0	0	4	1	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250

National Data & Surveying Services

Intersection Turning Movement Count

Location: I-215 NB Ramps & W 5th St
City: San Bernardino

Project ID: 20-06038-006
Date: 3/5/2020

Pedestrians (Crosswalks)

NS/EW Streets:	I-215 NB Ramps		I-215 NB Ramps		W 5th St		W 5th St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	1	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	3	0	0	0	0	0	0	3
8:00 AM	1	1	0	0	0	0	0	0	2
8:15 AM	0	1	0	0	0	0	0	0	1
8:30 AM	0	2	0	0	0	0	0	0	2
8:45 AM	0	1	0	0	0	0	0	0	1
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	2	8	0	0	0	0	0	0	10
	20.00%	80.00%							
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	1	4	0	0	0	0	0	0	5
PEAK HR FACTOR :	0.250	0.333							0.417
	0.417								

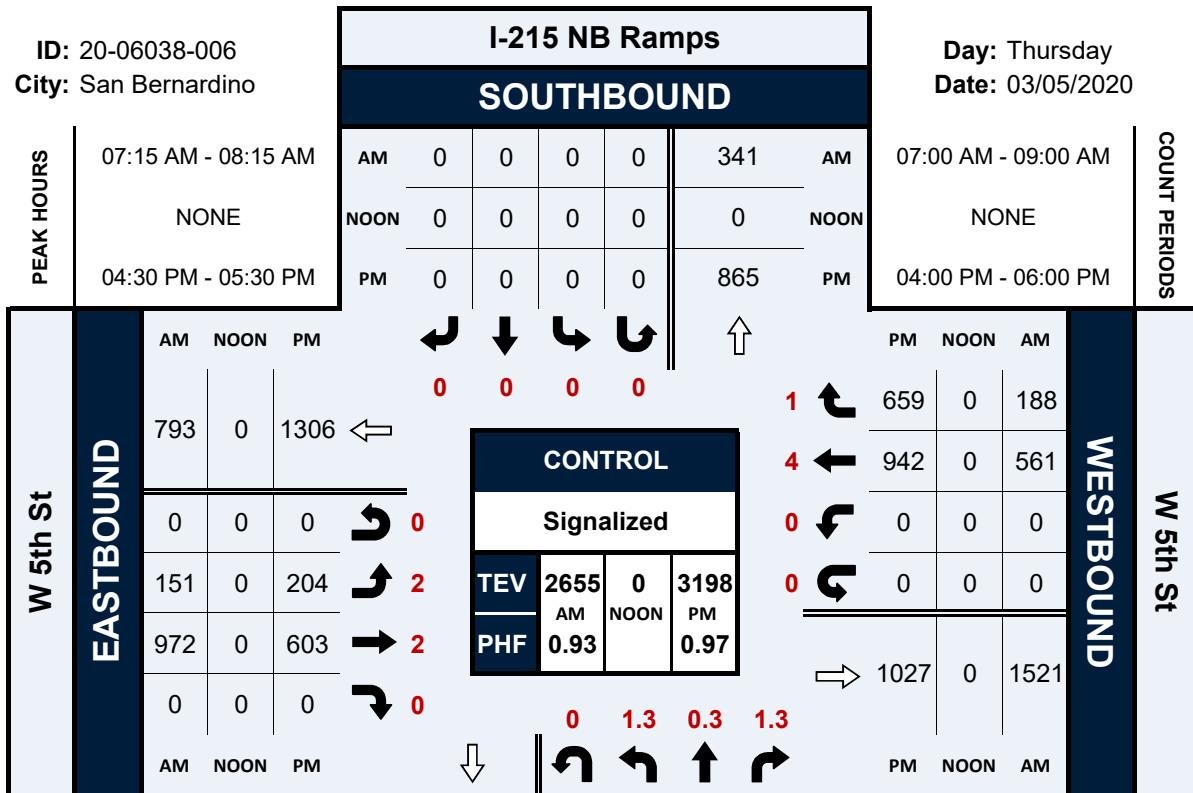
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	2	0	0	0	0	0	0	2
4:15 PM	0	1	0	0	0	0	0	0	1
4:30 PM	1	0	1	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	1
5:30 PM	0	1	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	1	5	1	0	0	0	0	0	7
	16.67%	83.33%	100.00%	0.00%					
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	1	1	1	0	0	0	0	0	3
PEAK HR FACTOR :	0.250	0.250	0.250	0.250					0.375
	0.500								

I-215 NB Ramps & W 5th St

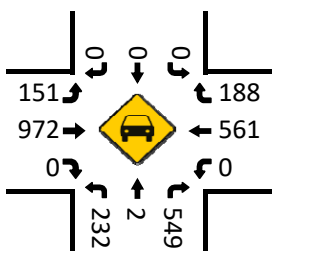
Peak Hour Turning Movement Count

ID: 20-06038-006
City: San Bernardino

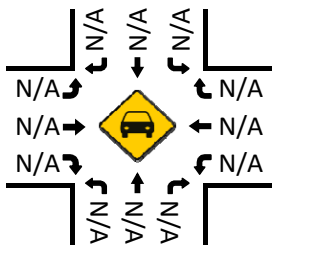
Day: Thursday
Date: 03/05/2020



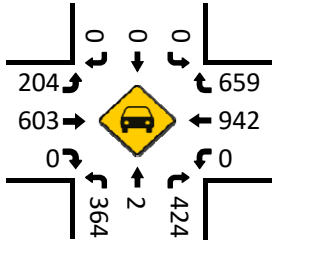
Total Vehicles (AM)



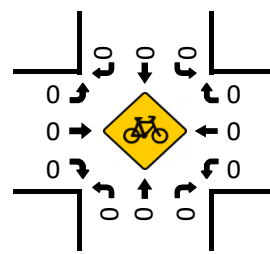
Total Vehicles (Noon)



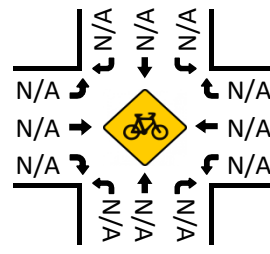
Total Vehicles (PM)



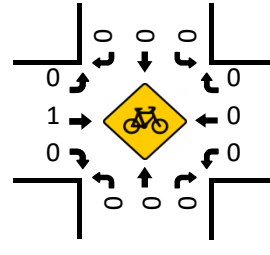
Bikes (AM)



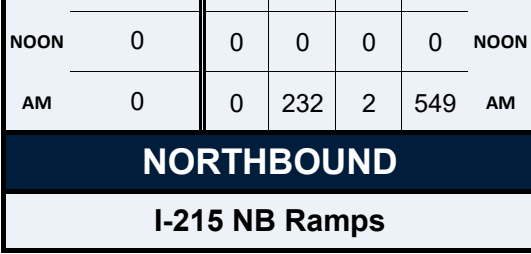
Bikes (NOON)



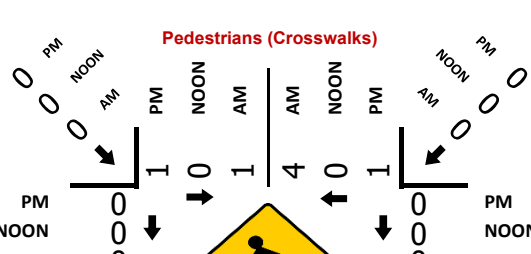
Bikes (PM)



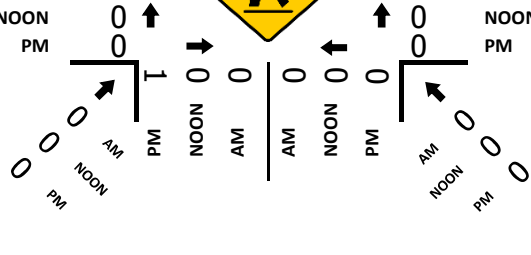
Total Vehicles (AM)



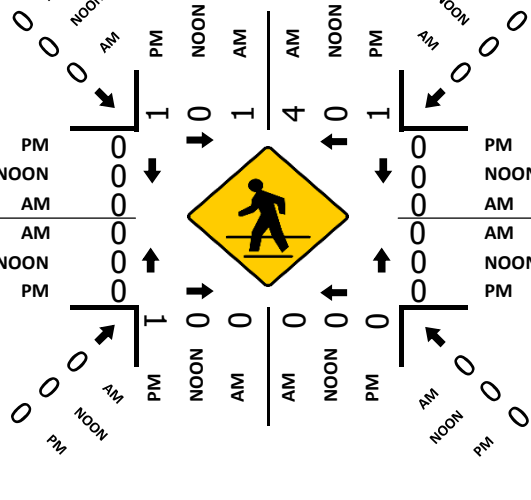
Total Vehicles (Noon)



Total Vehicles (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services

Intersection Turning Movement Count

Location: H St & W 5th St
 City: San Bernardino
 Control: Signalized

Project ID: 20-06038-007
 Date: 3/5/2020

Total

NS/EW Streets:	H St				H St				W 5th St				W 5th St				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	2 ET	1 ER	0 EU	1 WL	2 WT	0 WR	0 WU	TOTAL
7:00 AM	6	8	2	0	2	10	51	0	16	270	9	0	0	122	2	0	498
7:15 AM	7	15	0	0	5	21	42	0	20	313	23	0	0	162	3	0	611
7:30 AM	11	18	1	0	8	30	46	0	24	328	30	0	1	124	5	0	626
7:45 AM	16	22	3	0	12	36	33	0	31	367	33	0	1	135	7	0	696
8:00 AM	14	12	4	0	5	16	33	0	26	317	17	0	0	128	6	0	578
8:15 AM	4	15	3	0	1	17	36	0	34	284	24	0	1	110	4	0	533
8:30 AM	15	17	7	0	8	20	39	0	36	252	17	0	3	130	6	0	550
8:45 AM	5	15	1	0	7	19	51	0	29	251	23	0	3	144	4	0	552
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	78	122	21	0	48	169	331	0	216	2382	176	0	9	1055	37	0	4644
	35.29%	55.20%	9.50%	0.00%	8.76%	30.84%	60.40%	0.00%	7.79%	85.87%	6.34%	0.00%	0.82%	95.82%	3.36%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	48	67	8	0	30	103	154	0	101	1325	103	0	2	549	21	0	2511
PEAK HR FACTOR :	0.750	0.761	0.500	0.000	0.625	0.715	0.837	0.000	0.815	0.903	0.780	0.000	0.500	0.847	0.750	0.000	0.902
	0.750				0.854				0.887				0.867				
PM	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	2 ET	1 ER	0 EU	1 WL	2 WT	0 WR	0 WU	TOTAL
4:00 PM	47	45	9	0	7	18	66	0	60	220	10	0	2	262	11	0	757
4:15 PM	42	37	8	0	5	28	60	0	58	210	20	0	3	244	16	0	731
4:30 PM	53	49	6	0	4	18	82	0	65	208	22	0	2	225	15	0	749
4:45 PM	38	34	9	0	7	24	80	0	39	176	20	0	0	264	7	0	698
5:00 PM	65	47	15	0	3	15	78	0	46	173	18	0	1	306	8	0	775
5:15 PM	53	38	6	0	7	20	72	0	40	200	22	0	2	283	14	0	757
5:30 PM	53	41	5	0	3	21	64	0	41	199	25	0	2	241	7	0	702
5:45 PM	36	30	7	0	13	17	56	0	45	245	22	0	3	232	13	0	719
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	387	321	65	0	49	161	558	0	394	1631	159	0	15	2057	91	0	5888
	50.06%	41.53%	8.41%	0.00%	6.38%	20.96%	72.66%	0.00%	18.04%	74.68%	7.28%	0.00%	0.69%	95.10%	4.21%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	209	168	36	0	21	77	312	0	190	757	82	0	5	1078	44	0	2979
PEAK HR FACTOR :	0.804	0.857	0.600	0.000	0.750	0.802	0.951	0.000	0.731	0.910	0.932	0.000	0.625	0.881	0.733	0.000	0.961
	0.813				0.923				0.872				0.894				

National Data & Surveying Services

Intersection Turning Movement Count

Location: H St & W 5th St
City: San Bernardino
Control: Signalized

Project ID: 20-06038-007
Date: 3/5/2020

Bikes

NS/EW Streets:	H St				H St				W 5th St				W 5th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	2 ET	1 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	0.00%	100.00%	0.00%	0.00%													
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	2 ET	1 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	3
	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250

National Data & Surveying Services

Intersection Turning Movement Count

Location: H St & W 5th St
City: San Bernardino

Project ID: 20-06038-007
Date: 3/5/2020

Pedestrians (Crosswalks)

NS/EW Streets:	H St		H St		W 5th St		W 5th St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	1	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	1	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	1	0	3
8:00 AM	1	1	0	0	1	1	0	0	4
8:15 AM	0	0	0	0	0	0	0	1	1
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	3	0	3
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	2	2	0	0	2	2	4	1	13
	50.00%	50.00%			50.00%	50.00%	80.00%	20.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	1	2	0	0	2	2	1	0	8
PEAK HR FACTOR :	0.250	0.500			0.500	0.500	0.250		0.500
	0.375				0.500		0.250		

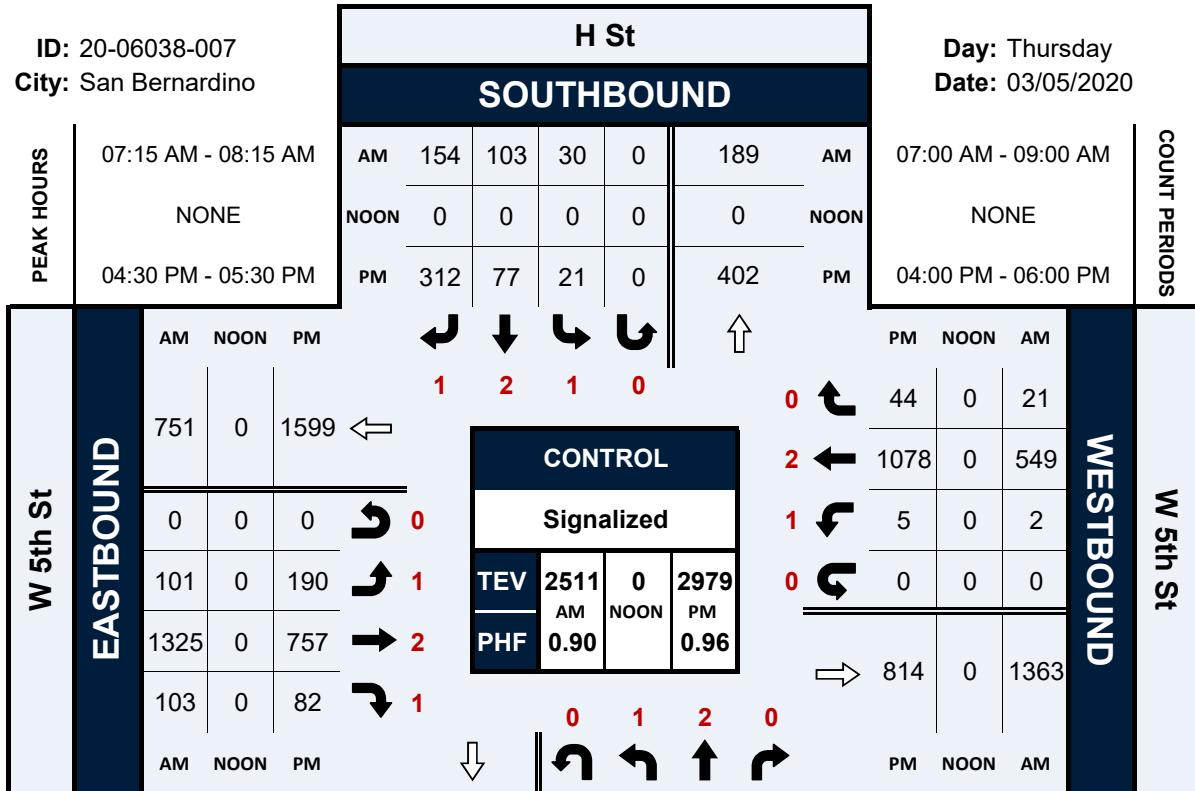
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	1	2	0	0	0	0	0	0	3
4:15 PM	0	0	1	0	0	1	0	0	2
4:30 PM	2	1	0	0	0	1	1	0	5
4:45 PM	0	0	0	0	2	0	0	1	3
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	2	5	0	7	1	0	0	15
5:30 PM	0	1	0	0	1	2	1	0	5
5:45 PM	0	0	0	0	2	0	0	0	2
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	3	6	6	0	12	5	2	1	35
	33.33%	66.67%	100.00%	0.00%	70.59%	29.41%	66.67%	33.33%	
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	2	3	5	0	9	2	1	1	23
PEAK HR FACTOR :	0.250	0.375	0.250		0.321	0.500	0.250	0.250	0.383
	0.417		0.250		0.344		0.500		

H St & W 5th St

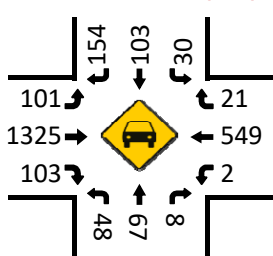
Peak Hour Turning Movement Count

ID: 20-06038-007
City: San Bernardino

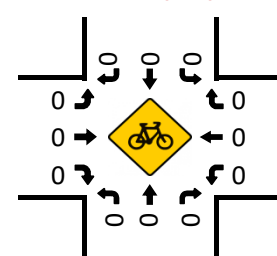
Day: Thursday
Date: 03/05/2020



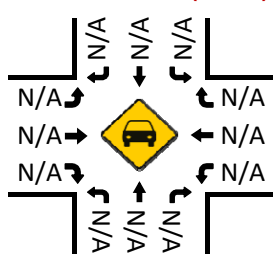
Total Vehicles (AM)



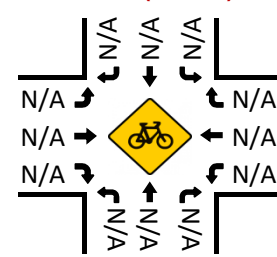
Bikes (AM)



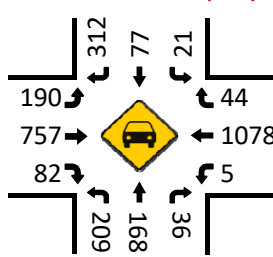
Total Vehicles (Noon)



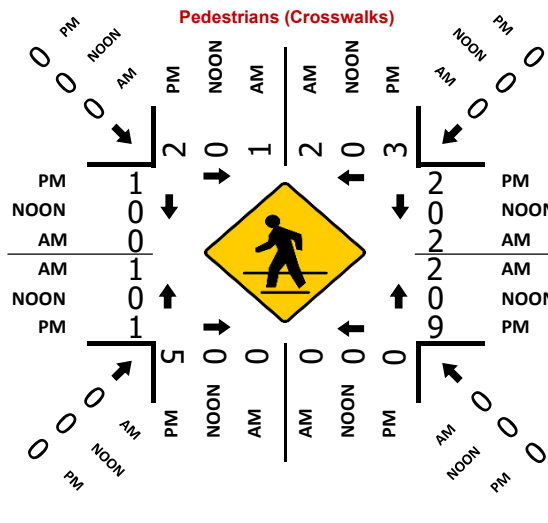
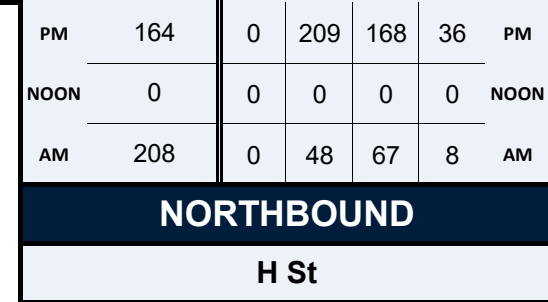
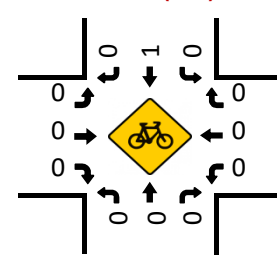
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: N G St & W 5th St
 City: San Bernardino
 Control: Signalized

Project ID: 20-06038-008
 Date: 3/5/2020

Total

NS/EW Streets:	N G St				N G St				W 5th St				W 5th St				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	2	0	0	0	2	0	0	1	2	0	0	1	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	2	0	0	9	7	6	0	15	248	5	0	0	136	10	0	438
7:15 AM	1	4	1	0	9	22	10	0	14	307	2	0	2	137	3	0	512
7:30 AM	1	4	1	0	7	14	7	0	17	313	4	0	2	120	8	0	498
7:45 AM	2	9	1	0	11	17	12	0	16	361	8	0	2	127	9	0	575
8:00 AM	1	6	0	0	6	13	19	0	27	297	4	0	3	114	11	0	501
8:15 AM	1	7	0	0	4	14	13	0	26	262	2	0	1	108	4	0	442
8:30 AM	2	4	0	0	9	12	20	0	19	227	8	0	1	121	14	0	437
8:45 AM	2	7	2	0	13	13	16	0	26	232	10	0	5	130	9	0	465
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	10	43	5	0	68	112	103	0	160	2247	43	0	16	993	68	0	3868
	17.24%	74.14%	8.62%	0.00%	24.03%	39.58%	36.40%	0.00%	6.53%	91.71%	1.76%	0.00%	1.49%	92.20%	6.31%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	5	23	3	0	33	66	48	0	74	1278	18	0	9	498	31	0	2086
PEAK HR FACTOR :	0.625	0.639	0.750	0.000	0.750	0.750	0.632	0.000	0.685	0.885	0.563	0.000	0.750	0.909	0.705	0.000	0.907
			0.646				0.896				0.890				0.947		
PM	0	2	0	0	0	2	0	0	1	2	0	0	1	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	2	22	1	0	21	28	24	0	20	210	1	0	4	256	29	0	618
4:15 PM	2	12	1	0	20	17	29	0	28	178	8	0	5	227	18	0	545
4:30 PM	1	23	1	0	9	27	31	0	26	192	5	0	9	222	19	0	565
4:45 PM	3	29	4	0	21	27	17	0	20	173	3	0	3	252	25	0	577
5:00 PM	3	23	5	0	13	23	26	1	17	163	4	0	2	291	25	0	596
5:15 PM	4	23	1	0	18	28	23	1	24	173	8	0	4	253	28	0	588
5:30 PM	2	27	4	0	15	21	25	1	24	176	5	0	0	246	28	0	574
5:45 PM	7	22	5	0	13	16	20	0	33	212	14	0	3	212	18	0	575
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	24	181	22	0	130	187	195	3	192	1477	48	0	30	1959	190	0	4638
	10.57%	79.74%	9.69%	0.00%	25.24%	36.31%	37.86%	0.58%	11.18%	86.02%	2.80%	0.00%	1.38%	89.90%	8.72%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	12	102	14	0	67	99	91	3	85	685	20	0	9	1042	106	0	2335
PEAK HR FACTOR :	0.750	0.879	0.700	0.000	0.798	0.884	0.875	0.750	0.885	0.973	0.625	0.000	0.563	0.895	0.946	0.000	0.979
			0.889				0.929				0.963				0.910		

National Data & Surveying Services

Intersection Turning Movement Count

Location: N G St & W 5th St
 City: San Bernardino
 Control: Signalized

Project ID: 20-06038-008
 Date: 3/5/2020

Bikes

NS/EW Streets:	N G St				N G St				W 5th St				W 5th St								
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL				
		0	2	0	0	0	2	0	0	0	1	2	0	0	1	2		0	0		
		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR		WU			
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	
	8:00 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0		0	0	0	3
	8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0		0	0	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL				
APPROACH %'s :	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4				
	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.250				
PEAK HR :	07:15 AM - 08:15 AM																TOTAL				
PEAK HR VOL :	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3				
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL				
		0	2	0	0	0	2	0	0	1	2	0	0	1	2	0		0			
		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR		WU			
	4:00 PM	0	1	0	0	0	2	0	0	0	1	0	0	0	0	2		0	6		
	4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0		0	1		
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0		
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		0	1		
	5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0		0	2		
	5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		0	1		
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0		
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1				
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL				
APPROACH %'s :	0	3	0	0	0	4	0	0	0	1	0	0	0	0	4	0	12				
	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.500				
PEAK HR :	04:45 PM - 05:45 PM																TOTAL				
PEAK HR VOL :	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	0	4				
PEAK HR FACTOR :	0.00	0.500	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.500				

National Data & Surveying Services

Intersection Turning Movement Count

Location: N G St & W 5th St
City: San Bernardino

Project ID: 20-06038-008
Date: 3/5/2020

Pedestrians (Crosswalks)

NS/EW Streets:	N G St		N G St		W 5th St		W 5th St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	1	0	0	0	1	1	0	1	4
7:15 AM	0	0	0	0	1	1	0	0	2
7:30 AM	0	2	1	1	0	2	1	5	12
7:45 AM	2	0	0	0	1	4	1	2	10
8:00 AM	0	0	0	0	0	4	1	0	5
8:15 AM	1	1	1	0	2	3	1	2	11
8:30 AM	1	3	0	0	0	1	0	5	10
8:45 AM	0	0	0	0	0	0	0	1	1
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	5	6	2	1	5	16	4	16	55
	45.45%	54.55%	66.67%	33.33%	23.81%	76.19%	20.00%	80.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	2	2	1	1	2	11	3	7	29
PEAK HR FACTOR :	0.250	0.250	0.250	0.250	0.500	0.688	0.750	0.350	0.604
	0.500		0.250		0.650		0.417		

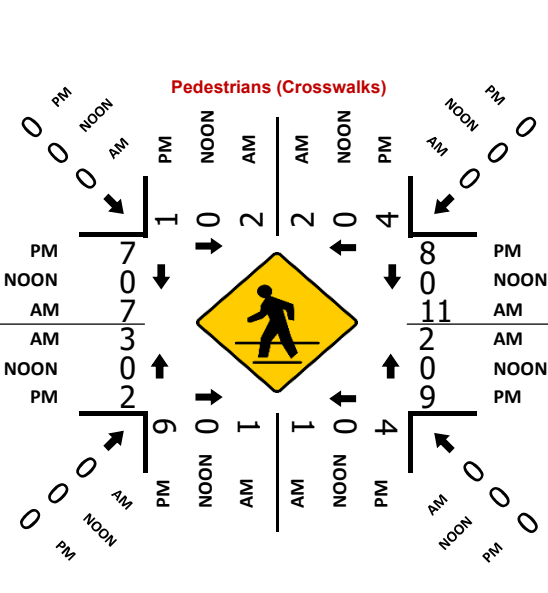
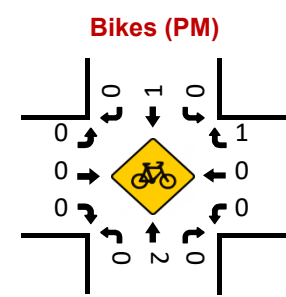
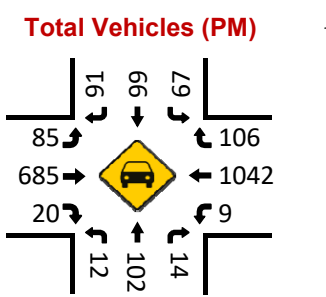
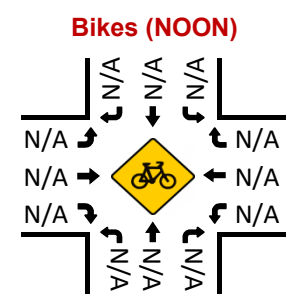
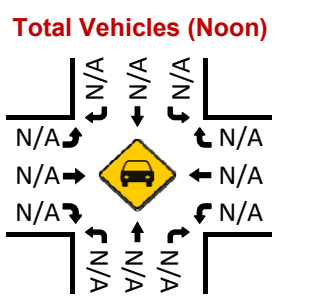
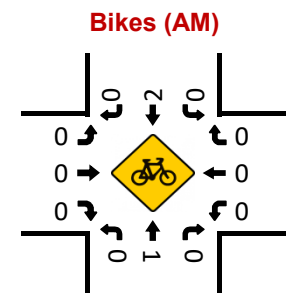
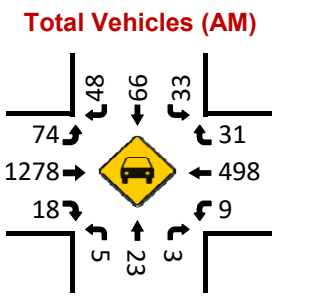
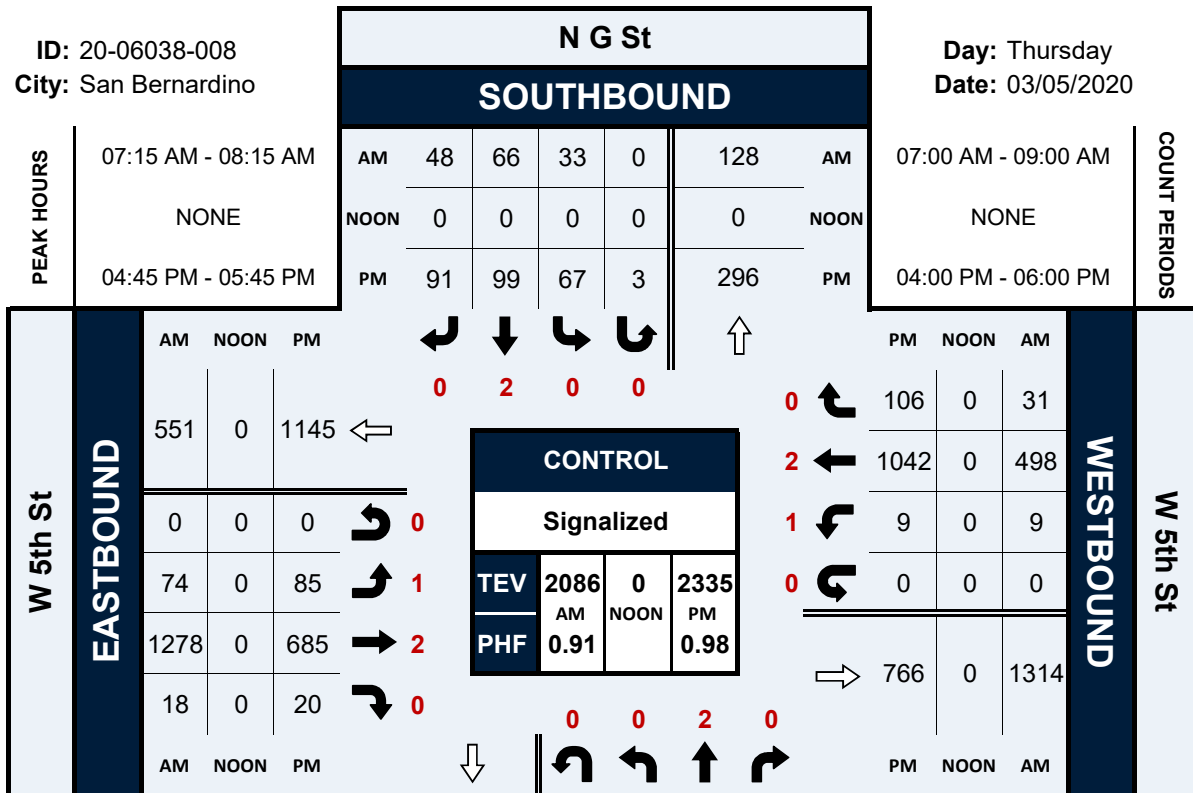
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	2	1	0	0	3	1	0	7
4:15 PM	2	0	0	1	0	2	1	4	10
4:30 PM	0	1	1	2	0	1	3	0	8
4:45 PM	0	0	3	1	0	1	0	2	7
5:00 PM	0	0	2	0	0	0	0	2	4
5:15 PM	1	3	0	0	4	1	0	3	12
5:30 PM	0	1	1	3	5	6	2	0	18
5:45 PM	0	0	0	0	1	3	2	0	6
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	3	7	8	7	10	17	9	11	72
	30.00%	70.00%	53.33%	46.67%	37.04%	62.96%	45.00%	55.00%	
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	1	4	6	4	9	8	2	7	41
PEAK HR FACTOR :	0.250	0.333	0.500	0.333	0.450	0.333	0.250	0.583	0.569
	0.313		0.625		0.386		0.750		

N G St & W 5th St

Peak Hour Turning Movement Count

ID: 20-06038-008
City: San Bernardino

Day: Thursday
Date: 03/05/2020



National Data & Surveying Services

Intersection Turning Movement Count

Location: N F St & W 5th St
 City: San Bernardino
 Control: Signalized

Project ID: 20-06038-009
 Date: 3/5/2020

Total

NS/EW Streets:	N F St				N F St				W 5th St				W 5th St				TOTAL	
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
7:00 AM	3	1	1	0	3	4	3	0	7	252	3	0	1	138	0	0	416	
7:15 AM	0	2	0	0	0	2	2	0	10	298	1	0	1	143	1	0	460	
7:30 AM	0	5	2	0	3	3	6	0	12	309	1	0	1	118	6	0	466	
7:45 AM	1	8	2	0	0	7	3	0	20	341	2	0	1	134	5	0	524	
8:00 AM	1	6	4	0	5	3	15	0	18	289	2	0	2	109	6	0	460	
8:15 AM	2	3	1	0	4	5	3	0	19	253	2	0	1	110	6	0	409	
8:30 AM	2	1	0	0	11	10	13	0	10	215	4	0	0	125	7	0	398	
8:45 AM	1	10	1	0	2	5	22	0	18	225	4	0	1	117	8	0	414	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	10	36	11	0	28	39	67	0	114	2182	19	0	8	994	39	0	3547	
	17.54%	63.16%	19.30%	0.00%	20.90%	29.10%	50.00%	0.00%	4.92%	94.25%	0.82%	0.00%	0.77%	95.49%	3.75%	0.00%		
PEAK HR :	07:15 AM - 08:15 AM																	TOTAL
PEAK HR VOL :	2	21	8	0	8	15	26	0	60	1237	6	0	5	504	18	0	1910	
PEAK HR FACTOR :	0.500	0.656	0.500	0.000	0.400	0.536	0.433	0.000	0.750	0.907	0.750	0.000	0.625	0.881	0.750	0.000	0.911	
		0.705				0.533				0.897				0.909				
PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
4:00 PM	4	6	2	0	3	6	25	0	21	210	6	0	6	261	0	1	551	
4:15 PM	4	13	4	0	3	7	19	0	15	171	7	0	4	226	10	0	483	
4:30 PM	6	8	9	0	8	11	25	0	16	181	6	0	4	241	5	0	520	
4:45 PM	1	14	8	0	1	11	10	0	14	176	9	0	6	251	5	0	506	
5:00 PM	8	7	6	0	4	11	13	0	14	149	11	0	4	304	4	0	535	
5:15 PM	6	8	5	0	3	18	15	0	14	173	3	0	2	252	8	0	507	
5:30 PM	6	5	2	0	7	13	21	0	27	163	6	0	1	257	7	0	515	
5:45 PM	8	12	2	0	5	10	16	1	25	198	5	0	3	209	6	0	500	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	43	73	38	0	34	87	144	1	146	1421	53	0	30	2001	45	1	4117	
	27.92%	47.40%	24.68%	0.00%	12.78%	32.71%	54.14%	0.38%	9.01%	87.72%	3.27%	0.00%	1.44%	96.34%	2.17%	0.05%		
PEAK HR :	04:30 PM - 05:30 PM																	TOTAL
PEAK HR VOL :	21	37	28	0	16	51	63	0	58	679	29	0	16	1048	22	0	2068	
PEAK HR FACTOR :	0.656	0.661	0.778	0.000	0.500	0.708	0.630	0.000	0.906	0.938	0.659	0.000	0.667	0.862	0.688	0.000	0.966	
		0.935				0.739				0.943				0.870				

National Data & Surveying Services

Intersection Turning Movement Count

Location: N F St & W 5th St
City: San Bernardino

Project ID: 20-06038-009
Date: 3/5/2020

Pedestrians (Crosswalks)

NS/EW Streets:	N F St		N F St		W 5th St		W 5th St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
	7:00 AM	2	0	1	0	0	0	0	3
	7:15 AM	0	0	0	0	1	1	2	5
	7:30 AM	0	1	1	1	2	1	0	8
	7:45 AM	1	3	0	0	1	1	0	8
	8:00 AM	0	3	0	0	1	0	3	7
	8:15 AM	2	2	1	0	0	0	1	8
	8:30 AM	3	0	0	0	0	0	2	5
	8:45 AM	1	1	0	3	0	0	2	8
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	9	10	3	4	5	3	13	5	52
	47.37%	52.63%	42.86%	57.14%	62.50%	37.50%	72.22%	27.78%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	1	7	1	1	5	3	8	2	28
PEAK HR FACTOR :	0.250	0.583	0.250	0.250	0.625	0.750	0.667	0.250	0.875
	0.500		0.250		0.667		0.833		

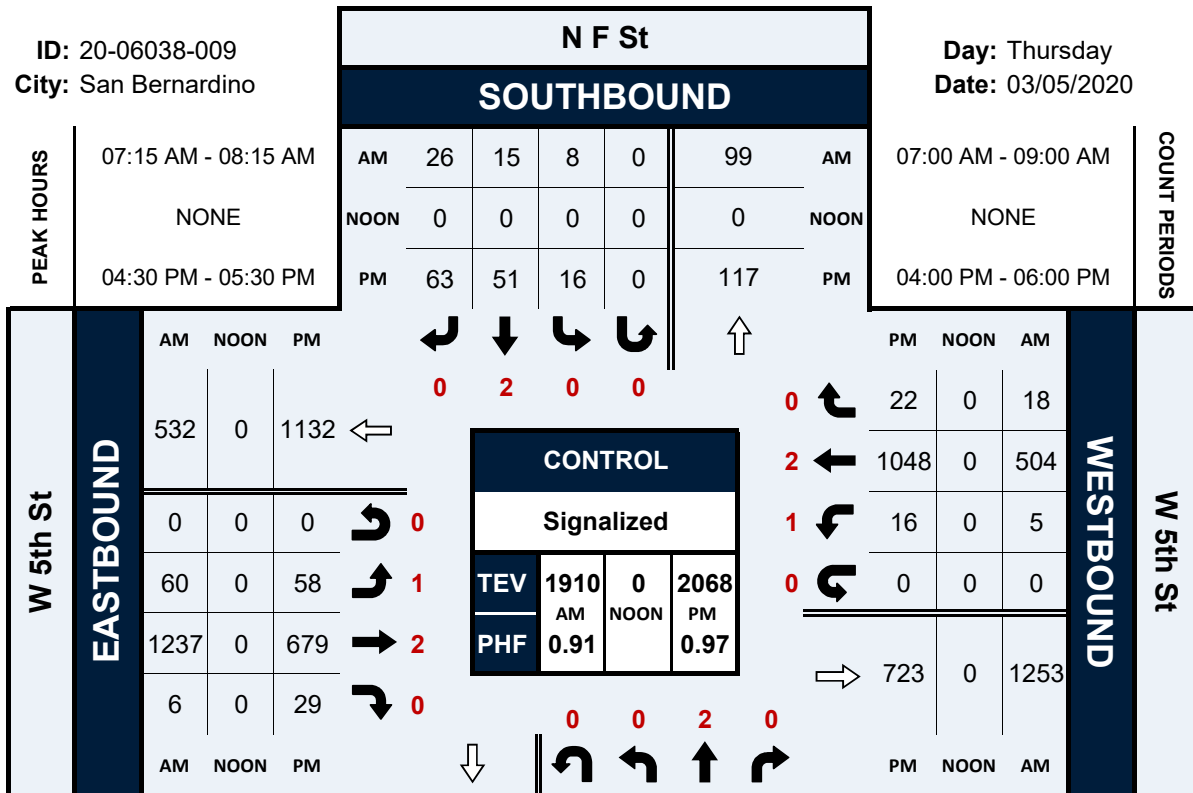
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	1	1	2	0	2	0	3	9
4:15 PM	0	0	0	0	0	1	0	3	4
4:30 PM	0	2	0	0	0	1	0	0	3
4:45 PM	1	1	0	2	1	0	0	1	6
5:00 PM	0	0	2	0	0	0	1	1	4
5:15 PM	0	4	0	1	0	1	3	0	9
5:30 PM	0	3	1	0	1	0	1	3	9
5:45 PM	0	0	1	0	0	4	3	3	11
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	1	11	5	5	2	9	8	14	55
	8.33%	91.67%	50.00%	50.00%	18.18%	81.82%	36.36%	63.64%	
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	1	7	2	3	1	2	4	2	22
PEAK HR FACTOR :	0.250	0.438	0.250	0.375	0.250	0.500	0.333	0.500	0.611
	0.500		0.625		0.750		0.500		

N F St & W 5th St

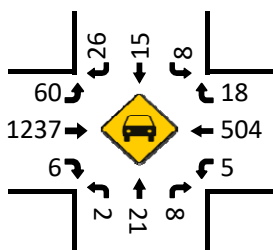
Peak Hour Turning Movement Count

ID: 20-06038-009
City: San Bernardino

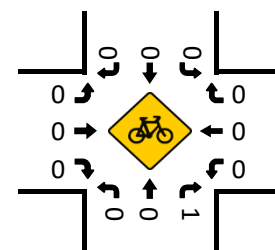
Day: Thursday
Date: 03/05/2020



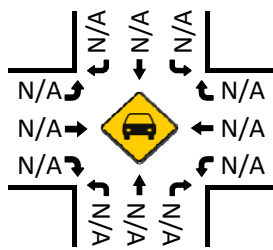
Total Vehicles (AM)



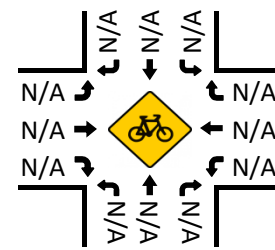
Bikes (AM)



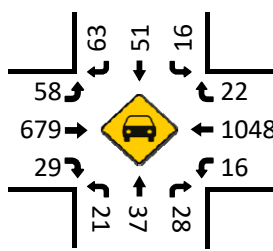
Total Vehicles (Noon)



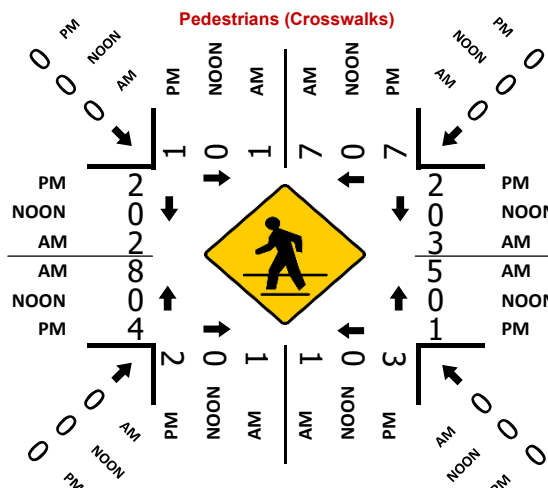
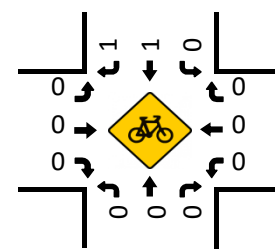
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: N E St & W 5th St
 City: San Bernardino
 Control: Signalized

Project ID: 20-06038-010
 Date: 3/5/2020

Total

NS/EW Streets:	N E St				N E St				W 5th St				W 5th St				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
7:00 AM	2	11	1	0	1	21	2	0	13	245	2	0	1	130	2	0	431
7:15 AM	2	25	4	0	8	26	7	0	17	283	4	0	11	141	5	0	533
7:30 AM	1	16	2	0	4	36	3	0	17	284	6	0	8	127	2	0	506
7:45 AM	4	30	8	0	14	44	7	0	17	304	11	0	3	121	2	0	565
8:00 AM	1	25	9	0	4	33	6	0	18	287	8	0	5	119	2	0	517
8:15 AM	10	25	4	0	3	21	4	0	10	237	11	0	7	104	1	0	437
8:30 AM	8	20	5	0	6	30	4	0	6	214	11	0	3	118	1	0	426
8:45 AM	7	29	9	0	6	32	9	1	10	202	9	0	8	102	6	0	430
TOTAL VOLUMES :	NL 35	NT 181	NR 42	NU 0	SL 46	ST 243	SR 42	SU 1	EL 108	ET 2056	ER 62	EU 0	WL 46	WT 962	WR 21	WU 0	TOTAL 3845
APPROACH %'s :	13.57%	70.16%	16.28%	0.00%	13.86%	73.19%	12.65%	0.30%	4.85%	92.36%	2.79%	0.00%	4.47%	93.49%	2.04%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL 2121
PEAK HR VOL :	8	96	23	0	30	139	23	0	69	1158	29	0	27	508	11	0	2121
PEAK HR FACTOR :	0.500	0.800	0.639	0.000	0.536	0.790	0.821	0.000	0.958	0.952	0.659	0.000	0.614	0.901	0.550	0.000	0.938
		0.756				0.738				0.946				0.869			
PM	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	TOTAL
4:00 PM	11	62	8	0	8	33	16	0	9	183	14	0	4	235	6	0	589
4:15 PM	18	51	12	0	7	42	9	0	3	153	11	0	6	224	4	0	540
4:30 PM	17	73	6	0	12	52	15	0	9	167	17	0	8	230	2	0	608
4:45 PM	20	71	7	0	7	48	13	0	9	173	7	0	8	225	5	0	593
5:00 PM	18	70	6	0	8	33	9	0	3	154	9	0	8	291	4	0	613
5:15 PM	18	73	8	0	5	42	9	0	11	155	10	0	11	228	5	0	575
5:30 PM	18	59	7	0	10	44	15	1	6	158	12	0	8	238	4	0	580
5:45 PM	10	68	4	0	2	50	7	0	8	190	10	0	6	192	6	0	553
TOTAL VOLUMES :	NL 130	NT 527	NR 58	NU 0	SL 59	ST 344	SR 93	SU 1	EL 58	ET 1333	ER 90	EU 0	WL 59	WT 1863	WR 36	WU 0	TOTAL 4651
APPROACH %'s :	18.18%	73.71%	8.11%	0.00%	11.87%	69.22%	18.71%	0.20%	3.92%	90.01%	6.08%	0.00%	3.01%	95.15%	1.84%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL 2389
PEAK HR VOL :	73	287	27	0	32	175	46	0	32	649	43	0	35	974	16	0	2389
PEAK HR FACTOR :	0.913	0.983	0.844	0.000	0.667	0.841	0.767	0.000	0.727	0.938	0.632	0.000	0.795	0.837	0.800	0.000	0.974
		0.977				0.801				0.938				0.846			

National Data & Surveying Services

Intersection Turning Movement Count

Location: N E St & W 5th St
City: San Bernardino

Project ID: 20-06038-010
Date: 3/5/2020

Pedestrians (Crosswalks)

NS/EW Streets:	N E St		N E St		W 5th St		W 5th St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	2	1	2	0	0	2	0	3	10
7:15 AM	0	1	0	1	0	0	1	0	3
7:30 AM	2	0	0	1	0	0	0	0	3
7:45 AM	1	2	3	0	2	1	0	3	12
8:00 AM	1	1	3	0	2	1	1	2	11
8:15 AM	0	1	2	1	1	1	2	0	8
8:30 AM	1	0	0	0	0	1	1	0	3
8:45 AM	1	1	0	2	0	1	1	2	8
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	8	7	10	5	5	7	6	10	58
	53.33%	46.67%	66.67%	33.33%	41.67%	58.33%	37.50%	62.50%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	4	4	6	2	4	2	2	5	29
PEAK HR FACTOR :	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.417	0.604
	0.667		0.667		0.500		0.583		

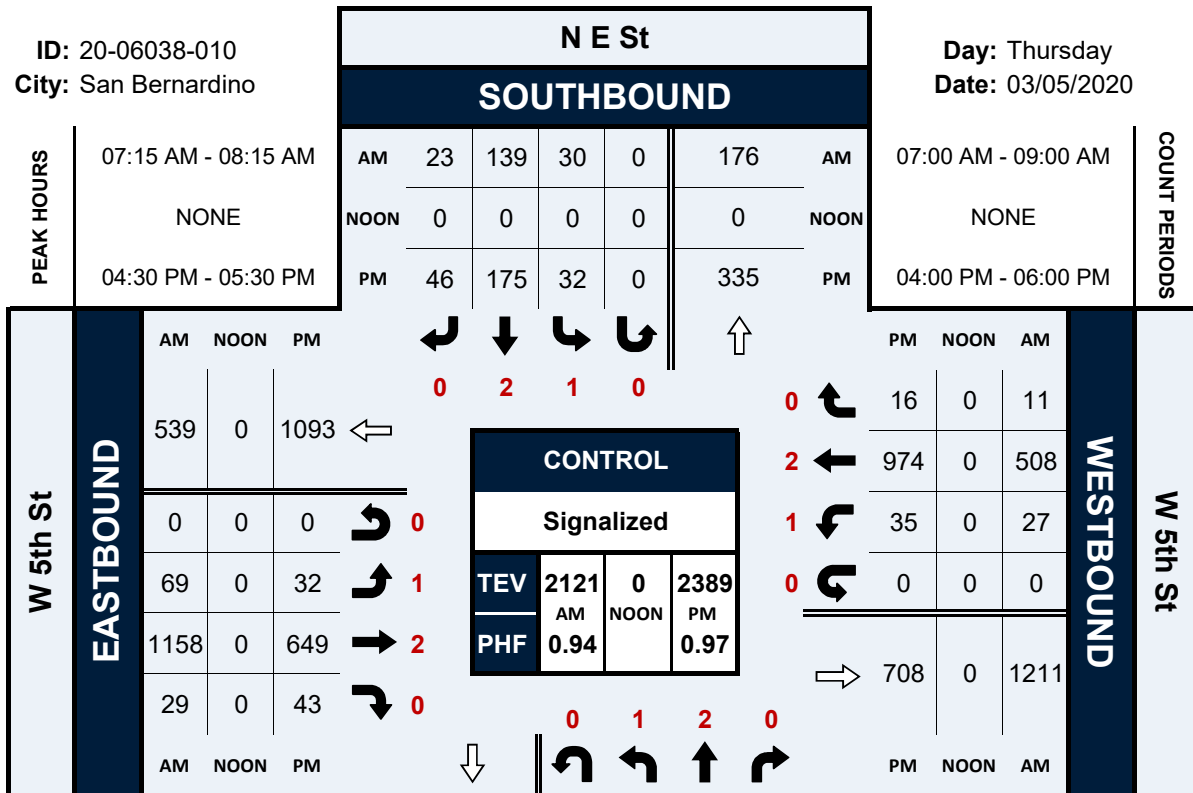
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	4	0	5	2	0	0	1	2	14
4:15 PM	1	4	3	1	6	1	1	1	18
4:30 PM	0	1	0	0	1	0	2	0	4
4:45 PM	1	0	0	1	0	1	2	0	5
5:00 PM	1	2	1	0	1	0	1	2	8
5:15 PM	1	0	1	0	0	0	4	2	8
5:30 PM	0	2	1	0	0	0	1	2	6
5:45 PM	1	0	1	0	0	2	2	2	8
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	9	9	12	4	8	4	14	11	71
	50.00%	50.00%	75.00%	25.00%	66.67%	33.33%	56.00%	44.00%	
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	3	3	2	1	2	1	9	4	25
PEAK HR FACTOR :	0.750	0.375	0.500	0.250	0.500	0.250	0.563	0.500	0.781
	0.500		0.750		0.750		0.542		

NE St & W 5th St

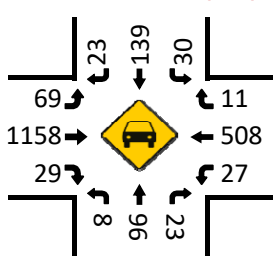
Peak Hour Turning Movement Count

ID: 20-06038-010
City: San Bernardino

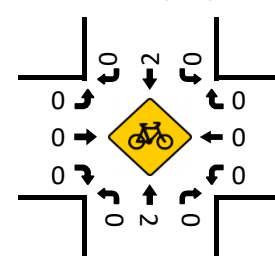
Day: Thursday
Date: 03/05/2020



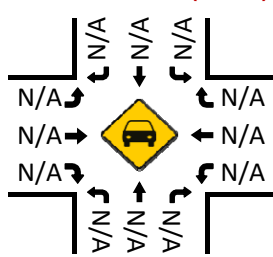
Total Vehicles (AM)



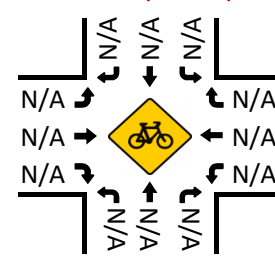
Bikes (AM)



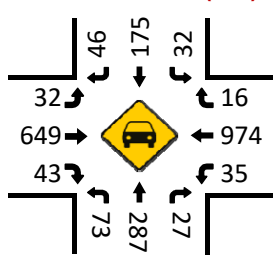
Total Vehicles (Noon)



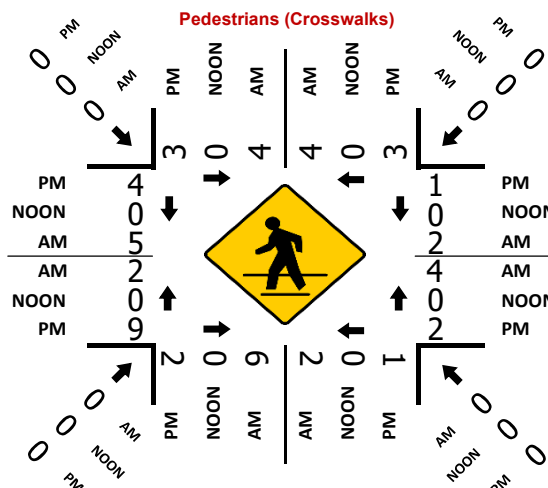
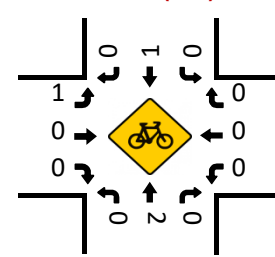
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: N D St & W 5th St
 City: San Bernardino
 Control: Signalized

Project ID: 20-06038-011
 Date: 3/5/2020

Total

NS/EW Streets:	N D St				N D St				W 5th St				W 5th St				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	TOTAL
7:00 AM	7	8	1	0	1	10	4	0	6	161	25	0	1	128	3	0	355
7:15 AM	5	6	2	0	5	14	6	0	5	244	18	0	5	148	9	0	467
7:30 AM	3	10	3	0	5	26	6	0	12	241	16	0	9	139	5	0	475
7:45 AM	7	15	7	0	7	31	2	0	15	258	21	0	7	125	10	0	505
8:00 AM	7	15	2	0	5	17	8	0	17	230	17	0	5	110	5	0	438
8:15 AM	7	13	5	0	3	22	11	0	14	195	15	0	1	90	5	0	381
8:30 AM	5	9	5	0	4	19	10	0	7	171	16	0	8	103	3	1	361
8:45 AM	13	16	8	0	6	26	6	0	18	172	22	0	4	101	10	0	402
TOTAL VOLUMES :	NL 54	NT 92	NR 33	NU 0	SL 36	ST 165	SR 53	SU 0	EL 94	ET 1672	ER 150	EU 0	WL 40	WT 944	WR 50	WU 1	TOTAL 3384
APPROACH %'s :	30.17%	51.40%	18.44%	0.00%	14.17%	64.96%	20.87%	0.00%	4.91%	87.27%	7.83%	0.00%	3.86%	91.21%	4.83%	0.10%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL 1885
PEAK HR VOL :	22	46	14	0	22	88	22	0	49	973	72	0	26	522	29	0	1885
PEAK HR FACTOR :	0.786	0.767	0.500	0.000	0.786	0.710	0.688	0.000	0.721	0.943	0.857	0.000	0.722	0.882	0.725	0.000	0.933
	0.707				0.825				0.930				0.890				
PM	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	TOTAL
4:00 PM	22	39	11	0	8	31	22	0	10	192	14	0	2	196	7	0	554
4:15 PM	19	38	6	0	12	30	12	0	14	153	12	0	5	184	7	0	492
4:30 PM	25	34	11	0	13	18	15	0	7	164	10	0	7	189	4	0	497
4:45 PM	35	34	9	0	13	33	18	0	23	168	15	0	7	173	17	0	545
5:00 PM	36	38	5	0	8	30	34	0	11	152	9	0	6	233	7	0	569
5:15 PM	25	35	4	0	6	24	19	0	19	149	12	0	6	184	6	0	489
5:30 PM	15	42	4	0	10	21	10	0	11	146	8	0	11	219	6	0	503
5:45 PM	13	25	6	0	6	18	16	0	12	167	12	1	8	166	11	0	461
TOTAL VOLUMES :	NL 190	NT 285	NR 56	NU 0	SL 76	ST 205	SR 146	SU 0	EL 107	ET 1291	ER 92	EU 1	WL 52	WT 1544	WR 65	WU 0	TOTAL 4110
APPROACH %'s :	35.78%	53.67%	10.55%	0.00%	17.80%	48.01%	34.19%	0.00%	7.18%	86.59%	6.17%	0.07%	3.13%	92.96%	3.91%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL 2106
PEAK HR VOL :	111	149	22	0	37	108	81	0	64	615	44	0	30	809	36	0	2106
PEAK HR FACTOR :	0.771	0.887	0.611	0.000	0.712	0.818	0.596	0.000	0.696	0.915	0.733	0.000	0.682	0.868	0.529	0.000	0.925
	0.892				0.785				0.877				0.889				

National Data & Surveying Services

Intersection Turning Movement Count

Location: N D St & W 5th St
 City: San Bernardino
 Control: Signalized

Project ID: 20-06038-011
 Date: 3/5/2020

Bikes

NS/EW Streets:	N D St				N D St				W 5th St				W 5th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	2	1	0	0	0	0	0	0	0	0	0	0	2	0	0	5
	0.00%	66.67%	33.33%	0.00%									0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
4:00 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	3
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1	0	1	0	3	0	0	0	2	1	0	0	0	0	0	8
	0.00%	50.00%	0.00%	50.00%	0.00%	100.00%	0.00%	0.00%	0.00%	66.67%	33.33%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.00	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250

National Data & Surveying Services

Intersection Turning Movement Count

Location: N D St & W 5th St
City: San Bernardino

Project ID: 20-06038-011
Date: 3/5/2020

Pedestrians (Crosswalks)

NS/EW Streets:	N D St		N D St		W 5th St		W 5th St			
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL	
	EB	WB	EB	WB	NB	SB	NB	SB		
	7:00 AM	0	1	0	5	2	2	2	2	14
	7:15 AM	1	6	2	0	1	0	0	5	15
	7:30 AM	1	1	0	0	0	1	1	1	5
	7:45 AM	1	2	2	1	0	0	1	1	8
	8:00 AM	1	1	1	2	1	1	1	0	8
	8:15 AM	1	1	1	1	1	2	1	1	9
	8:30 AM	2	1	3	0	1	0	1	0	8
	8:45 AM	2	0	0	2	0	0	1	2	7
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL	
APPROACH %'s :	40.91%	59.09%	45.00%	55.00%	50.00%	50.00%	40.00%	60.00%	74	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL	
PEAK HR VOL :	4	10	5	3	2	2	3	7	36	
PEAK HR FACTOR :	1.000	0.417	0.625	0.375	0.500	0.500	0.750	0.350	0.600	
	0.500		0.667		0.500		0.500			

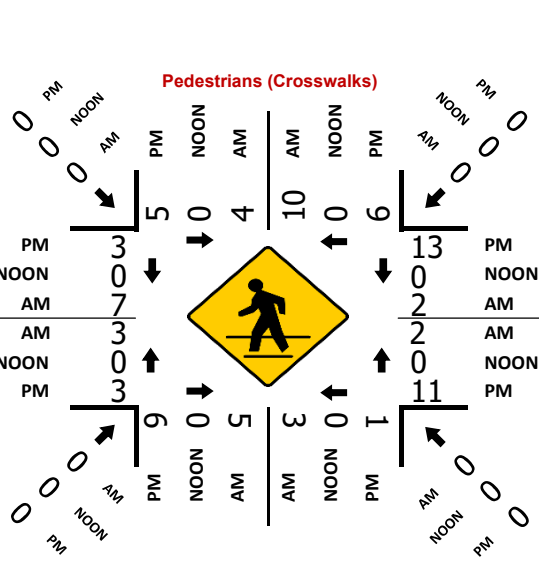
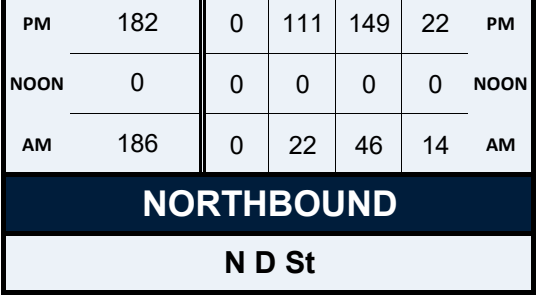
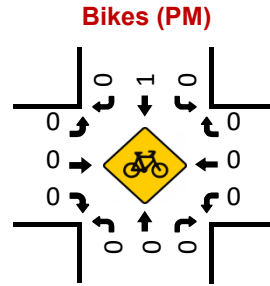
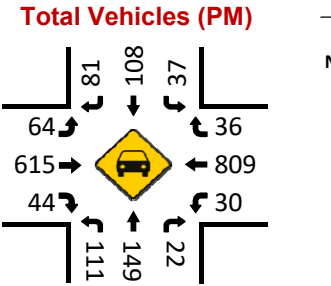
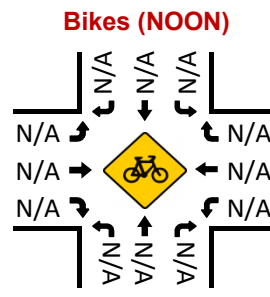
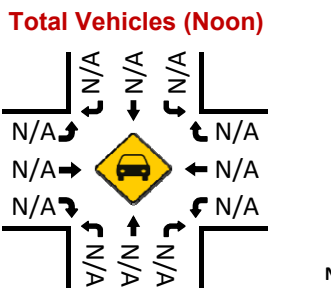
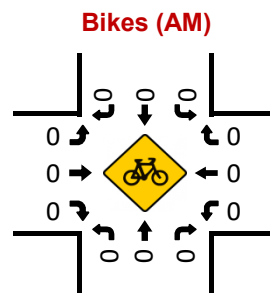
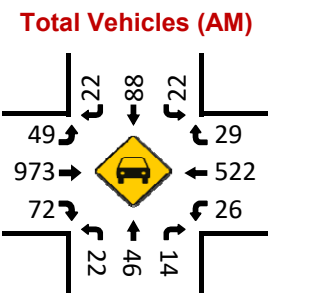
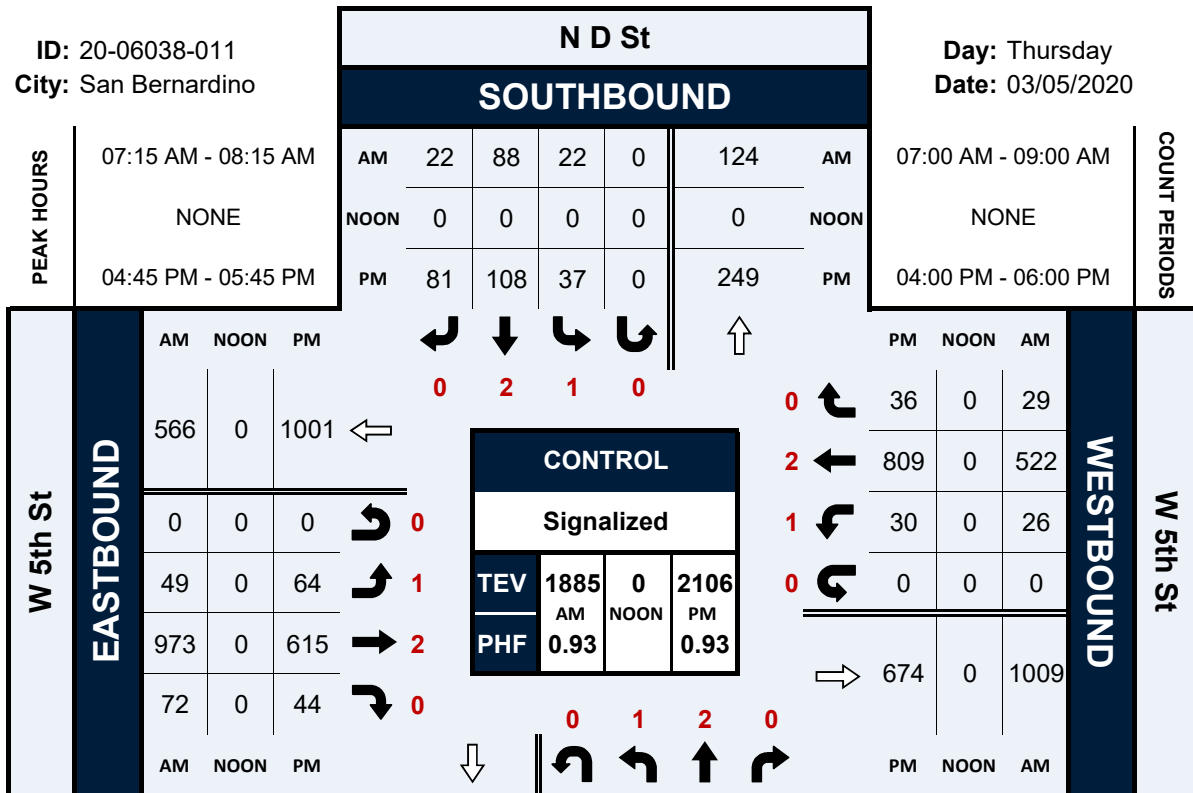
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	5	3	4	1	1	3	1	0	18
4:15 PM	3	4	1	0	3	1	3	1	16
4:30 PM	0	1	0	1	1	9	0	0	12
4:45 PM	0	1	3	0	5	6	1	0	16
5:00 PM	1	3	1	0	2	4	1	1	13
5:15 PM	1	1	1	1	2	3	1	1	11
5:30 PM	3	1	1	0	2	0	0	1	8
5:45 PM	0	0	2	0	1	2	1	0	6
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	48.15%	51.85%	81.25%	18.75%	37.78%	62.22%	66.67%	33.33%	100
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	5	6	6	1	11	13	3	3	48
PEAK HR FACTOR :	0.417	0.500	0.500	0.250	0.550	0.542	0.750	0.750	0.750
	0.688		0.583		0.545		0.750		

N D St & W 5th St

Peak Hour Turning Movement Count

ID: 20-06038-011
City: San Bernardino

Day: Thursday
Date: 03/05/2020



National Data & Surveying Services

Intersection Turning Movement Count

Location: N Arrowhead Ave & W 5th St
City: San Bernardino
Control: Signalized

Project ID: 20-06038-012
Date: 3/5/2020

Total

NS/EW Streets:	N Arrowhead Ave				N Arrowhead Ave				W 5th St				W 5th St				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1	2	0	0	0	2	0	0	1	2	0	0	1	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	5	12	7	0	3	11	8	0	10	154	14	0	9	122	0	0	355
7:15 AM	7	14	5	0	6	31	10	0	12	212	20	0	12	151	3	0	483
7:30 AM	11	18	5	0	3	52	7	0	13	181	43	0	12	127	14	0	486
7:45 AM	10	28	10	0	10	58	7	0	17	194	58	0	12	140	10	0	554
8:00 AM	12	21	7	0	4	33	6	0	18	166	48	0	15	106	8	0	444
8:15 AM	7	27	8	0	1	28	2	0	15	154	23	0	5	93	9	0	372
8:30 AM	12	15	10	0	3	24	6	0	14	137	25	0	6	107	8	0	367
8:45 AM	14	21	7	0	4	28	9	0	16	141	32	0	9	99	5	0	385
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	78	156	59	0	34	265	55	0	115	1339	263	0	80	945	57	0	3446
	26.62%	53.24%	20.14%	0.00%	9.60%	74.86%	15.54%	0.00%	6.70%	77.98%	15.32%	0.00%	7.39%	87.34%	5.27%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	40	81	27	0	23	174	30	0	60	753	169	0	51	524	35	0	1967
PEAK HR FACTOR :	0.833	0.723	0.675	0.000	0.575	0.750	0.750	0.000	0.833	0.888	0.728	0.000	0.850	0.868	0.625	0.000	0.888
	0.771				0.757				0.913				0.919				
PM	1	2	0	0	0	2	0	0	1	2	0	0	1	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	30	62	24	0	5	29	6	0	15	187	3	0	7	169	4	0	541
4:15 PM	12	68	23	0	5	40	16	0	12	141	14	0	12	168	5	0	516
4:30 PM	26	72	22	0	10	35	12	0	13	167	11	0	11	171	8	0	558
4:45 PM	17	72	18	0	6	35	14	0	9	165	10	0	8	164	8	0	526
5:00 PM	36	89	21	0	3	33	8	0	17	143	7	0	4	207	14	0	582
5:15 PM	17	77	20	0	5	28	9	0	8	144	4	0	15	167	9	0	503
5:30 PM	20	57	33	0	8	33	11	0	18	131	5	0	6	198	2	0	522
5:45 PM	18	60	15	0	4	35	10	0	7	153	15	0	10	156	4	0	487
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	176	557	176	0	46	268	86	0	99	1231	69	0	73	1400	54	0	4235
	19.36%	61.28%	19.36%	0.00%	11.50%	67.00%	21.50%	0.00%	7.08%	87.99%	4.93%	0.00%	4.78%	91.68%	3.54%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	91	301	84	0	24	143	50	0	51	616	42	0	35	710	35	0	2182
PEAK HR FACTOR :	0.632	0.846	0.913	0.000	0.600	0.894	0.781	0.000	0.750	0.922	0.750	0.000	0.729	0.857	0.625	0.000	0.937
	0.815				0.889				0.928				0.867				

National Data & Surveying Services

Intersection Turning Movement Count

Location: N Arrowhead Ave & W 5th St
City: San Bernardino
Control: Signalized

Project ID: 20-06038-012
Date: 3/5/2020

Bikes

NS/EW Streets:	N Arrowhead Ave				N Arrowhead Ave				W 5th St				W 5th St				TOTAL
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	3
	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:15 PM	0	3	0	0	0	0	0	0	0	0	2	0	0	0	0	0	5
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	6	1	0	0	2	0	0	0	1	2	0	0	0	0	0	12
	0.00%	85.71%	14.29%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	33.33%	66.67%	0.00%	0.00%	0.00%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	4	0	0	0	1	0	0	0	0	2	0	0	0	0	0	7
PEAK HR FACTOR :	0.00	0.333	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.350
			0.333			0.250					0.250						

National Data & Surveying Services

Intersection Turning Movement Count

Location: N Arrowhead Ave & W 5th St
City: San Bernardino

Project ID: 20-06038-012
Date: 3/5/2020

Pedestrians (Crosswalks)

NS/EW Streets:	N Arrowhead Ave		N Arrowhead Ave		W 5th St		W 5th St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	1	0	0	1	0	0	1	3
7:15 AM	0	0	1	0	1	0	0	0	2
7:30 AM	0	1	1	0	3	0	1	1	7
7:45 AM	0	1	0	0	0	1	0	0	2
8:00 AM	4	0	0	0	0	0	0	0	4
8:15 AM	1	0	0	0	0	0	0	0	1
8:30 AM	0	1	2	3	0	2	1	1	10
8:45 AM	0	0	4	3	1	3	2	1	14
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	5	4	8	6	6	6	4	4	43
	55.56%	44.44%	57.14%	42.86%	50.00%	50.00%	50.00%	50.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	4	2	2	0	4	1	1	1	15
PEAK HR FACTOR :	0.250	0.500	0.500		0.333	0.250	0.250	0.250	0.536
	0.375		0.500		0.417		0.250		

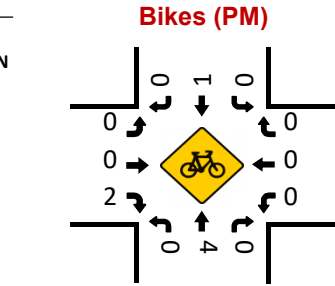
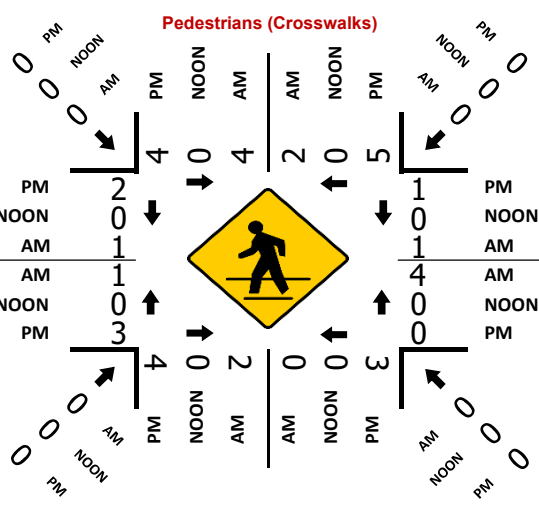
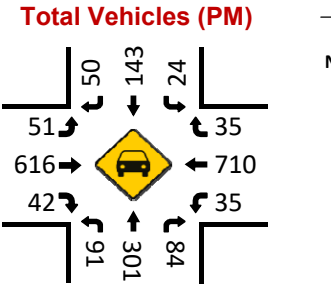
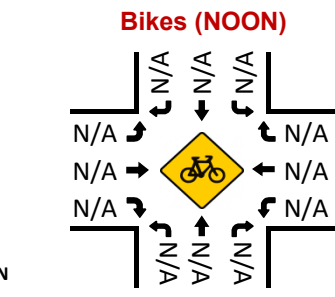
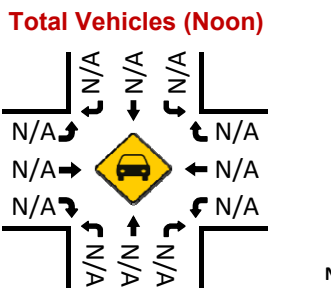
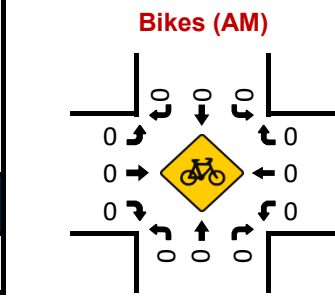
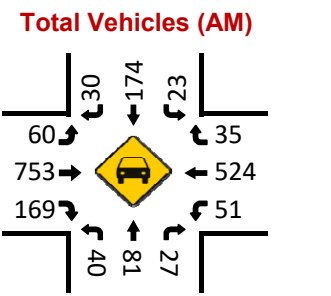
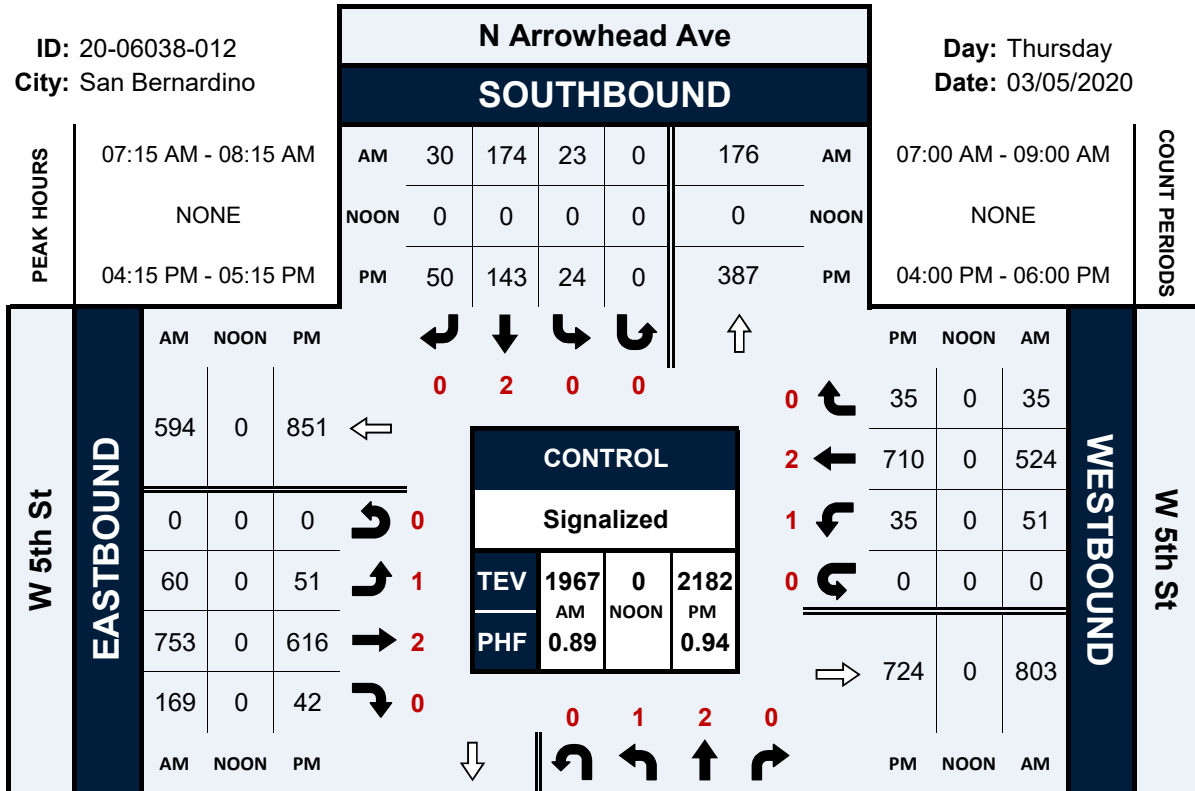
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	5	1	5	4	1	2	1	0	19
4:15 PM	0	1	2	0	0	0	0	0	3
4:30 PM	1	3	0	0	0	0	0	2	6
4:45 PM	3	0	1	0	0	0	1	0	5
5:00 PM	0	1	1	3	0	1	2	0	8
5:15 PM	0	0	0	1	2	0	1	1	5
5:30 PM	1	0	3	0	1	0	0	2	7
5:45 PM	0	0	1	0	0	0	0	0	1
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	10	6	13	8	4	3	5	5	54
	62.50%	37.50%	61.90%	38.10%	57.14%	42.86%	50.00%	50.00%	
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	4	5	4	3	0	1	3	2	22
PEAK HR FACTOR :	0.333	0.417	0.500	0.250		0.250	0.375	0.250	0.688
	0.563		0.438		0.250		0.625		

N Arrowhead Ave & W 5th St

Peak Hour Turning Movement Count

ID: 20-06038-012
City: San Bernardino

Day: Thursday
Date: 03/05/2020



VOLUME

W 5th St Bet. I-215 SB Ramps & I-215 NB Ramps

Day: Thursday
Date: 3/5/2020

City: San Bernardino
Project #: 20-6039-020

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	12,877	17,285	30,162		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
0:00			31	65	96	12:00			195	247	442
0:15			29	54	83	12:15			208	244	452
0:30			43	45	88	12:30			206	277	483
0:45			30	133	48	12:45		817	265	1033	473
1:00			32	38	70	13:00			188	291	479
1:15			26	43	69	13:15			242	288	530
1:30			13	28	41	13:30			198	275	473
1:45			17	88	38	13:45		787	264	1118	423
2:00			21	36	57	14:00			192	281	473
2:15			21	45	66	14:15			196	287	483
2:30			19	37	56	14:30			195	321	516
2:45			19	80	43	14:45		799	289	1178	505
3:00			20	40	60	15:00			224	302	526
3:15			24	55	79	15:15			216	286	502
3:30			26	58	84	15:30			218	292	510
3:45			30	100	64	15:45		891	302	1182	535
4:00			27	55	82	16:00			174	321	495
4:15			44	79	123	16:15			199	301	500
4:30			32	92	124	16:30			247	298	545
4:45			55	158	88	16:45		803	323	1243	506
5:00			59	79	138	17:00			166	356	522
5:15			71	105	176	17:15			220	322	542
5:30			91	115	206	17:30			213	305	518
5:45			85	306	120	17:45		816	267	1250	484
6:00			94	133	227	18:00			190	280	470
6:15			98	137	235	18:15			170	292	462
6:30			160	147	307	18:30			186	242	428
6:45			241	593	185	18:45		693	255	1069	402
7:00			230	212	442	19:00			150	214	364
7:15			283	201	484	19:15			136	219	355
7:30			282	211	493	19:30			129	207	336
7:45			320	1115	188	19:45		536	199	839	320
8:00			247	191	438	20:00			112	198	310
8:15			252	172	424	20:15			120	211	331
8:30			222	193	415	20:30			105	181	286
8:45			225	946	195	20:45		436	159	749	258
9:00			167	178	345	21:00			103	163	266
9:15			151	201	352	21:15			104	137	241
9:30			176	206	382	21:30			78	142	220
9:45			166	660	222	21:45		372	140	582	227
10:00			163	189	352	22:00			59	126	185
10:15			153	234	387	22:15			60	107	167
10:30			208	237	445	22:30			64	110	174
10:45			175	699	180	22:45		237	95	438	149
11:00			149	233	382	23:00			51	86	137
11:15			137	253	390	23:15			48	91	139
11:30			161	260	421	23:30			41	82	123
11:45			181	628	254	23:45		184	63	322	107
TOTALS			5506	6282	11788	TOTALS			7371	11003	18374
SPLIT %			46.7%	53.3%	39.1%	SPLIT %			40.1%	59.9%	60.9%

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	12,877	17,285	30,162		
AM Peak Hour			7:15	11:45	7:00	PM Peak Hour			15:00	16:45	16:30
AM Pk Volume			1132	1022	1927	PM Pk Volume			891	1306	2115
Pk Hr Factor			0.884	0.922	0.948	Pk Hr Factor			0.956	0.917	0.970
7 - 9 Volume	0	0	2061	1563	3624	4 - 6 Volume	0	0	1619	2493	4112
7 - 9 Peak Hour			7:15	7:00	7:00	4 - 6 Peak Hour			16:30	16:45	16:30
7 - 9 Pk Volume	0	0	1132	812	1927	4 - 6 Pk Volume	0	0	816	1306	2115
Pk Hr Factor	0.000	0.000	0.884	0.958	0.948	Pk Hr Factor	0.000	0.000	0.826	0.917	0.970

VOLUME

W 5th St Bet. J St & Southbound I-215 Ramps

Day: Thursday
Date: 3/5/2020

City: San Bernardino
Project #: CA20_6037_013

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	13,577	0	13,577		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00			30	0	30	12:00			191	0	191
00:15			22	0	22	12:15			200	0	200
00:30			50	0	50	12:30			211	0	211
00:45			38	140	38 140	12:45			210	812	210 812
01:00			47	0	47	13:00			197	0	197
01:15			26	0	26	13:15			244	0	244
01:30			40	0	40	13:30			193	0	193
01:45			33	146	33 146	13:45			191	825	191 825
02:00			23	0	23	14:00			187	0	187
02:15			36	0	36	14:15			212	0	212
02:30			34	0	34	14:30			218	0	218
02:45			36	129	36 129	14:45			196	813	196 813
03:00			44	0	44	15:00			229	0	229
03:15			66	0	66	15:15			210	0	210
03:30			65	0	65	15:30			214	0	214
03:45			60	235	60 235	15:45			215	868	215 868
04:00			68	0	68	16:00			179	0	179
04:15			95	0	95	16:15			206	0	206
04:30			97	0	97	16:30			221	0	221
04:45			97	357	97 357	16:45			208	814	208 814
05:00			112	0	112	17:00			199	0	199
05:15			126	0	126	17:15			205	0	205
05:30			144	0	144	17:30			218	0	218
05:45			139	521	139 521	17:45			217	839	217 839
06:00			120	0	120	18:00			211	0	211
06:15			142	0	142	18:15			184	0	184
06:30			180	0	180	18:30			211	0	211
06:45			157	599	157 599	18:45			171	777	171 777
07:00			141	0	141	19:00			180	0	180
07:15			220	0	220	19:15			151	0	151
07:30			229	0	229	19:30			135	0	135
07:45			202	792	202 792	19:45			156	622	156 622
08:00			175	0	175	20:00			134	0	134
08:15			177	0	177	20:15			127	0	127
08:30			184	0	184	20:30			122	0	122
08:45			206	742	206 742	20:45			115	498	115 498
09:00			155	0	155	21:00			151	0	151
09:15			139	0	139	21:15			113	0	113
09:30			193	0	193	21:30			91	0	91
09:45			174	661	174 661	21:45			90	445	90 445
10:00			180	0	180	22:00			86	0	86
10:15			165	0	165	22:15			84	0	84
10:30			187	0	187	22:30			78	0	78
10:45			167	699	167 699	22:45			70	318	70 318
11:00			172	0	172	23:00			74	0	74
11:15			164	0	164	23:15			66	0	66
11:30			171	0	171	23:30			58	0	58
11:45			159	666	159 666	23:45			61	259	61 259
TOTALS			5687		5687	TOTALS			7890		7890
SPLIT %			100.0%		41.9%	SPLIT %			100.0%		58.1%

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	13,577	0	13,577		
AM Peak Hour			07:15		07:15	PM Peak Hour			15:00		15:00
AM Pk Volume			826		826	PM Pk Volume			868		868
Pk Hr Factor			0.902		0.902	Pk Hr Factor			0.948		0.948
7 - 9 Volume	0	0	1534	0	1534	4 - 6 Volume	0	0	1653	0	1653
7 - 9 Peak Hour			07:15		07:15	4 - 6 Peak Hour			17:00		17:00
7 - 9 Pk Volume	0	0	826	0	826	4 - 6 Pk Volume	0	0	839	0	839
Pk Hr Factor	0.000	0.000	0.902	0.000	0.902	Pk Hr Factor	0.000	0.000	0.962	0.000	0.962

VOLUME

W 5th St Bet. NB I-215 Ramps & N H St

Day: Thursday
Date: 3/5/2020

City: San Bernardino
Project #: CA20_6037_014

DAILY TOTALS					NB	SB	EB	WB	Total			
					0	0	16,279	17,910	34,189			
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00			35	44	79	12:00			240	281	521	
00:15			29	40	69	12:15			250	265	515	
00:30			22	49	71	12:30			248	303	551	
00:45			23	109	39	12:45			265	1003	267	1116
01:00			24	33	57	13:00			245	292	537	
01:15			19	25	44	13:15			296	335	631	
01:30			18	27	45	13:30			238	336	574	
01:45			16	77	39	13:45			250	1029	300	1263
02:00			9	18	27	14:00			258	303	561	
02:15			14	32	46	14:15			256	311	567	
02:30			9	29	38	14:30			260	363	623	
02:45			16	48	31	14:45			275	1049	316	1293
03:00			13	27	40	15:00			278	344	622	
03:15			16	31	47	15:15			267	329	596	
03:30			25	55	80	15:30			280	317	597	
03:45			34	88	55	15:45			282	1107	347	1337
04:00			27	49	76	16:00			277	395	672	
04:15			36	82	118	16:15			273	343	616	
04:30			41	85	126	16:30			273	370	643	
04:45			63	167	75	16:45			219	1042	387	1495
05:00			51	78	129	17:00			232	440	672	
05:15			84	101	185	17:15			246	404	650	
05:30			118	79	197	17:30			239	367	606	
05:45			126	379	118	17:45			287	1004	325	1536
06:00			119	129	248	18:00			255	313	568	
06:15			139	99	238	18:15			232	281	513	
06:30			194	123	317	18:30			234	249	483	
06:45			275	727	140	18:45			199	920	247	1090
07:00			269	183	452	19:00			195	214	409	
07:15			319	206	525	19:15			187	193	380	
07:30			335	190	525	19:30			177	208	385	
07:45			386	1309	183	19:45			131	690	196	811
08:00			341	170	511	20:00			145	190	335	
08:15			321	159	480	20:15			155	184	339	
08:30			274	196	470	20:30			140	178	318	
08:45			274	1210	212	20:45			119	559	130	682
09:00			235	197	432	21:00			125	124	249	
09:15			220	226	446	21:15			127	130	257	
09:30			249	218	467	21:30			122	126	248	
09:45			236	940	219	21:45			109	483	113	493
10:00			202	218	420	22:00			90	130	220	
10:15			210	275	485	22:15			90	80	170	
10:30			231	235	466	22:30			96	100	196	
10:45			229	872	206	22:45			84	360	78	388
11:00			214	269	483	23:00			73	76	149	
11:15			195	296	491	23:15			71	76	147	
11:30			213	281	494	23:30			48	70	118	
11:45			246	868	264	23:45			47	239	49	271
TOTALS			6794	6135	12929	TOTALS			9485	11775	21260	
SPLIT %			52.5%	47.5%	37.8%	SPLIT %			44.6%	55.4%	62.2%	

DAILY TOTALS					NB	SB	EB	WB	Total
					0	0	16,279	17,910	34,189

AM Peak Hour			07:30	11:15	07:15	PM Peak Hour			15:30	16:30	16:30
AM Pk Volume			1383	1122	2130	PM Pk Volume			1112	1601	2571
Pk Hr Factor			0.896	0.948	0.936	Pk Hr Factor			0.986	0.910	0.956
7 - 9 Volume	0	0	2519	1499	4018	4 - 6 Volume	0	0	2046	3031	5077
7 - 9 Peak Hour			07:30	07:00	07:15	4 - 6 Peak Hour			16:00	16:30	16:30
7 - 9 Pk Volume	0	0	1383	762	2130	4 - 6 Pk Volume	0	0	1042	1601	2571
Pk Hr Factor	0.000	0.000	0.896	0.925	0.936	Pk Hr Factor	0.000	0.000	0.940	0.910	0.956

VOLUME

W 5th St Bet. H St & G St

Day: Thursday
Date: 3/5/2020

City: San Bernardino
Project #: CA20_6037_015

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	0	13,554	13,554		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00			0	45	45	12:00			0	221	221
00:15			0	38	38	12:15			0	234	234
00:30			0	41	41	12:30			0	213	213
00:45			0	25 149	25 149	12:45			0	198 866	198 866
01:00			0	24	24	13:00			0	229	229
01:15			0	27	27	13:15			0	256	256
01:30			0	15	15	13:30			0	226	226
01:45			0	31 97	31 97	13:45			0	216 927	216 927
02:00			0	21	21	14:00			0	246	246
02:15			0	23	23	14:15			0	222	222
02:30			0	19	19	14:30			0	257	257
02:45			0	26 89	26 89	14:45			0	236 961	236 961
03:00			0	22	22	15:00			0	263	263
03:15			0	23	23	15:15			0	250	250
03:30			0	41	41	15:30			0	255	255
03:45			0	47 133	47 133	15:45			0	258 1026	258 1026
04:00			0	45	45	16:00			0	285	285
04:15			0	65	65	16:15			0	261	261
04:30			0	62	62	16:30			0	258	258
04:45			0	66 238	66 238	16:45			0	280 1084	280 1084
05:00			0	66	66	17:00			0	320	320
05:15			0	72	72	17:15			0	278	278
05:30			0	68	68	17:30			0	266	266
05:45			0	73 279	73 279	17:45			0	243 1107	243 1107
06:00			0	85	85	18:00			0	224	224
06:15			0	81	81	18:15			0	212	212
06:30			0	99	99	18:30			0	185	185
06:45			0	114 379	114 379	18:45			0	176 797	176 797
07:00			0	144	144	19:00			0	154	154
07:15			0	162	162	19:15			0	126	126
07:30			0	129	129	19:30			0	168	168
07:45			0	141 576	141 576	19:45			0	152 600	152 600
08:00			0	131	131	20:00			0	141	141
08:15			0	125	125	20:15			0	146	146
08:30			0	148	148	20:30			0	143	143
08:45			0	151 555	151 555	20:45			0	98 528	98 528
09:00			0	157	157	21:00			0	97	97
09:15			0	179	179	21:15			0	99	99
09:30			0	183	183	21:30			0	100	100
09:45			0	157 676	157 676	21:45			0	86 382	86 382
10:00			0	171	171	22:00			0	95	95
10:15			0	210	210	22:15			0	69	69
10:30			0	190	190	22:30			0	80	80
10:45			0	149 720	149 720	22:45			0	64 308	64 308
11:00			0	213	213	23:00			0	53	53
11:15			0	225	225	23:15			0	61	61
11:30			0	210	210	23:30			0	66	66
11:45			0	217 865	217 865	23:45			0	32 212	32 212
TOTALS				4756	4756	TOTALS				8798	8798
SPLIT %				100.0%	35.1%	SPLIT %				100.0%	64.9%

DAILY TOTALS					NB	SB	EB	WB	Total
					0	0	0	13,554	13,554

AM Peak Hour				11:45	11:45	PM Peak Hour				16:45	16:45
AM Pk Volume				885	885	PM Pk Volume				1144	1144
Pk Hr Factor				0.946	0.946	Pk Hr Factor				0.894	0.894
7 - 9 Volume	0	0	0	1131	1131	4 - 6 Volume	0	0	0	2191	2191
7 - 9 Peak Hour				07:00	07:00	4 - 6 Peak Hour				16:45	16:45
7 - 9 Pk Volume	0	0	0	576	576	4 - 6 Pk Volume	0	0	0	1144	1144
Pk Hr Factor	0.000	0.000	0.000	0.889	0.889	Pk Hr Factor	0.000	0.000	0.000	0.894	0.894

VOLUME

W 5th St Bet. G St & F St

Day: Thursday
Date: 3/5/2020

City: San Bernardino
Project #: CA20_6037_016

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	0	13,316	13,316		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00			0	45	45	12:00			0	218	218
00:15			0	37	37	12:15			0	233	233
00:30			0	38	38	12:30			0	210	210
00:45			0	25 145	25 145	12:45			0	196 857	196 857
01:00			0	23	23	13:00			0	228	228
01:15			0	27	27	13:15			0	251	251
01:30			0	15	15	13:30			0	224	224
01:45			0	31 96	31 96	13:45			0	215 918	215 918
02:00			0	20	20	14:00			0	236	236
02:15			0	21	21	14:15			0	222	222
02:30			0	19	19	14:30			0	255	255
02:45			0	26 86	26 86	14:45			0	233 946	233 946
03:00			0	22	22	15:00			0	262	262
03:15			0	22	22	15:15			0	246	246
03:30			0	38	38	15:30			0	250	250
03:45			0	47 129	47 129	15:45			0	234 992	234 992
04:00			0	44	44	16:00			0	279	279
04:15			0	63	63	16:15			0	257	257
04:30			0	60	60	16:30			0	247	247
04:45			0	63 230	63 230	16:45			0	248 1031	248 1031
05:00			0	64	64	17:00			0	299	299
05:15			0	71	71	17:15			0	257	257
05:30			0	67	67	17:30			0	258	258
05:45			0	69 271	69 271	17:45			0	245 1059	245 1059
06:00			0	80	80	18:00			0	222	222
06:15			0	77	77	18:15			0	210	210
06:30			0	97	97	18:30			0	186	186
06:45			0	113 367	113 367	18:45			0	177 795	177 795
07:00			0	138	138	19:00			0	151	151
07:15			0	161	161	19:15			0	127	127
07:30			0	130	130	19:30			0	168	168
07:45			0	140 569	140 569	19:45			0	152 598	152 598
08:00			0	130	130	20:00			0	141	141
08:15			0	126	126	20:15			0	146	146
08:30			0	147	147	20:30			0	140	140
08:45			0	150 553	150 553	20:45			0	98 525	98 525
09:00			0	157	157	21:00			0	98	98
09:15			0	178	178	21:15			0	99	99
09:30			0	183	183	21:30			0	99	99
09:45			0	157 675	157 675	21:45			0	86 382	86 382
10:00			0	167	167	22:00			0	94	94
10:15			0	212	212	22:15			0	70	70
10:30			0	188	188	22:30			0	80	80
10:45			0	146 713	146 713	22:45			0	64 308	64 308
11:00			0	211	211	23:00			0	53	53
11:15			0	225	225	23:15			0	61	61
11:30			0	210	210	23:30			0	66	66
11:45			0	214 860	214 860	23:45			0	31 211	31 211
TOTALS				4694	4694	TOTALS				8622	8622
SPLIT %				100.0%	35.3%	SPLIT %				100.0%	64.7%

DAILY TOTALS					NB	SB	EB	WB	Total
					0	0	0	13,316	13,316

AM Peak Hour				11:30	11:30	PM Peak Hour				16:45	16:45
AM Pk Volume				875	875	PM Pk Volume				1062	1062
Pk Hr Factor				0.939	0.939	Pk Hr Factor				0.888	0.888
7 - 9 Volume	0	0	0	1122	1122	4 - 6 Volume	0	0	0	2090	2090
7 - 9 Peak Hour				07:00	07:00	4 - 6 Peak Hour				16:45	16:45
7 - 9 Pk Volume	0	0	0	569	569	4 - 6 Pk Volume	0	0	0	1062	1062
Pk Hr Factor	0.000	0.000	0.000	0.884	0.884	Pk Hr Factor	0.000	0.000	0.000	0.888	0.888

VOLUME

W 5th St Bet. F St & E St

Day: Thursday
Date: 3/5/2020

City: San Bernardino
Project #: CA20_6037_017

DAILY TOTALS					NB	SB						Total			
					0	0						25,183			
					12,553		12,630								
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00			24	31	55		12:00			202	224	426			
00:15			23	25	48		12:15			211	219	430			
00:30			15	32	47		12:30			237	192	429			
00:45			22	84	24	112	12:45			204	854	191	826	395	1680
01:00			26	19	45		13:00			206	218	424			
01:15			14	19	33		13:15			202	257	459			
01:30			20	13	33		13:30			206	216	422			
01:45			20	80	28	79	13:45			189	803	210	901	399	1704
02:00			10	17	27		14:00			202	244	446			
02:15			10	22	32		14:15			199	229	428			
02:30			6	16	22		14:30			198	256	454			
02:45			19	45	27	82	14:45			185	784	227	956	412	1740
03:00			8	18	26		15:00			208	250	458			
03:15			18	16	34		15:15			202	261	463			
03:30			20	36	56		15:30			190	258	448			
03:45			32	78	46	116	15:45			200	800	257	1026	457	1826
04:00			16	51	67		16:00			227	275	502			
04:15			32	51	83		16:15			172	261	433			
04:30			26	59	85		16:30			196	279	475			
04:45			50	124	47	208	16:45			186	781	275	1090	461	1871
05:00			46	64	110		17:00			163	325	488			
05:15			67	70	137		17:15			180	262	442			
05:30			106	57	163		17:30			167	278	445			
05:45			100	319	68	259	17:45			202	712	221	1086	423	1798
06:00			103	73	176		18:00			193	208	401			
06:15			110	72	182		18:15			157	195	352			
06:30			182	96	278		18:30			148	173	321			
06:45			258	653	129	370	18:45			140	638	142	718	282	1356
07:00			252	140	392		19:00			125	138	263			
07:15			284	156	440		19:15			111	106	217			
07:30			306	139	445		19:30			113	123	236			
07:45			328	1170	142	577	19:45			109	458	100	467	209	925
08:00			308	129	437		20:00			98	102	200			
08:15			259	127	386		20:15			82	103	185			
08:30			236	135	371		20:30			75	100	175			
08:45			231	1034	133	524	20:45			84	339	70	375	154	714
09:00			198	145	343		21:00			75	72	147			
09:15			178	182	360		21:15			77	68	145			
09:30			226	176	402		21:30			62	78	140			
09:45			203	805	154	657	21:45			64	278	69	287	133	565
10:00			189	164	353		22:00			53	61	114			
10:15			177	195	372		22:15			44	50	94			
10:30			173	193	366		22:30			48	66	114			
10:45			192	731	149	701	22:45			50	195	46	223	96	418
11:00			161	226	387		23:00			46	41	87			
11:15			161	194	355		23:15			33	46	79			
11:30			144	202	346		23:30			27	39	66			
11:45			187	653	214	836	23:45			29	135	28	154	57	289
TOTALS			5776	4521	10297		TOTALS			6777	8109	14886			
SPLIT %			56.1%	43.9%	40.9%		SPLIT %			45.5%	54.5%	59.1%			

DAILY TOTALS					NB	SB						Total
					0	0						25,183
					12,553		12,630					

AM Peak Hour			07:15	11:30	07:15	PM Peak Hour			12:15	16:30	16:00
AM Pk Volume			1226	859	1792	PM Pk Volume			858	1141	1871
Pk Hr Factor			0.934	0.959	0.953	Pk Hr Factor			0.905	0.878	0.932
7 - 9 Volume	0	0	2204	1101	3305	4 - 6 Volume	0	0	1493	2176	3669
7 - 9 Peak Hour			07:15	07:00	07:15	4 - 6 Peak Hour			16:00	16:30	16:00
7 - 9 Pk Volume	0	0	1226	577	1792	4 - 6 Pk Volume	0	0	781	1141	1871
Pk Hr Factor	0.000	0.000	0.934	0.925	0.953	Pk Hr Factor	0.000	0.000	0.860	0.878	0.932

VOLUME

W 5th St Bet. E St & D St

Day: Thursday
Date: 3/5/2020

City: San Bernardino
Project #: CA20_6037_018

DAILY TOTALS					NB	SB						Total			
					0	0						23,273			
					11,840							11,433			
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00			19	31	50		12:00			193	218	411			
00:15			18	23	41		12:15			211	212	423			
00:30			11	31	42		12:30			206	183	389			
00:45			16	64	21	106	12:45			205	815	181	794	386	1609
01:00			24	16	40		13:00			189	198	387			
01:15			19	20	39		13:15			190	225	415			
01:30			13	10	23		13:30			201	203	404			
01:45			17	73	20	66	13:45			171	751	183	809	354	1560
02:00			10	12	22		14:00			189	215	404			
02:15			11	15	26		14:15			189	189	378			
02:30			12	14	26		14:30			197	223	420			
02:45			23	56	23	64	14:45			184	759	208	835	392	1594
03:00			12	15	27		15:00			202	246	448			
03:15			17	15	32		15:15			205	233	438			
03:30			22	33	55		15:30			178	229	407			
03:45			27	78	41	104	15:45			194	779	223	931	417	1710
04:00			14	42	56		16:00			205	253	458			
04:15			28	55	83		16:15			172	220	392			
04:30			23	55	78		16:30			181	228	409			
04:45			48	113	45	197	16:45			182	740	232	933	414	1673
05:00			41	64	105		17:00			167	294	461			
05:15			56	59	115		17:15			166	240	406			
05:30			105	54	159		17:30			169	237	406			
05:45			97	299	56	233	17:45			189	691	202	973	391	1664
06:00			97	61	158		18:00			184	179	363			
06:15			103	65	168		18:15			141	186	327			
06:30			167	97	264		18:30			135	157	292			
06:45			240	607	111	334	18:45			128	588	137	659	265	1247
07:00			238	146	384		19:00			124	121	245			
07:15			278	163	441		19:15			110	94	204			
07:30			288	147	435		19:30			107	106	213			
07:45			315	1119	142	598	19:45			97	438	92	413	189	851
08:00			302	124	426		20:00			90	91	181			
08:15			239	110	349		20:15			85	73	158			
08:30			215	121	336		20:30			75	91	166			
08:45			214	970	129	484	20:45			84	334	57	312	141	646
09:00			185	149	334		21:00			66	63	129			
09:15			163	174	337		21:15			78	75	153			
09:30			207	166	373		21:30			60	67	127			
09:45			182	737	137	626	21:45			59	263	68	273	127	536
10:00			165	153	318		22:00			44	64	108			
10:15			165	168	333		22:15			42	41	83			
10:30			148	165	313		22:30			53	61	114			
10:45			190	668	137	623	22:45			47	186	38	204	85	390
11:00			143	205	348		23:00			40	36	76			
11:15			159	168	327		23:15			32	40	72			
11:30			127	177	304		23:30			27	36	63			
11:45			157	586	179	729	23:45			27	126	21	133	48	259
TOTALS			5370		4164		TOTALS			6470		7269		13739	
SPLIT %			56.3%		43.7%		SPLIT %			47.1%		52.9%		59.0%	

DAILY TOTALS					NB	SB						Total	
					0	0						23,273	
					11,840							11,433	

AM Peak Hour			07:15	11:45	07:15	PM Peak Hour			12:00	16:45	15:15
AM Pk Volume			1183	792	1759	PM Pk Volume			815	1003	1720
Pk Hr Factor			0.939	0.908	0.962	Pk Hr Factor			0.966	0.853	0.939
7 - 9 Volume	0	0	2089	1082	3171	4 - 6 Volume	0	0	1431	1906	3337
7 - 9 Peak Hour			07:15	07:00	07:15	4 - 6 Peak Hour			16:00	16:45	16:30
7 - 9 Pk Volume	0	0	1183	598	1759	4 - 6 Pk Volume	0	0	740	1003	1690
Pk Hr Factor	0.000	0.000	0.939	0.917	0.962	Pk Hr Factor	0.000	0.000	0.902	0.853	0.916

VOLUME

W 5th St Bet. D St & Arrowhead Ave

Day: Thursday
Date: 3/5/2020

City: San Bernardino
Project #: CA20_6037_019

DAILY TOTALS					NB	SB	EB	WB	Total					
					0	0	10,895	10,894	21,789					
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL			
00:00			16	28	44	12:00			175	215	390			
00:15			16	21	37	12:15			192	203	395			
00:30			13	27	40	12:30			199	178	377			
00:45			17	62	15	91	12:45		192	758	161	757	353	1515
01:00			16	16	32	13:00			169	198	367			
01:15			14	17	31	13:15			195	206	401			
01:30			17	12	29	13:30			171	180	351			
01:45			14	61	19	64	13:45		167	702	166	750	333	1452
02:00			10	11	21	14:00			168	212	380			
02:15			11	15	26	14:15			166	203	369			
02:30			10	11	21	14:30			189	226	415			
02:45			19	50	22	59	14:45		161	684	204	845	365	1529
03:00			13	15	28	15:00			184	253	437			
03:15			15	12	27	15:15			199	217	416			
03:30			18	33	51	15:30			178	232	410			
03:45			27	73	38	98	15:45		195	756	234	936	429	1692
04:00			11	50	61	16:00			209	226	435			
04:15			29	46	75	16:15			182	206	388			
04:30			24	56	80	16:30			199	221	420			
04:45			36	100	46	198	16:45		200	790	221	874	421	1664
05:00			36	60	96	17:00			171	283	454			
05:15			51	63	114	17:15			164	199	363			
05:30			101	53	154	17:30			160	244	404			
05:45			77	265	60	236	17:45		180	675	205	931	385	1606
06:00			68	51	119	18:00			185	161	346			
06:15			98	67	165	18:15			148	162	310			
06:30			126	100	226	18:30			132	141	273			
06:45			186	478	117	335	18:45		116	581	130	594	246	1175
07:00			185	137	322	19:00			118	106	224			
07:15			251	174	425	19:15			102	82	184			
07:30			240	149	389	19:30			87	87	174			
07:45			285	961	149	609	19:45		82	389	78	353	160	742
08:00			245	116	361	20:00			85	65	150			
08:15			184	99	283	20:15			79	67	146			
08:30			192	126	318	20:30			79	64	143			
08:45			190	811	125	466	20:45		82	325	47	243	129	568
09:00			164	139	303	21:00			66	55	121			
09:15			143	164	307	21:15			66	58	124			
09:30			171	153	324	21:30			67	71	138			
09:45			160	638	143	599	21:45		61	260	48	232	109	492
10:00			140	151	291	22:00			37	53	90			
10:15			144	168	312	22:15			43	41	84			
10:30			150	151	301	22:30			41	56	97			
10:45			161	595	143	613	22:45		50	171	33	183	83	354
11:00			154	181	335	23:00			45	29	74			
11:15			156	171	327	23:15			27	34	61			
11:30			134	182	316	23:30			29	31	60			
11:45			143	587	182	716	23:45		22	123	18	112	40	235
TOTALS			4681	4084	8765	TOTALS			6214	6810	13024			
SPLIT %			53.4%	46.6%	40.2%	SPLIT %			47.7%	52.3%	59.8%			

DAILY TOTALS					NB	SB	EB	WB	Total
					0	0	10,895	10,894	21,789

AM Peak Hour			07:15	11:30	07:15	PM Peak Hour			16:00	16:45	15:00
AM Pk Volume			1021	782	1609	PM Pk Volume			790	947	1692
Pk Hr Factor			0.896	0.909	0.927	Pk Hr Factor			0.945	0.837	0.968
7 - 9 Volume	0	0	1772	1075	2847	4 - 6 Volume	0	0	1465	1805	3270
7 - 9 Peak Hour			07:15	07:00	07:15	4 - 6 Peak Hour			16:00	16:45	16:15
7 - 9 Pk Volume	0	0	1021	609	1609	4 - 6 Pk Volume	0	0	790	947	1683
Pk Hr Factor	0.000	0.000	0.896	0.875	0.927	Pk Hr Factor	0.000	0.000	0.945	0.837	0.927

Gateway Downtown - Parcel B, C & D TIS - Driveway Counts (In & Out Burger)

Location: In-N-Out Burger - Hamburger restaurant, 795 W 5th St

Date: 1/20/2022

City: San Bernardino

Day: Thursday

TIME	North Dwy [001]				West Dwy [002]						Trip Gen				Outcome
	ER	WL	NL	NR	NR	SL	ET	WL	WT	WR	IN	OUT	IN	OUT	
12:00 AM	11	2	2	2	2	2	0	1	0	8	13	4	4	9	4
12:15 AM	11	6	1	2	2	0	0	4	0	8	17	3	2	12	4
12:30 AM	5	2	0	2	2	3	0	1	0	13	7	2	5	14	-4
12:45 AM	5	3	2	1	2	0	0	0	0	9	8	3	2	9	-2
1:00 AM	2	0	2	3	1	0	0	0	0	9	2	5	1	9	-11
1:15 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	-1
1:30 AM	2	0	1	2	0	0	0	0	0	0	2	3	0	0	-1
1:45 AM	0	0	0	1	0	1	0	1	0	0	0	1	1	1	-1
2:00 AM	0	1	2	0	0	1	0	2	0	3	1	2	1	5	-5
2:15 AM	0	2	0	2	0	0	0	0	0	0	2	2	0	0	0
2:30 AM	0	0	0	0	1	1	0	0	0	1	0	0	2	1	1
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	1	0	0	0	0	0	0	0	0	1	0	0	-1
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	1	0	0	1	0	0	0	0	0	0	1	1	0	0	0
4:45 AM	1	0	0	0	0	0	0	0	0	1	1	0	0	1	0
5:00 AM	1	0	0	0	0	1	0	0	0	0	1	0	1	0	2
5:15 AM	0	1	1	1	0	2	0	0	0	1	1	2	2	1	0
5:30 AM	0	1	0	0	1	0	0	0	0	0	1	0	1	0	2
5:45 AM	1	0	0	0	0	0	0	0	0	1	1	0	0	1	0
6:00 AM	1	1	1	1	0	2	0	0	0	0	2	2	2	0	2
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	1	1	0	0	0	0	0	0	1	2	0	0	-1
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1
7:15 AM	2	0	0	1	0	0	0	0	0	1	2	1	0	1	0
7:30 AM	0	1	1	0	1	0	0	0	0	0	1	1	1	0	1
7:45 AM	2	0	1	1	0	2	0	0	0	0	2	2	2	0	2
8:00 AM	0	0	1	0	1	0	0	0	0	1	0	1	1	1	-1
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	-1
8:30 AM	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1
8:45 AM	0	1	0	2	1	1	0	1	0	0	1	2	2	1	0
9:00 AM	1	0	1	0	1	1	0	0	0	1	1	1	2	1	1
9:15 AM	0	2	0	1	0	1	0	0	0	1	2	1	1	1	1
9:30 AM	3	3	1	1	0	0	0	1	0	1	6	2	0	2	2
9:45 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1
10:00 AM	2	4	1	0	5	0	0	1	0	1	6	1	5	2	8
10:15 AM	10	4	0	1	3	5	0	2	0	8	14	1	8	10	11
10:30 AM	7	5	1	3	3	5	0	4	0	11	12	4	8	15	1

Gateway Downtown - Parcel B, C & D TIS - Driveway Counts (In & Out Burger)

Location: In-N-Out Burger - Hamburger restaurant, 795 W 5th St

Date: 1/20/2022

City: San Bernardino

Day: Thursday

TIME	North Dwy [001]				West Dwy [002]						Trip Gen				Outcome
	ER	WL	NL	NR	NR	SL	ET	WL	WT	WR	IN	OUT	IN	OUT	
10:45 AM	10	7	0	2	8	4	0	1	0	15	17	2	12	16	11
11:00 AM	10	6	1	3	6	7	0	2	0	13	16	4	13	15	10
11:15 AM	14	10	1	9	3	7	0	5	0	15	24	10	10	20	4
11:30 AM	14	10	4	2	4	3	0	3	0	34	24	6	7	37	-12
11:45 AM	10	14	1	4	5	4	1	3	0	21	24	5	10	24	5
12:00 PM	14	10	2	3	7	4	0	5	0	17	24	5	11	22	8
12:15 PM	17	14	6	4	6	6	1	7	1	24	31	10	13	32	2
12:30 PM	7	10	3	2	3	4	0	8	0	23	17	5	7	31	-12
12:45 PM	7	13	0	5	3	3	0	6	1	14	20	5	6	21	0
1:00 PM	18	12	3	3	3	2	0	6	0	24	30	6	5	30	-1
1:15 PM	8	10	0	5	12	2	0	6	0	18	18	5	14	24	3
1:30 PM	9	11	1	4	2	6	0	4	0	17	20	5	8	21	2
1:45 PM	20	9	3	1	2	4	0	2	0	23	29	4	6	25	6
2:00 PM	12	3	3	4	5	4	0	6	0	20	15	7	9	26	-9
2:15 PM	7	7	0	8	8	4	0	1	0	19	14	8	12	20	-2
2:30 PM	15	10	0	4	5	7	0	2	0	19	25	4	12	21	12
2:45 PM	13	14	4	9	3	3	0	10	0	24	27	13	6	34	-14
3:00 PM	14	6	2	3	4	8	0	2	0	22	20	5	12	24	3
3:15 PM	11	9	3	10	2	3	0	5	0	15	20	13	5	20	-8
3:30 PM	9	7	0	6	1	3	0	3	0	12	16	6	4	15	-1
3:45 PM	8	8	1	5	4	3	0	5	0	14	16	6	7	19	-2
4:00 PM	14	9	1	6	6	4	0	3	0	13	23	7	10	16	10
4:15 PM	6	8	4	1	6	4	1	4	0	10	14	5	11	14	6
4:30 PM	22	6	0	8	5	4	0	5	0	32	28	8	9	37	-8
4:45 PM	16	4	2	3	4	5	1	2	1	23	20	5	10	26	-1
5:00 PM	13	5	0	6	7	2	0	3	0	16	18	6	9	19	2
5:15 PM	18	6	0	7	4	5	0	2	0	20	24	7	9	22	4
5:30 PM	14	9	0	5	4	3	0	7	0	19	23	5	7	26	-1
5:45 PM	13	6	5	5	5	5	0	3	0	19	19	10	10	22	-3
6:00 PM	24	4	4	2	1	4	0	4	0	20	28	6	5	24	3
6:15 PM	16	5	4	1	4	4	0	4	0	19	21	5	8	23	1
6:30 PM	15	6	5	7	4	4	0	5	1	16	21	12	8	22	-5
6:45 PM	10	6	2	2	2	3	1	2	0	16	16	4	6	18	0
7:00 PM	12	7	3	6	1	4	0	3	0	18	19	9	5	21	-6
7:15 PM	13	13	2	4	3	4	0	1	0	14	26	6	7	15	12
7:30 PM	9	9	3	2	4	6	0	1	1	16	18	5	10	18	5
7:45 PM	18	3	6	1	1	2	0	2	1	24	21	7	3	27	-10
8:00 PM	17	5	3	3	6	6	0	1	0	26	22	6	12	27	1
8:15 PM	11	6	2	4	7	6	0	1	0	18	17	6	13	19	5
8:30 PM	10	6	5	3	3	2	0	5	0	16	16	8	5	21	-8
8:45 PM	14	3	3	2	0	3	1	5	1	22	17	5	4	28	-12
9:00 PM	7	6	1	2	0	2	0	4	0	15	13	3	2	19	-7
9:15 PM	12	9	2	4	1	2	1	1	0	16	21	6	4	17	2

Gateway Downtown - Parcel B, C & D TIS - Driveway Counts (In & Out Burger)

Location: In-N-Out Burger - Hamburger restaurant, 795 W 5th St

City: San Bernardino

Date: 1/20/2022

Day: Thursday

TIME	North Dwy [001]				West Dwy [002]						Trip Gen				Outcome
	ER	WL	NL	NR	NR	SL	ET	WL	WT	WR	IN	OUT	IN	OUT	
9:30 PM	8	7	5	2	1	2	1	2	1	10	15	7	4	13	-1
9:45 PM	12	3	1	1	2	2	0	1	0	16	15	2	4	17	0
10:00 PM	11	5	1	3	2	1	1	1	0	17	16	4	4	18	-2
10:15 PM	13	8	4	1	2	1	1	1	1	11	21	5	4	13	7
10:30 PM	13	2	1	1	0	3	0	1	0	12	15	2	3	13	3
10:45 PM	7	5	3	3	6	6	0	5	0	15	12	6	12	20	-2
11:00 PM	8	2	1	5	3	0	0	2	0	15	10	6	3	17	-10
11:15 PM	6	2	5	2	1	2	0	3	0	9	8	7	3	12	-8
11:30 PM	10	6	1	0	1	0	0	1	0	8	16	1	1	9	7
11:45 PM	15	5	5	1	0	4	0	2	0	11	20	6	4	13	5
Totals	724	428	143	229	218	224	10	197	9	1015	1152	372	452	1221	11

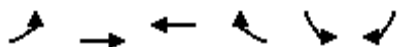
Appendix C: Intersection Analysis Worksheets

Gateway Downtown San Bernardino
1: Mt. Vernon Ave. & 5th St.

Existing (2022) Conditions
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕		↖	↕		↖	↕	
Traffic Volume (veh/h)	69	539	135	55	447	77	71	318	41	128	502	65
Future Volume (veh/h)	69	539	135	55	447	77	71	318	41	128	502	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	74	580	145	59	481	83	76	342	44	138	540	70
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	1141	284	83	1211	208	243	963	123	326	961	124
Arrive On Green	0.06	0.43	0.43	0.05	0.42	0.42	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1594	2661	663	1594	2871	493	724	3001	383	890	2996	387
Grp Volume(v), veh/h	74	366	359	59	281	283	76	191	195	138	303	307
Grp Sat Flow(s),veh/h/ln	1594	1683	1641	1594	1683	1680	724	1683	1700	890	1683	1699
Q Serve(g_s), s	2.8	9.6	9.7	2.2	7.0	7.1	5.9	5.2	5.3	8.5	9.0	9.1
Cycle Q Clear(g_c), s	2.8	9.6	9.7	2.2	7.0	7.1	14.9	5.2	5.3	13.8	9.0	9.1
Prop In Lane	1.00		0.40	1.00		0.29	1.00		0.23	1.00		0.23
Lane Grp Cap(c), veh/h	94	722	704	83	710	709	243	540	546	326	540	545
V/C Ratio(X)	0.79	0.51	0.51	0.71	0.40	0.40	0.31	0.35	0.36	0.42	0.56	0.56
Avail Cap(c_a), veh/h	185	722	704	185	710	709	316	710	717	416	710	717
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	12.6	12.6	28.2	12.1	12.2	23.2	15.7	15.8	21.1	17.0	17.0
Incr Delay (d2), s/veh	13.6	2.5	2.6	10.7	1.6	1.7	0.7	0.4	0.4	0.9	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.4	3.4	1.0	2.5	2.5	0.9	1.8	1.8	1.6	3.1	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	15.2	15.3	38.9	13.8	13.8	23.9	16.1	16.1	21.9	17.9	17.9
LnGrp LOS	D	B	B	D	B	B	C	B	B	C	B	B
Approach Vol, veh/h		799			623			462			748	
Approach Delay, s/veh		17.7			16.2			17.4			18.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.4	7.1	29.9		23.4	7.6	29.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		25.5	7.0	25.5		25.5	7.0	25.5				
Max Q Clear Time (g_c+I1), s		16.9	4.2	11.7		15.8	4.8	9.1				
Green Ext Time (p_c), s		1.7	0.0	3.6		3.0	0.0	2.9				
Intersection Summary												
HCM 6th Ctrl Delay				17.6								
HCM 6th LOS				B								



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	803	620	50	112	17
Future Volume (veh/h)	7	803	620	50	112	17
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1772	1673	1673
Adj Flow Rate, veh/h	8	873	674	54	122	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	569	1799	1687	135	173	26
Arrive On Green	0.53	0.53	0.53	0.53	0.13	0.13
Sat Flow, veh/h	650	3455	3245	253	1355	200
Grp Volume(v), veh/h	8	873	359	369	141	0
Grp Sat Flow(s),veh/h/ln	650	1683	1683	1726	1567	0
Q Serve(g_s), s	0.2	3.9	3.0	3.0	2.0	0.0
Cycle Q Clear(g_c), s	3.2	3.9	3.0	3.0	2.0	0.0
Prop In Lane	1.00			0.15	0.87	0.13
Lane Grp Cap(c), veh/h	569	1799	900	922	200	0
V/C Ratio(X)	0.01	0.49	0.40	0.40	0.71	0.00
Avail Cap(c_a), veh/h	1348	5831	2915	2989	2051	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	4.2	3.5	3.3	3.3	9.9	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.3	0.3	4.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.1	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.2	3.7	3.5	3.5	14.4	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		881	728		141	
Approach Delay, s/veh		3.7	3.5		14.4	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				16.7	7.0	16.7
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				41.0	31.0	41.0
Max Q Clear Time (g_c+I1), s				5.9	4.0	5.0
Green Ext Time (p_c), s				6.8	0.4	4.7
Intersection Summary						
HCM 6th Ctrl Delay			4.5			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

Gateway Downtown San Bernardino
3: I-215 SB Ramps & 5th St.

Existing (2022) Conditions
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑		↔↔	↑↑					↔	↔	↔
Traffic Volume (veh/h)	0	522	393	362	488	0	0	0	0	687	13	182
Future Volume (veh/h)	0	522	393	362	488	0	0	0	0	687	13	182
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1772	1772	1575	1772	0				1673	1673	1673
Adj Flow Rate, veh/h	0	538	405	373	503	0				772	0	130
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	2040	670	420	2126	0				853	0	379
Arrive On Green	0.00	0.45	0.45	0.29	1.00	0.00				0.27	0.00	0.27
Sat Flow, veh/h	0	4820	1502	2910	3455	0				3188	0	1418
Grp Volume(v), veh/h	0	538	405	373	503	0				772	0	130
Grp Sat Flow(s),veh/h/ln	0	1524	1502	1455	1683	0				1594	0	1418
Q Serve(g_s), s	0.0	8.1	22.5	13.5	0.0	0.0				25.8	0.0	8.1
Cycle Q Clear(g_c), s	0.0	8.1	22.5	13.5	0.0	0.0				25.8	0.0	8.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2040	670	420	2126	0				853	0	379
V/C Ratio(X)	0.00	0.26	0.60	0.89	0.24	0.00				0.91	0.00	0.34
Avail Cap(c_a), veh/h	0	2040	670	569	2126	0				1310	0	583
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.93	0.93	0.96	0.96	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	19.1	23.1	38.3	0.0	0.0				38.9	0.0	32.5
Incr Delay (d2), s/veh	0.0	0.3	3.7	9.9	0.3	0.0				4.5	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	8.2	4.5	0.1	0.0				10.2	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.4	26.8	48.2	0.3	0.0				43.4	0.0	32.7
LnGrp LOS		A	B	C	D	A	A			D	A	C
Approach Vol, veh/h		943			876					902		
Approach Delay, s/veh		22.6			20.7					41.9		
Approach LOS		C			C					D		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	30.4	54.4	35.2		74.8							
Change Period (Y+Rc), s	4.5	5.3	5.8		5.3							
Max Green Setting (Gmax), s	1.5	27.7	45.2		53.7							
Max Q Clear Time (g_c+11), s	11.5	24.5	27.8		2.0							
Green Ext Time (p_c), s	0.4	1.4	1.7		2.2							

Intersection Summary

HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

Existing (2022) Conditions
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑			↑↑↑↑	↖	↖	↕	↖			
Traffic Volume (veh/h)	162	1047	0	0	602	199	248	2	582	0	0	0
Future Volume (veh/h)	162	1047	0	0	602	199	248	2	582	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1575	1772	0	0	1772	1772	1673	1673	1772			
Adj Flow Rate, veh/h	174	1126	0	0	647	214	179	0	722			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	226	2118	0	0	3085	750	430	0	803			
Arrive On Green	0.03	0.21	0.00	0.00	0.51	0.51	0.27	0.00	0.27			
Sat Flow, veh/h	2910	3455	0	0	6343	1482	1594	0	2975			
Grp Volume(v), veh/h	174	1126	0	0	647	214	179	0	722			
Grp Sat Flow(s),veh/h/ln	1455	1683	0	0	1524	1482	1594	0	1488			
Q Serve(g_s), s	6.5	32.8	0.0	0.0	6.5	9.2	10.2	0.0	25.7			
Cycle Q Clear(g_c), s	6.5	32.8	0.0	0.0	6.5	9.2	10.2	0.0	25.7			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	226	2118	0	0	3085	750	430	0	803			
V/C Ratio(X)	0.77	0.53	0.00	0.00	0.21	0.29	0.42	0.00	0.90			
Avail Cap(c_a), veh/h	265	2118	0	0	3085	750	785	0	1466			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.84	0.84	0.00	0.00	0.93	0.93	1.00	0.00	1.00			
Uniform Delay (d), s/veh	52.6	29.1	0.0	0.0	15.0	15.7	33.0	0.0	38.7			
Incr Delay (d2), s/veh	7.7	0.8	0.0	0.0	0.1	0.9	0.2	0.0	1.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.7	14.9	0.0	0.0	2.2	3.1	3.9	0.0	9.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	29.9	0.0	0.0	15.1	16.6	33.3	0.0	40.3			
LnGrp LOS	E	C	A	A	B	B	C	A	D			
Approach Vol, veh/h		1300			861			901				
Approach Delay, s/veh		34.0			15.5			38.9				
Approach LOS		C			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		74.5			13.5	61.0		35.5				
Change Period (Y+Rc), s		5.3			5.0	5.3		5.8				
Max Green Setting (Gmax), s		44.7			10.0	29.7		54.2				
Max Q Clear Time (g_c+I1), s		34.8			8.5	11.2		27.7				
Green Ext Time (p_c), s		3.8			0.0	3.0		1.9				

Intersection Summary

HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
5: H St. & 5th St.

Existing (2022) Conditions
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	1412	110	2	586	22	51	71	8	32	109	164
Future Volume (veh/h)	107	1412	110	2	586	22	51	71	8	32	109	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	119	1569	122	2	651	24	57	79	9	36	121	182
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	1989	974	4	1658	61	300	468	52	335	519	371
Arrive On Green	0.09	0.59	0.59	0.00	0.50	0.50	0.06	0.15	0.15	0.06	0.15	0.15
Sat Flow, veh/h	1594	3367	1499	1594	3311	122	1594	3050	342	1594	3367	1502
Grp Volume(v), veh/h	119	1569	122	2	331	344	57	43	45	36	121	182
Grp Sat Flow(s),veh/h/ln	1594	1683	1499	1594	1683	1750	1594	1683	1708	1594	1683	1502
Q Serve(g_s), s	6.1	29.6	2.6	0.1	10.1	10.1	2.4	1.8	1.9	1.5	2.6	8.6
Cycle Q Clear(g_c), s	6.1	29.6	2.6	0.1	10.1	10.1	2.4	1.8	1.9	1.5	2.6	8.6
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	148	1989	974	4	843	876	300	258	262	335	519	371
V/C Ratio(X)	0.80	0.79	0.13	0.46	0.39	0.39	0.19	0.17	0.17	0.11	0.23	0.49
Avail Cap(c_a), veh/h	307	1989	974	115	843	876	320	771	783	354	1542	827
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	13.0	5.5	41.3	12.9	12.9	26.7	30.5	30.5	26.3	30.8	26.8
Incr Delay (d2), s/veh	9.8	3.3	0.3	61.6	1.4	1.3	0.3	0.3	0.3	0.1	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	9.9	0.7	0.1	3.7	3.8	0.9	0.7	0.8	0.6	1.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	16.3	5.8	102.9	14.2	14.2	27.0	30.8	30.8	26.4	31.0	27.8
LnGrp LOS	D	B	A	F	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1810			677			145			339	
Approach Delay, s/veh		17.6			14.5			29.3			28.8	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	16.7	4.2	53.0	8.9	16.8	11.7	45.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	38.0	6.0	49.0	6.0	38.0	16.0	39.0				
Max Q Clear Time (g_c+1), s	13.5	3.9	2.1	31.6	4.4	10.6	8.1	12.1				
Green Ext Time (p_c), s	0.0	0.4	0.0	10.9	0.0	1.3	0.2	4.1				
Intersection Summary												
HCM 6th Ctrl Delay				18.7								
HCM 6th LOS				B								

Gateway Downtown San Bernardino
6: G St. & 5th St.

Existing (2022) Conditions
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	1356	19	10	529	33	5	24	3	35	70	51
Future Volume (veh/h)	79	1356	19	10	529	33	5	24	3	35	70	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1673	1772	1673	1673	1772
Adj Flow Rate, veh/h	87	1490	21	11	581	36	5	26	3	38	77	56
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	621	2558	36	291	2423	150	97	298	33	133	164	117
Arrive On Green	0.75	0.75	0.75	0.75	0.75	0.75	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	720	3398	48	310	3219	199	193	2563	285	435	1409	1006
Grp Volume(v), veh/h	87	737	774	11	303	314	19	0	15	97	0	74
Grp Sat Flow(s),veh/h/ln	720	1683	1763	310	1683	1735	1578	0	1463	1514	0	1336
Q Serve(g_s), s	2.5	11.8	11.8	1.0	3.3	3.3	0.0	0.0	0.6	1.8	0.0	3.2
Cycle Q Clear(g_c), s	5.9	11.8	11.8	12.8	3.3	3.3	0.6	0.0	0.6	3.6	0.0	3.2
Prop In Lane	1.00		0.03	1.00		0.11	0.27		0.20	0.39		0.75
Lane Grp Cap(c), veh/h	621	1267	1327	291	1267	1306	258	0	170	258	0	155
V/C Ratio(X)	0.14	0.58	0.58	0.04	0.24	0.24	0.07	0.00	0.09	0.37	0.00	0.48
Avail Cap(c_a), veh/h	621	1267	1327	291	1267	1306	715	0	623	710	0	568
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.2	3.3	3.3	6.2	2.3	2.3	24.1	0.0	24.1	25.4	0.0	25.3
Incr Delay (d2), s/veh	0.5	2.0	1.9	0.2	0.4	0.4	0.1	0.0	0.2	0.9	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln0.3	1.8	1.9	0.1	0.5	0.5	0.2	0.0	0.0	0.2	1.3	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.6	5.3	5.2	6.4	2.7	2.7	24.2	0.0	24.3	26.3	0.0	27.5
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1598			628			34			171	
Approach Delay, s/veh		5.2			2.8			24.3			26.8	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.1		50.0		11.1		50.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		46.0		26.0		46.0				
Max Q Clear Time (g_c+I1), s		2.6		13.8		5.6		14.8				
Green Ext Time (p_c), s		0.1		14.1		0.8		4.0				
Intersection Summary												
HCM 6th Ctrl Delay				6.3								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
7: F St. & 5th St.

Existing (2022) Conditions
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	1312	6	5	535	19	2	22	8	8	16	28
Future Volume (veh/h)	64	1312	6	5	535	19	2	22	8	8	16	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.96	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1673	1772	1673	1673	1772
Adj Flow Rate, veh/h	70	1442	7	5	588	21	2	24	9	9	18	31
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	646	2654	13	321	2561	91	74	202	70	106	120	118
Arrive On Green	0.77	0.77	0.77	0.77	0.77	0.77	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	725	3436	17	329	3315	118	74	2172	750	277	1288	1264
Grp Volume(v), veh/h	70	706	743	5	298	311	19	0	16	27	0	31
Grp Sat Flow(s),veh/h/ln	725	1683	1769	329	1683	1750	1645	0	1351	1565	0	1264
Q Serve(g_s), s	1.8	9.8	9.8	0.4	2.9	2.9	0.0	0.0	0.7	0.0	0.0	1.4
Cycle Q Clear(g_c), s	4.7	9.8	9.8	10.2	2.9	2.9	0.6	0.0	0.7	0.9	0.0	1.4
Prop In Lane	1.00		0.01	1.00		0.07	0.11		0.55	0.33		1.00
Lane Grp Cap(c), veh/h	646	1300	1366	321	1300	1352	220	0	126	226	0	118
V/C Ratio(X)	0.11	0.54	0.54	0.02	0.23	0.23	0.09	0.00	0.13	0.12	0.00	0.26
Avail Cap(c_a), veh/h	646	1300	1366	321	1300	1352	772	0	590	735	0	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	2.5	2.7	2.7	4.7	1.9	1.9	24.8	0.0	24.8	24.9	0.0	25.1
Incr Delay (d2), s/veh	0.3	1.6	1.6	0.1	0.4	0.4	0.2	0.0	0.5	0.2	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.1	1.1	0.0	0.3	0.3	0.2	0.0	0.2	0.3	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.9	4.3	4.2	4.7	2.3	2.3	24.9	0.0	25.2	25.1	0.0	26.3
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1519			614			35			58	
Approach Delay, s/veh		4.2			2.3			25.1			25.7	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		9.6		50.0		9.6		50.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		46.0		26.0		46.0				
Max Q Clear Time (g_c+I1), s		2.7		11.8		3.4		12.2				
Green Ext Time (p_c), s		0.1		13.3		0.2		3.8				
Intersection Summary												
HCM 6th Ctrl Delay				4.6								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
8: E St. & 5th St.

Existing (2022) Conditions
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	1229	31	29	539	12	8	102	24	32	147	24
Future Volume (veh/h)	73	1229	31	29	539	12	8	102	24	32	147	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	78	1307	33	31	573	13	9	109	26	34	156	26
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	497	1953	49	244	1959	44	19	228	54	59	282	47
Arrive On Green	0.58	0.58	0.58	0.58	0.58	0.58	0.01	0.17	0.17	0.04	0.19	0.19
Sat Flow, veh/h	740	3355	85	365	3365	76	1594	1374	328	1594	1474	246
Grp Volume(v), veh/h	78	655	685	31	286	300	9	0	135	34	0	182
Grp Sat Flow(s),veh/h/ln	740	1683	1756	365	1683	1758	1594	0	1701	1594	0	1720
Q Serve(g_s), s	3.3	14.9	14.9	3.5	4.8	4.8	0.3	0.0	4.0	1.2	0.0	5.3
Cycle Q Clear(g_c), s	8.1	14.9	14.9	18.4	4.8	4.8	0.3	0.0	4.0	1.2	0.0	5.3
Prop In Lane	1.00		0.05	1.00		0.04	1.00		0.19	1.00		0.14
Lane Grp Cap(c), veh/h	497	980	1023	244	980	1023	19	0	282	59	0	329
V/C Ratio(X)	0.16	0.67	0.67	0.13	0.29	0.29	0.48	0.00	0.48	0.58	0.00	0.55
Avail Cap(c_a), veh/h	497	980	1023	244	980	1023	171	0	899	171	0	909
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	7.9	8.0	8.0	14.3	5.9	5.9	27.4	0.0	21.1	26.5	0.0	20.4
Incr Delay (d2), s/veh	0.7	3.6	3.5	1.1	0.8	0.7	18.2	0.0	1.3	8.8	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.4	4.5	0.3	1.3	1.3	0.2	0.0	1.5	0.5	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.6	11.6	11.5	15.4	6.6	6.6	45.6	0.0	22.3	35.2	0.0	21.9
LnGrp LOS	A	B	B	B	A	A	D	A	C	D	A	C
Approach Vol, veh/h		1418			617			144			216	
Approach Delay, s/veh		11.4			7.1			23.8			24.0	
Approach LOS		B			A			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	13.3		36.5	4.7	14.7		36.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	6.0	29.5		32.5	6.0	29.5		32.5				
Max Q Clear Time (g_c+1), s	13.2	6.0		16.9	2.3	7.3		20.4				
Green Ext Time (p_c), s	0.0	0.6		8.2	0.0	0.9		3.0				
Intersection Summary												
HCM 6th Ctrl Delay											12.1	
HCM 6th LOS											B	

Gateway Downtown San Bernardino
9: D St. & 5th St.

Existing (2022) Conditions
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖ ↗		↖ ↗	↖ ↗		↖ ↗	↖ ↗		↖ ↗	↖ ↗	
Traffic Volume (veh/h)	52	1032	76	28	554	31	23	49	15	23	93	23
Future Volume (veh/h)	52	1032	76	28	554	31	23	49	15	23	93	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.97	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	56	1110	82	30	596	33	25	53	16	25	100	25
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	587	2294	169	359	2341	129	244	376	108	267	394	95
Arrive On Green	0.72	0.72	0.72	0.72	0.72	0.72	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	712	3178	235	420	3243	179	1119	2563	735	1163	2680	647
Grp Volume(v), veh/h	56	588	604	30	309	320	25	34	35	25	61	64
Grp Sat Flow(s),veh/h/ln	712	1683	1729	420	1683	1739	1119	1683	1614	1163	1683	1643
Q Serve(g_s), s	1.8	9.1	9.1	2.0	3.8	3.8	1.2	1.1	1.2	1.2	2.0	2.1
Cycle Q Clear(g_c), s	5.6	9.1	9.1	11.1	3.8	3.8	3.3	1.1	1.2	2.3	2.0	2.1
Prop In Lane	1.00		0.14	1.00		0.10	1.00		0.46	1.00		0.39
Lane Grp Cap(c), veh/h	587	1215	1248	359	1215	1255	244	247	237	267	247	241
V/C Ratio(X)	0.10	0.48	0.48	0.08	0.25	0.25	0.10	0.14	0.15	0.09	0.25	0.26
Avail Cap(c_a), veh/h	587	1215	1248	359	1215	1255	594	773	742	630	773	755
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.8	3.6	3.6	6.0	2.9	2.9	24.6	22.6	22.7	23.7	23.0	23.1
Incr Delay (d2), s/veh	0.3	1.4	1.3	0.5	0.5	0.5	0.2	0.2	0.3	0.2	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.7	1.7	0.2	0.7	0.7	0.3	0.4	0.4	0.3	0.7	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.2	5.0	5.0	6.5	3.4	3.4	24.7	22.9	23.0	23.8	23.5	23.6
LnGrp LOS	A	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		1248			659			94			150	
Approach Delay, s/veh		4.9			3.5			23.4			23.6	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.0		48.0		13.0		48.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		28.0		44.0		28.0		44.0				
Max Q Clear Time (g_c+I1), s		5.3		11.1		4.3		13.1				
Green Ext Time (p_c), s		0.4		9.8		0.7		4.4				
Intersection Summary												
HCM 6th Ctrl Delay				6.6								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
10: Arrowhead Ave. & 5th St.





















Existing (2022) Conditions
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	799	179	54	556	37	42	86	29	24	185	32
Future Volume (veh/h)	64	799	179	54	556	37	42	86	29	24	185	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	72	898	201	61	625	42	47	97	33	27	208	36
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	547	1907	427	369	2234	150	225	429	139	270	495	84
Arrive On Green	0.70	0.70	0.70	0.70	0.70	0.70	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	688	2732	611	459	3201	215	1014	2490	809	1119	2876	489
Grp Volume(v), veh/h	72	553	546	61	328	339	47	64	66	27	120	124
Grp Sat Flow(s),veh/h/ln	688	1683	1660	459	1683	1733	1014	1683	1616	1119	1683	1682
Q Serve(g_s), s	2.7	9.1	9.1	4.3	4.5	4.5	2.7	2.0	2.2	1.3	3.9	4.0
Cycle Q Clear(g_c), s	7.2	9.1	9.1	13.4	4.5	4.5	6.7	2.0	2.2	3.5	3.9	4.0
Prop In Lane	1.00		0.37	1.00		0.12	1.00		0.50	1.00		0.29
Lane Grp Cap(c), veh/h	547	1175	1159	369	1175	1210	225	290	278	270	290	290
V/C Ratio(X)	0.13	0.47	0.47	0.17	0.28	0.28	0.21	0.22	0.24	0.10	0.41	0.43
Avail Cap(c_a), veh/h	547	1175	1159	369	1175	1210	528	792	761	604	792	792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.8	4.2	4.2	7.2	3.5	3.5	25.8	21.9	22.0	23.5	22.7	22.8
Incr Delay (d2), s/veh	0.5	1.4	1.4	1.0	0.6	0.6	0.5	0.4	0.4	0.2	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.9	1.9	0.4	0.9	1.0	0.6	0.8	0.8	0.3	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.3	5.5	5.6	8.2	4.1	4.1	26.2	22.3	22.4	23.7	23.7	23.8
LnGrp LOS	A	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		1171			728			177			271	
Approach Delay, s/veh		5.5			4.4			23.4			23.7	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		14.6		47.0		14.6		47.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		29.0		43.0		29.0		43.0				
Max Q Clear Time (g_c+I1), s		8.7		11.1		6.0		15.4				
Green Ext Time (p_c), s		0.8		9.0		1.3		5.0				
Intersection Summary												
HCM 6th Ctrl Delay				8.6								
HCM 6th LOS				A								

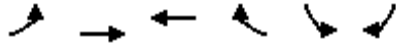
Gateway Downtown San Bernardino
1: Mt. Vernon Ave. & 5th St.

Existing Conditions
Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	565	108	58	608	151	136	600	88	115	411	90
Future Volume (veh/h)	106	565	108	58	608	151	136	600	88	115	411	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	112	595	114	61	640	159	143	632	93	121	433	95
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	1142	218	80	987	245	300	1086	160	232	1013	220
Arrive On Green	0.09	0.41	0.41	0.05	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1594	2809	537	1594	2670	662	782	2937	431	652	2740	596
Grp Volume(v), veh/h	112	356	353	61	403	396	143	362	363	121	265	263
Grp Sat Flow(s),veh/h/ln	1594	1683	1663	1594	1683	1649	782	1683	1685	652	1683	1653
Q Serve(g_s), s	4.8	11.0	11.0	2.6	13.7	13.7	11.6	11.9	11.9	12.6	8.1	8.2
Cycle Q Clear(g_c), s	4.8	11.0	11.0	2.6	13.7	13.7	19.8	11.9	11.9	24.6	8.1	8.2
Prop In Lane	1.00		0.32	1.00		0.40	1.00		0.26	1.00		0.36
Lane Grp Cap(c), veh/h	138	684	676	80	622	610	300	622	623	232	622	611
V/C Ratio(X)	0.81	0.52	0.52	0.77	0.65	0.65	0.48	0.58	0.58	0.52	0.43	0.43
Avail Cap(c_a), veh/h	162	684	676	162	622	610	300	622	623	232	622	611
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	15.4	15.4	32.4	18.0	18.0	23.7	17.5	17.5	27.3	16.3	16.3
Incr Delay (d2), s/veh	22.8	2.8	2.9	14.1	5.2	5.3	1.2	1.4	1.4	2.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	4.2	4.1	1.3	5.5	5.4	2.0	4.3	4.3	1.9	2.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	18.2	18.3	46.5	23.2	23.3	24.9	18.8	18.9	29.4	16.7	16.8
LnGrp LOS	D	B	B	D	C	C	C	B	B	C	B	B
Approach Vol, veh/h		821			860			868			649	
Approach Delay, s/veh		23.1			24.9			19.8			19.1	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.5	7.4	32.0		29.5	10.0	29.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		25.5	7.0	25.5		25.5	7.0	25.5				
Max Q Clear Time (g_c+I1), s		21.8	4.6	13.0		26.6	6.8	15.7				
Green Ext Time (p_c), s		1.8	0.0	3.3		0.0	0.0	3.3				
Intersection Summary												
HCM 6th Ctrl Delay			21.9									
HCM 6th LOS			C									

Gateway Downtown San Bernardino
2: 3/5th St. & J St.

Existing Conditions
Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	864	940	116	91	6
Future Volume (veh/h)	12	864	940	116	91	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1772	1673	1673
Adj Flow Rate, veh/h	12	873	949	117	92	6
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	444	2692	2412	297	117	8
Arrive On Green	0.80	0.80	0.80	0.80	0.08	0.08
Sat Flow, veh/h	474	3455	3105	372	1471	96
Grp Volume(v), veh/h	12	873	530	536	99	0
Grp Sat Flow(s),veh/h/ln	474	1683	1683	1705	1583	0
Q Serve(g_s), s	0.5	4.6	6.1	6.1	4.1	0.0
Cycle Q Clear(g_c), s	6.6	4.6	6.1	6.1	4.1	0.0
Prop In Lane	1.00			0.22	0.93	0.06
Lane Grp Cap(c), veh/h	444	2692	1346	1363	126	0
V/C Ratio(X)	0.03	0.32	0.39	0.39	0.79	0.00
Avail Cap(c_a), veh/h	444	2692	1346	1363	693	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	2.9	1.8	1.9	1.9	29.9	0.0
Incr Delay (d2), s/veh	0.1	0.3	0.9	0.9	10.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.6	0.6	1.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.0	2.1	2.8	2.8	40.2	0.0
LnGrp LOS	A	A	A	A	D	A
Approach Vol, veh/h		885	1066		99	
Approach Delay, s/veh		2.1	2.8		40.2	
Approach LOS		A	A		D	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				57.0	9.3	57.0
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				53.0	29.0	53.0
Max Q Clear Time (g_c+I1), s				8.6	6.1	8.1
Green Ext Time (p_c), s				7.1	0.2	8.1
Intersection Summary						
HCM 6th Ctrl Delay			4.3			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

Gateway Downtown San Bernardino
3: I-215 SB Ramps & 5th St.

Existing Conditions
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑		↔↔	↑↑					↔	↔	↔
Traffic Volume (veh/h)	0	612	343	513	872	0	0	0	0	254	5	184
Future Volume (veh/h)	0	612	343	513	872	0	0	0	0	254	5	184
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1772	1772	1575	1772	0				1673	1673	1772
Adj Flow Rate, veh/h	0	624	350	523	890	0				320	0	127
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	2246	738	606	2524	0				405	0	190
Arrive On Green	0.00	0.49	0.49	0.07	0.25	0.00				0.13	0.00	0.13
Sat Flow, veh/h	0	4820	1502	2910	3455	0				3188	0	1498
Grp Volume(v), veh/h	0	624	350	523	890	0				320	0	127
Grp Sat Flow(s),veh/h/ln	0	1524	1502	1455	1683	0				1594	0	1498
Q Serve(g_s), s	0.0	7.2	13.9	16.0	19.6	0.0				8.8	0.0	7.3
Cycle Q Clear(g_c), s	0.0	7.2	13.9	16.0	19.6	0.0				8.8	0.0	7.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2246	738	606	2524	0				405	0	190
V/C Ratio(X)	0.00	0.28	0.47	0.86	0.35	0.00				0.79	0.00	0.67
Avail Cap(c_a), veh/h	0	2246	738	857	2524	0				786	0	370
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.95	0.95	0.88	0.88	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.5	15.2	40.6	15.9	0.0				38.1	0.0	37.5
Incr Delay (d2), s/veh	0.0	0.3	2.1	4.3	0.3	0.0				1.3	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.3	4.7	6.5	8.8	0.0				3.4	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	13.8	17.3	45.0	16.2	0.0				39.4	0.0	39.0
LnGrp LOS		A	B	D	B	A				D	A	D
Approach Vol, veh/h		974			1413						447	
Approach Delay, s/veh		15.0			26.8						39.3	
Approach LOS		B			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	33.3	49.5		17.2		72.8						
Change Period (Y+Rc), s	4.5	5.3		5.8		5.3						
Max Green Setting (Gmax), s	26.5	25.7		22.2		56.7						
Max Q Clear Time (g_c+11g), s	11.0	15.9		10.8		21.6						
Green Ext Time (p_c), s	0.7	3.1		0.7		4.2						

Intersection Summary

HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

Existing Conditions
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑	↔	↔	↔	↔			
Traffic Volume (veh/h)	219	647	0	0	999	700	386	2	450	0	0	0
Future Volume (veh/h)	219	647	0	0	999	700	386	2	450	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1575	1772	0	0	1772	1772	1673	1673	1772			
Adj Flow Rate, veh/h	226	667	0	0	1030	722	553	0	299			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	259	2177	0	0	3061	750	733	0	342			
Arrive On Green	0.18	1.00	0.00	0.00	0.50	0.50	0.23	0.00	0.23			
Sat Flow, veh/h	2910	3455	0	0	6343	1494	3188	0	1488			
Grp Volume(v), veh/h	226	667	0	0	1030	722	553	0	299			
Grp Sat Flow(s),veh/h/ln	1455	1683	0	0	1524	1494	1594	0	1488			
Q Serve(g_s), s	6.8	0.0	0.0	0.0	9.1	41.9	14.5	0.0	17.4			
Cycle Q Clear(g_c), s	6.8	0.0	0.0	0.0	9.1	41.9	14.5	0.0	17.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	259	2177	0	0	3061	750	733	0	342			
V/C Ratio(X)	0.87	0.31	0.00	0.00	0.34	0.96	0.75	0.00	0.87			
Avail Cap(c_a), veh/h	259	2177	0	0	3061	750	999	0	466			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.91	0.91	0.00	0.00	0.41	0.41	1.00	0.00	1.00			
Uniform Delay (d), s/veh	36.5	0.0	0.0	0.0	13.4	21.6	32.3	0.0	33.4			
Incr Delay (d2), s/veh	23.7	0.3	0.0	0.0	0.1	13.8	1.3	0.0	10.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/lr	3.0	0.1	0.0	0.0	2.8	15.6	5.5	0.0	6.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	0.3	0.0	0.0	13.5	35.4	33.6	0.0	43.8			
LnGrp LOS	E	A	A	A	B	D	C	A	D			
Approach Vol, veh/h		893			1752			852				
Approach Delay, s/veh		15.5			22.5			37.2				
Approach LOS		B			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		63.5			13.0	50.5		26.5				
Change Period (Y+Rc), s		5.3			5.0	5.3		5.8				
Max Green Setting (Gmax), s		50.7			8.0	37.7		28.2				
Max Q Clear Time (g_c+I1), s		2.0			8.8	43.9		19.4				
Green Ext Time (p_c), s		3.0			0.0	0.0		1.3				

Intersection Summary

HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
5: H St. & 5th St.

Existing Conditions
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	807	87	5	1146	47	222	178	38	22	82	331
Future Volume (veh/h)	203	807	87	5	1146	47	222	178	38	22	82	331
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	211	841	91	5	1194	49	231	185	40	23	85	345
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	1670	841	10	1215	50	386	726	153	384	847	572
Arrive On Green	0.13	0.50	0.50	0.01	0.37	0.37	0.07	0.26	0.26	0.06	0.25	0.25
Sat Flow, veh/h	1594	3367	1492	1594	3295	135	1594	2762	584	1594	3367	1474
Grp Volume(v), veh/h	211	841	91	5	610	633	231	111	114	23	85	345
Grp Sat Flow(s),veh/h/ln	1594	1683	1492	1594	1683	1747	1594	1683	1663	1594	1683	1474
Q Serve(g_s), s	11.8	15.0	2.5	0.3	32.1	32.1	6.0	4.7	4.9	0.9	1.7	16.8
Cycle Q Clear(g_c), s	11.8	15.0	2.5	0.3	32.1	32.1	6.0	4.7	4.9	0.9	1.7	16.8
Prop In Lane	1.00		1.00	1.00		0.08	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	214	1670	841	10	621	644	386	442	437	384	847	572
V/C Ratio(X)	0.99	0.50	0.11	0.48	0.98	0.98	0.60	0.25	0.26	0.06	0.10	0.60
Avail Cap(c_a), veh/h	214	1670	841	107	621	644	386	715	706	402	1429	827
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	15.1	9.1	44.3	28.0	28.0	25.7	26.1	26.1	21.9	25.7	22.1
Incr Delay (d2), s/veh	57.9	1.1	0.3	30.6	32.0	31.6	2.6	0.3	0.3	0.1	0.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	5.4	0.8	0.2	17.3	17.9	1.6	1.8	1.9	0.3	0.7	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	96.5	16.2	9.4	74.9	60.0	59.6	28.3	26.3	26.4	21.9	25.8	23.1
LnGrp LOS	F	B	A	E	E	E	C	C	C	C	C	C
Approach Vol, veh/h		1143			1248			456			453	
Approach Delay, s/veh		30.5			59.9			27.4			23.5	
Approach LOS		C			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	27.5	4.6	48.4	10.0	26.5	16.0	37.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	38.0	6.0	39.0	6.0	38.0	12.0	33.0				
Max Q Clear Time (g_c+1/2g), s	6.9	6.9	2.3	17.0	8.0	18.8	13.8	34.1				
Green Ext Time (p_c), s	0.0	1.2	0.0	6.0	0.0	1.6	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay											40.2	
HCM 6th LOS											D	

Gateway Downtown San Bernardino
6: G St. & 5th St.

Existing Conditions
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	727	21	10	1105	112	13	108	15	74	105	97
Future Volume (veh/h)	90	727	21	10	1105	112	13	108	15	74	105	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1673	1772	1673	1673	1772
Adj Flow Rate, veh/h	92	742	21	10	1128	114	13	110	15	76	107	99
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	314	2391	68	492	2207	223	80	465	61	166	196	182
Arrive On Green	0.72	0.72	0.72	0.72	0.72	0.72	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	401	3343	95	628	3086	311	135	2573	337	530	1084	1008
Grp Volume(v), veh/h	92	374	389	10	615	627	73	0	65	152	0	130
Grp Sat Flow(s),veh/h/ln	401	1683	1754	628	1683	1714	1592	0	1454	1302	0	1321
Q Serve(g_s), s	10.3	6.2	6.2	0.5	12.6	12.6	0.0	0.0	2.9	5.6	0.0	6.9
Cycle Q Clear(g_c), s	22.9	6.2	6.2	6.7	12.6	12.6	2.9	0.0	2.9	8.6	0.0	6.9
Prop In Lane	1.00		0.05	1.00		0.18	0.18		0.23	0.50		0.76
Lane Grp Cap(c), veh/h	314	1204	1255	492	1204	1226	343	0	263	305	0	239
V/C Ratio(X)	0.29	0.31	0.31	0.02	0.51	0.51	0.21	0.00	0.25	0.50	0.00	0.54
Avail Cap(c_a), veh/h	314	1204	1255	492	1204	1226	600	0	510	535	0	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.1	4.0	4.0	5.2	4.9	4.9	27.0	0.0	27.0	29.3	0.0	28.6
Incr Delay (d2), s/veh	2.4	0.7	0.6	0.1	1.5	1.5	0.3	0.0	0.5	1.3	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.5	1.6	0.1	3.2	3.2	1.1	0.0	1.0	2.6	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.4	4.7	4.7	5.3	6.5	6.4	27.3	0.0	27.5	30.6	0.0	30.5
LnGrp LOS	B	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		855			1252			138			282	
Approach Delay, s/veh		5.5			6.4			27.4			30.6	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		17.9		59.0		17.9		59.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		27.0		55.0		27.0		55.0				
Max Q Clear Time (g_c+I1), s		4.9		24.9		10.6		14.6				
Green Ext Time (p_c), s		0.6		6.7		1.4		10.4				
Intersection Summary												
HCM 6th Ctrl Delay				10.0								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
7: F St. & 5th St.

Existing Conditions
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	720	31	17	1112	23	22	39	30	17	54	67
Future Volume (veh/h)	62	720	31	17	1112	23	22	39	30	17	54	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.97	0.98		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1673	1772	1673	1673	1772
Adj Flow Rate, veh/h	64	742	32	18	1146	24	23	40	31	18	56	69
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	380	2530	109	538	2595	54	116	147	110	88	162	149
Arrive On Green	0.77	0.77	0.77	0.77	0.77	0.77	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	429	3288	142	623	3372	71	357	1238	928	214	1368	1257
Grp Volume(v), veh/h	64	380	394	18	572	598	50	0	44	74	0	69
Grp Sat Flow(s),veh/h/ln	429	1683	1746	623	1683	1759	1204	0	1318	1582	0	1257
Q Serve(g_s), s	4.4	4.8	4.8	0.6	8.5	8.5	0.1	0.0	2.2	0.0	0.0	3.7
Cycle Q Clear(g_c), s	12.9	4.8	4.8	5.4	8.5	8.5	3.7	0.0	2.2	2.9	0.0	3.7
Prop In Lane	1.00		0.08	1.00		0.04	0.46		0.70	0.24		1.00
Lane Grp Cap(c), veh/h	380	1296	1344	538	1296	1354	216	0	156	250	0	149
V/C Ratio(X)	0.17	0.29	0.29	0.03	0.44	0.44	0.23	0.00	0.28	0.30	0.00	0.46
Avail Cap(c_a), veh/h	380	1296	1344	538	1296	1354	570	0	498	643	0	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.1	2.4	2.4	3.3	2.9	2.9	28.6	0.0	28.7	29.1	0.0	29.4
Incr Delay (d2), s/veh	1.0	0.6	0.6	0.1	1.1	1.0	0.5	0.0	1.0	0.7	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.8	0.8	0.1	1.5	1.5	0.8	0.0	0.7	1.1	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.1	3.0	3.0	3.4	4.0	3.9	29.2	0.0	29.7	29.7	0.0	31.6
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		838			1188			94			143	
Approach Delay, s/veh		3.2			3.9			29.4			30.6	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		12.5		59.0		12.5		59.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		27.0		55.0		27.0		55.0				
Max Q Clear Time (g_c+I1), s		5.7		14.9		5.7		10.5				
Green Ext Time (p_c), s		0.4		6.4		0.7		9.6				
Intersection Summary												
HCM 6th Ctrl Delay				6.4								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
8: E St. & 5th St.

Existing Conditions
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↖		↖	↖	
Traffic Volume (veh/h)	34	689	46	37	1033	17	77	304	29	34	186	49
Future Volume (veh/h)	34	689	46	37	1033	17	77	304	29	34	186	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	35	710	47	38	1065	18	79	313	30	35	192	51
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	1724	114	361	1825	31	142	402	39	56	268	71
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.09	0.25	0.25	0.04	0.20	0.20
Sat Flow, veh/h	465	3199	212	633	3387	57	1594	1588	152	1594	1343	357
Grp Volume(v), veh/h	35	373	384	38	529	554	79	0	343	35	0	243
Grp Sat Flow(s),veh/h/ln	465	1683	1728	633	1683	1761	1594	0	1741	1594	0	1700
Q Serve(g_s), s	3.8	9.1	9.2	2.6	14.7	14.7	3.3	0.0	12.8	1.5	0.0	9.3
Cycle Q Clear(g_c), s	18.5	9.1	9.2	11.8	14.7	14.7	3.3	0.0	12.8	1.5	0.0	9.3
Prop In Lane	1.00		0.12	1.00		0.03	1.00		0.09	1.00		0.21
Lane Grp Cap(c), veh/h	256	907	931	361	907	949	142	0	441	56	0	339
V/C Ratio(X)	0.14	0.41	0.41	0.11	0.58	0.58	0.56	0.00	0.78	0.62	0.00	0.72
Avail Cap(c_a), veh/h	256	907	931	361	907	949	229	0	863	137	0	745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.0	9.5	9.5	13.0	10.8	10.8	30.4	0.0	24.2	33.1	0.0	26.0
Incr Delay (d2), s/veh	1.1	1.4	1.3	0.6	2.7	2.6	3.4	0.0	3.0	10.7	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.0	3.1	0.4	5.0	5.2	1.3	0.0	5.1	0.7	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	10.9	10.9	13.6	13.5	13.4	33.8	0.0	27.2	43.8	0.0	28.8
LnGrp LOS	B	B	B	B	B	B	C	A	C	D	A	C
Approach Vol, veh/h		792			1121			422			278	
Approach Delay, s/veh		11.2			13.5			28.4			30.7	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.5	21.6		41.5	10.2	17.9		41.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	6.0	34.5		37.5	10.0	30.5		37.5				
Max Q Clear Time (g_c+1), s	13.5	14.8		20.5	5.3	11.3		16.7				
Green Ext Time (p_c), s	0.0	1.8		4.5	0.1	1.2		7.2				
Intersection Summary												
HCM 6th Ctrl Delay				17.0								
HCM 6th LOS				B								

Gateway Downtown San Bernardino
9: D St. & 5th St.

Existing Conditions
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	652	47	32	858	38	118	158	23	39	115	86
Future Volume (veh/h)	68	652	47	32	858	38	118	158	23	39	115	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	73	701	51	34	923	41	127	170	25	42	124	92
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	366	2071	151	448	2138	95	286	706	102	300	455	310
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	521	3179	231	634	3283	146	1037	2941	424	1053	1896	1293
Grp Volume(v), veh/h	73	371	381	34	473	491	127	96	99	42	109	107
Grp Sat Flow(s),veh/h/ln	521	1683	1727	634	1683	1745	1037	1683	1682	1053	1683	1506
Q Serve(g_s), s	5.8	7.3	7.3	1.9	10.0	10.0	8.4	3.4	3.5	2.5	3.9	4.3
Cycle Q Clear(g_c), s	15.9	7.3	7.3	9.1	10.0	10.0	12.7	3.4	3.5	6.0	3.9	4.3
Prop In Lane	1.00		0.13	1.00		0.08	1.00		0.25	1.00		0.86
Lane Grp Cap(c), veh/h	366	1097	1125	448	1097	1137	286	404	404	300	404	361
V/C Ratio(X)	0.20	0.34	0.34	0.08	0.43	0.43	0.44	0.24	0.25	0.14	0.27	0.30
Avail Cap(c_a), veh/h	366	1097	1125	448	1097	1137	516	777	776	533	777	695
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	5.7	5.7	7.8	6.2	6.2	28.1	22.6	22.6	25.0	22.8	22.9
Incr Delay (d2), s/veh	1.2	0.8	0.8	0.3	1.2	1.2	1.1	0.3	0.3	0.2	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.1	2.1	0.2	2.9	3.0	2.0	1.3	1.3	0.6	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.3	6.6	6.6	8.1	7.5	7.4	29.2	22.9	22.9	25.2	23.1	23.4
LnGrp LOS	B	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		825			998			322			258	
Approach Delay, s/veh		7.0			7.5			25.4			23.6	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		21.7		52.0		21.7		52.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		34.0		48.0		34.0		48.0				
Max Q Clear Time (g_c+I1), s		14.7		17.9		8.0		12.0				
Green Ext Time (p_c), s		1.5		5.8		1.3		7.2				
Intersection Summary												
HCM 6th Ctrl Delay				11.4								
HCM 6th LOS				B								

Gateway Downtown San Bernardino
10: Arrowhead Ave. & 5th St.

Existing Conditions
Timing Plan: PM Peak



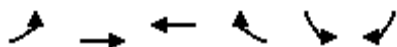
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	54	654	45	37	753	37	97	319	89	25	152	53
Future Volume (veh/h)	54	654	45	37	753	37	97	319	89	25	152	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	57	696	48	39	801	39	103	339	95	27	162	56
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	416	2083	144	456	2132	104	287	613	169	201	583	194
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	586	3192	220	641	3267	159	1035	2590	713	850	2467	819
Grp Volume(v), veh/h	57	367	377	39	413	427	103	218	216	27	108	110
Grp Sat Flow(s),veh/h/ln	586	1683	1729	641	1683	1743	1035	1683	1620	850	1683	1603
Q Serve(g_s), s	3.6	7.0	7.0	2.1	8.1	8.1	6.5	8.2	8.4	2.1	3.8	4.0
Cycle Q Clear(g_c), s	11.7	7.0	7.0	9.1	8.1	8.1	10.6	8.2	8.4	10.5	3.8	4.0
Prop In Lane	1.00		0.13	1.00		0.09	1.00		0.44	1.00		0.51
Lane Grp Cap(c), veh/h	416	1098	1128	456	1098	1137	287	398	383	201	398	379
V/C Ratio(X)	0.14	0.33	0.33	0.09	0.38	0.38	0.36	0.55	0.56	0.13	0.27	0.29
Avail Cap(c_a), veh/h	416	1098	1128	456	1098	1137	545	818	787	413	818	779
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.5	5.6	5.6	7.6	5.8	5.8	26.9	24.1	24.2	28.9	22.4	22.5
Incr Delay (d2), s/veh	0.7	0.8	0.8	0.4	1.0	0.9	0.8	1.2	1.3	0.3	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.9	2.0	0.3	2.3	2.3	1.6	3.1	3.1	0.4	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.1	6.4	6.4	7.9	6.7	6.7	27.6	25.3	25.5	29.2	22.8	23.0
LnGrp LOS	A	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		801			879			537			245	
Approach Delay, s/veh		6.6			6.8			25.8			23.6	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		21.0		51.0		21.0		51.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		35.0		47.0		35.0		47.0				
Max Q Clear Time (g_c+I1), s		12.6		13.7		12.5		11.1				
Green Ext Time (p_c), s		2.9		5.5		1.3		6.1				
Intersection Summary												
HCM 6th Ctrl Delay											12.5	
HCM 6th LOS											B	

Gateway Downtown San Bernardino
1: Mt. Vernon Ave. & 5th St.

Opening Year (2023) AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	71	555	139	57	460	80	73	328	43	132	517	67
Future Volume (veh/h)	71	555	139	57	460	80	73	328	43	132	517	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	76	597	149	61	495	86	78	353	46	142	556	72
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	1128	281	84	1197	207	241	980	127	326	980	127
Arrive On Green	0.06	0.42	0.42	0.05	0.42	0.42	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1594	2662	663	1594	2867	496	712	2996	387	879	2996	387
Grp Volume(v), veh/h	76	377	369	61	290	291	78	197	202	142	312	316
Grp Sat Flow(s),veh/h/ln	1594	1683	1642	1594	1683	1680	712	1683	1700	879	1683	1699
Q Serve(g_s), s	2.9	10.2	10.2	2.3	7.4	7.5	6.2	5.5	5.5	9.0	9.3	9.4
Cycle Q Clear(g_c), s	2.9	10.2	10.2	2.3	7.4	7.5	15.6	5.5	5.5	14.5	9.3	9.4
Prop In Lane	1.00		0.40	1.00		0.30	1.00		0.23	1.00		0.23
Lane Grp Cap(c), veh/h	95	713	696	84	702	701	241	550	556	326	550	556
V/C Ratio(X)	0.80	0.53	0.53	0.73	0.41	0.42	0.32	0.36	0.36	0.44	0.57	0.57
Avail Cap(c_a), veh/h	183	713	696	183	702	701	305	702	709	405	702	709
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	13.1	13.1	28.5	12.5	12.6	23.5	15.7	15.7	21.3	17.0	17.0
Incr Delay (d2), s/veh	14.5	2.8	2.9	11.2	1.8	1.8	0.8	0.4	0.4	0.9	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.7	3.6	1.1	2.6	2.7	1.0	1.9	1.9	1.7	3.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.9	15.9	16.0	39.7	14.3	14.4	24.2	16.1	16.1	22.2	17.9	17.9
LnGrp LOS	D	B	B	D	B	B	C	B	B	C	B	B
Approach Vol, veh/h		822			642			477			770	
Approach Delay, s/veh		18.4			16.8			17.4			18.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.0	7.2	29.9		24.0	7.6	29.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		25.5	7.0	25.5		25.5	7.0	25.5				
Max Q Clear Time (g_c+I1), s		17.6	4.3	12.2		16.5	4.9	9.5				
Green Ext Time (p_c), s		1.7	0.0	3.7		3.0	0.0	3.0				
Intersection Summary												
HCM 6th Ctrl Delay				17.9								
HCM 6th LOS				B								



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	827	638	51	116	17
Future Volume (veh/h)	8	827	638	51	116	17
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1772	1673	1673
Adj Flow Rate, veh/h	9	899	693	55	126	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	560	1822	1710	136	175	25
Arrive On Green	0.54	0.54	0.54	0.54	0.13	0.13
Sat Flow, veh/h	638	3455	3248	251	1362	195
Grp Volume(v), veh/h	9	899	369	379	145	0
Grp Sat Flow(s),veh/h/ln	638	1683	1683	1726	1567	0
Q Serve(g_s), s	0.2	4.0	3.1	3.1	2.2	0.0
Cycle Q Clear(g_c), s	3.3	4.0	3.1	3.1	2.2	0.0
Prop In Lane	1.00			0.15	0.87	0.12
Lane Grp Cap(c), veh/h	560	1822	911	934	202	0
V/C Ratio(X)	0.02	0.49	0.40	0.41	0.72	0.00
Avail Cap(c_a), veh/h	1294	5696	2848	2921	2005	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	4.2	3.5	3.3	3.3	10.1	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.3	0.3	4.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.1	0.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.3	3.7	3.6	3.6	14.9	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		908	748		145	
Approach Delay, s/veh		3.7	3.6		14.9	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				17.1	7.1	17.1
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				41.0	31.0	41.0
Max Q Clear Time (g_c+I1), s				6.0	4.2	5.1
Green Ext Time (p_c), s				7.1	0.4	4.8
Intersection Summary						
HCM 6th Ctrl Delay			4.5			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

Gateway Downtown San Bernardino
3: I-215 SB Ramps & 5th St.

Opening Year (2023) AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑		↔↔	↑↑					↔	↔	↔
Traffic Volume (veh/h)	0	529	397	373	496	0	0	0	0	708	13	185
Future Volume (veh/h)	0	529	397	373	496	0	0	0	0	708	13	185
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1772	1772	1575	1772	0				1673	1673	1673
Adj Flow Rate, veh/h	0	545	409	385	511	0				795	0	132
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1989	653	432	2102	0				876	0	390
Arrive On Green	0.00	0.44	0.44	0.30	1.00	0.00				0.27	0.00	0.27
Sat Flow, veh/h	0	4820	1502	2910	3455	0				3188	0	1418
Grp Volume(v), veh/h	0	545	409	385	511	0				795	0	132
Grp Sat Flow(s),veh/h/ln	0	1524	1502	1455	1683	0				1594	0	1418
Q Serve(g_s), s	0.0	8.4	23.3	13.9	0.0	0.0				26.5	0.0	8.2
Cycle Q Clear(g_c), s	0.0	8.4	23.3	13.9	0.0	0.0				26.5	0.0	8.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1989	653	432	2102	0				876	0	390
V/C Ratio(X)	0.00	0.27	0.63	0.89	0.24	0.00				0.91	0.00	0.34
Avail Cap(c_a), veh/h	0	1989	653	569	2102	0				1310	0	583
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.92	0.92	0.96	0.96	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	19.9	24.1	37.8	0.0	0.0				38.5	0.0	31.9
Incr Delay (d2), s/veh	0.0	0.3	4.1	10.9	0.3	0.0				5.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.9	8.6	4.7	0.1	0.0				10.6	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.2	28.3	48.8	0.3	0.0				43.5	0.0	32.1
LnGrp LOS	A	C	C	D	A	A				D	A	C
Approach Vol, veh/h		954			896						927	
Approach Delay, s/veh		23.7			21.1						41.9	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	30.8	53.2		36.0		74.0						
Change Period (Y+Rc), s	4.5	5.3		5.8		5.3						
Max Green Setting (Gmax), s	1.5	27.7		45.2		53.7						
Max Q Clear Time (g_c+11), s	1.5	25.3		28.5		2.0						
Green Ext Time (p_c), s	0.4	1.1		1.7		2.2						

Intersection Summary

HCM 6th Ctrl Delay		28.9	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

Opening Year (2023) AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑			↑↑↑↑	↖	↖	↕	↖			
Traffic Volume (veh/h)	166	1071	0	0	615	205	254	2	600	0	0	0
Future Volume (veh/h)	166	1071	0	0	615	205	254	2	600	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1575	1772	0	0	1772	1772	1673	1673	1772			
Adj Flow Rate, veh/h	178	1152	0	0	661	220	183	0	743			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	230	2094	0	0	3033	738	442	0	824			
Arrive On Green	0.03	0.21	0.00	0.00	0.50	0.50	0.28	0.00	0.28			
Sat Flow, veh/h	2910	3455	0	0	6343	1482	1594	0	2976			
Grp Volume(v), veh/h	178	1152	0	0	661	220	183	0	743			
Grp Sat Flow(s),veh/h/ln	1455	1683	0	0	1524	1482	1594	0	1488			
Q Serve(g_s), s	6.7	33.7	0.0	0.0	6.7	9.6	10.3	0.0	26.5			
Cycle Q Clear(g_c), s	6.7	33.7	0.0	0.0	6.7	9.6	10.3	0.0	26.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	230	2094	0	0	3033	738	442	0	824			
V/C Ratio(X)	0.77	0.55	0.00	0.00	0.22	0.30	0.41	0.00	0.90			
Avail Cap(c_a), veh/h	265	2094	0	0	3033	738	785	0	1466			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.83	0.83	0.00	0.00	0.92	0.92	1.00	0.00	1.00			
Uniform Delay (d), s/veh	52.6	29.9	0.0	0.0	15.6	16.3	32.5	0.0	38.3			
Incr Delay (d2), s/veh	8.2	0.9	0.0	0.0	0.2	1.0	0.2	0.0	1.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.8	15.3	0.0	0.0	2.3	3.3	3.9	0.0	9.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	30.8	0.0	0.0	15.7	17.3	32.7	0.0	40.1			
LnGrp LOS	E	C	A	A	B	B	C	A	D			
Approach Vol, veh/h		1330			881			926				
Approach Delay, s/veh		34.8			16.1			38.6				
Approach LOS		C			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		73.7			13.7	60.0		36.3				
Change Period (Y+Rc), s		5.3			5.0	5.3		5.8				
Max Green Setting (Gmax), s		44.7			10.0	29.7		54.2				
Max Q Clear Time (g_c+I1), s		35.7			8.7	11.6		28.5				
Green Ext Time (p_c), s		3.7			0.0	3.1		2.0				
Intersection Summary												
HCM 6th Ctrl Delay					30.7							
HCM 6th LOS					C							
Notes												
User approved volume balancing among the lanes for turning movement.												

Gateway Downtown San Bernardino
5: H St. & 5th St.

Opening Year (2023) AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↑↑		↘	↑↑	↗
Traffic Volume (veh/h)	110	1448	113	2	600	23	52	73	9	33	113	168
Future Volume (veh/h)	110	1448	113	2	600	23	52	73	9	33	113	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	122	1609	126	2	667	26	58	81	10	37	126	187
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	1982	971	4	1640	64	300	472	57	336	529	379
Arrive On Green	0.10	0.59	0.59	0.00	0.50	0.50	0.06	0.16	0.16	0.06	0.16	0.16
Sat Flow, veh/h	1594	3367	1499	1594	3303	129	1594	3020	366	1594	3367	1502
Grp Volume(v), veh/h	122	1609	126	2	340	353	58	44	47	37	126	187
Grp Sat Flow(s),veh/h/ln	1594	1683	1499	1594	1683	1749	1594	1683	1703	1594	1683	1502
Q Serve(g_s), s	6.2	31.3	2.7	0.1	10.6	10.6	2.5	1.9	2.0	1.6	2.7	8.9
Cycle Q Clear(g_c), s	6.2	31.3	2.7	0.1	10.6	10.6	2.5	1.9	2.0	1.6	2.7	8.9
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	151	1982	971	4	836	868	300	263	266	336	529	379
V/C Ratio(X)	0.81	0.81	0.13	0.46	0.41	0.41	0.19	0.17	0.17	0.11	0.24	0.49
Avail Cap(c_a), veh/h	326	1982	971	115	836	868	320	768	778	356	1537	828
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	13.5	5.6	41.4	13.2	13.2	26.6	30.4	30.5	26.2	30.7	26.6
Incr Delay (d2), s/veh	9.6	3.8	0.3	61.6	1.5	1.4	0.3	0.3	0.3	0.1	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	10.6	0.7	0.1	3.9	4.0	0.9	0.8	0.8	0.6	1.1	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	17.2	5.9	103.0	14.7	14.6	26.9	30.7	30.8	26.3	30.9	27.6
LnGrp LOS	D	B	A	F	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1857			695			149			350	
Approach Delay, s/veh		18.4			14.9			29.3			28.7	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	17.0	4.2	53.0	8.9	17.1	11.9	45.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	38.0	6.0	49.0	6.0	38.0	17.0	38.0				
Max Q Clear Time (g_c+1), s	13.6	4.0	2.1	33.3	4.5	10.9	8.2	12.6				
Green Ext Time (p_c), s	0.0	0.4	0.0	10.4	0.0	1.3	0.2	4.1				

Intersection Summary

HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Gateway Downtown San Bernardino
6: G St. & 5th St.

Opening Year (2023) AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	1397	20	10	544	34	5	25	3	36	72	52
Future Volume (veh/h)	81	1397	20	10	544	34	5	25	3	36	72	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1673	1772	1673	1673	1772
Adj Flow Rate, veh/h	89	1535	22	11	598	37	5	27	3	40	79	57
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	609	2551	37	279	2417	149	96	307	33	135	167	118
Arrive On Green	0.75	0.75	0.75	0.75	0.75	0.75	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	708	3398	49	296	3220	199	186	2583	277	447	1403	996
Grp Volume(v), veh/h	89	760	797	11	312	323	19	0	16	99	0	77
Grp Sat Flow(s),veh/h/ln	708	1683	1763	296	1683	1735	1581	0	1465	1509	0	1338
Q Serve(g_s), s	2.7	12.6	12.6	1.1	3.5	3.5	0.0	0.0	0.6	2.0	0.0	3.3
Cycle Q Clear(g_c), s	6.2	12.6	12.6	13.7	3.5	3.5	0.6	0.0	0.6	3.7	0.0	3.3
Prop In Lane	1.00		0.03	1.00		0.11	0.26		0.19	0.40		0.74
Lane Grp Cap(c), veh/h	609	1264	1323	279	1264	1303	262	0	174	262	0	159
V/C Ratio(X)	0.15	0.60	0.60	0.04	0.25	0.25	0.07	0.00	0.09	0.38	0.00	0.48
Avail Cap(c_a), veh/h	609	1264	1323	279	1264	1303	714	0	622	707	0	568
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.3	3.5	3.5	6.6	2.3	2.3	24.1	0.0	24.1	25.4	0.0	25.2
Incr Delay (d2), s/veh	0.5	2.1	2.0	0.3	0.5	0.5	0.1	0.0	0.2	0.9	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.0	2.1	0.1	0.5	0.5	0.2	0.0	0.2	1.3	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.8	5.6	5.5	6.9	2.8	2.8	24.2	0.0	24.3	26.3	0.0	27.5
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1646			646			35			176	
Approach Delay, s/veh		5.5			2.9			24.2			26.8	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.3		50.0		11.3		50.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		46.0		26.0		46.0				
Max Q Clear Time (g_c+I1), s		2.6		14.6		5.7		15.7				
Green Ext Time (p_c), s		0.1		14.6		0.8		4.2				

Intersection Summary

HCM 6th Ctrl Delay	6.6
HCM 6th LOS	A

Gateway Downtown San Bernardino
7: F St. & 5th St.

Opening Year (2023) AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Volume (veh/h)	66	1352	7	5	551	20	2	23	9	9	16	28
Future Volume (veh/h)	66	1352	7	5	551	20	2	23	9	9	16	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.96	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1673	1772	1673	1673	1772
Adj Flow Rate, veh/h	73	1486	8	5	605	22	2	25	10	10	18	31
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	635	2650	14	309	2557	93	73	201	74	110	118	119
Arrive On Green	0.77	0.77	0.77	0.77	0.77	0.77	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	713	3433	18	315	3313	120	70	2137	783	300	1255	1264
Grp Volume(v), veh/h	73	728	766	5	307	320	20	0	17	28	0	31
Grp Sat Flow(s),veh/h/ln	713	1683	1769	315	1683	1750	1646	0	1344	1555	0	1264
Q Serve(g_s), s	1.9	10.4	10.4	0.4	3.0	3.0	0.0	0.0	0.7	0.0	0.0	1.4
Cycle Q Clear(g_c), s	4.9	10.4	10.4	10.8	3.0	3.0	0.6	0.0	0.7	0.9	0.0	1.4
Prop In Lane	1.00		0.01	1.00		0.07	0.10		0.58	0.36		1.00
Lane Grp Cap(c), veh/h	635	1299	1365	309	1299	1350	221	0	126	228	0	119
V/C Ratio(X)	0.11	0.56	0.56	0.02	0.24	0.24	0.09	0.00	0.14	0.12	0.00	0.26
Avail Cap(c_a), veh/h	635	1299	1365	309	1299	1350	773	0	586	730	0	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	2.6	2.7	2.7	4.9	1.9	1.9	24.8	0.0	24.8	24.9	0.0	25.1
Incr Delay (d2), s/veh	0.4	1.8	1.7	0.1	0.4	0.4	0.2	0.0	0.5	0.2	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.2	1.2	0.0	0.3	0.3	0.2	0.0	0.2	0.3	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.0	4.5	4.4	5.0	2.3	2.3	24.9	0.0	25.3	25.1	0.0	26.2
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1567			632			37			59	
Approach Delay, s/veh		4.4			2.3			25.1			25.7	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		9.6		50.0		9.6		50.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		46.0		26.0		46.0				
Max Q Clear Time (g_c+I1), s		2.7		12.4		3.4		12.8				
Green Ext Time (p_c), s		0.1		13.9		0.2		4.0				
Intersection Summary												
HCM 6th Ctrl Delay				4.7								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
8: E St. & 5th St.

Opening Year (2023) AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↖		↖	↖	
Traffic Volume (veh/h)	75	1265	32	30	555	12	9	105	25	33	152	25
Future Volume (veh/h)	75	1265	32	30	555	12	9	105	25	33	152	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	80	1346	34	32	590	13	10	112	27	35	162	27
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	485	1942	49	232	1949	43	20	230	55	63	287	48
Arrive On Green	0.58	0.58	0.58	0.58	0.58	0.58	0.01	0.17	0.17	0.04	0.19	0.19
Sat Flow, veh/h	729	3355	85	351	3367	74	1594	1371	330	1594	1474	246
Grp Volume(v), veh/h	80	675	705	32	295	308	10	0	139	35	0	189
Grp Sat Flow(s),veh/h/ln	729	1683	1756	351	1683	1758	1594	0	1701	1594	0	1720
Q Serve(g_s), s	3.5	15.8	15.9	4.0	5.0	5.0	0.3	0.0	4.2	1.2	0.0	5.6
Cycle Q Clear(g_c), s	8.6	15.8	15.9	19.8	5.0	5.0	0.3	0.0	4.2	1.2	0.0	5.6
Prop In Lane	1.00		0.05	1.00		0.04	1.00		0.19	1.00		0.14
Lane Grp Cap(c), veh/h	485	974	1016	232	974	1018	20	0	286	63	0	335
V/C Ratio(X)	0.17	0.69	0.69	0.14	0.30	0.30	0.49	0.00	0.49	0.56	0.00	0.56
Avail Cap(c_a), veh/h	485	974	1016	232	974	1018	170	0	894	170	0	904
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.2	8.3	8.3	15.3	6.0	6.0	27.5	0.0	21.2	26.5	0.0	20.5
Incr Delay (d2), s/veh	0.7	4.0	3.9	1.2	0.8	0.8	16.8	0.0	1.3	7.4	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.7	4.9	0.3	1.4	1.4	0.2	0.0	1.6	0.5	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.0	12.4	12.2	16.5	6.8	6.8	44.4	0.0	22.4	33.9	0.0	22.0
LnGrp LOS	A	B	B	B	A	A	D	A	C	C	A	C
Approach Vol, veh/h		1460			635			149			224	
Approach Delay, s/veh		12.1			7.3			23.9			23.8	
Approach LOS		B			A			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.2	13.4		36.5	4.7	14.9		36.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	6.0	29.5		32.5	6.0	29.5		32.5				
Max Q Clear Time (g_c+1), s	13.2	6.2		17.9	2.3	7.6		21.8				
Green Ext Time (p_c), s	0.0	0.7		8.2	0.0	0.9		2.9				
Intersection Summary												
HCM 6th Ctrl Delay											12.6	
HCM 6th LOS											B	

Gateway Downtown San Bernardino
9: D St. & 5th St.

Opening Year (2023) AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	54	1063	79	28	570	32	24	50	15	24	96	24
Future Volume (veh/h)	54	1063	79	28	570	32	24	50	15	24	96	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.97	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	58	1143	85	30	613	34	26	54	16	26	103	26
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	577	2288	170	347	2336	129	244	383	108	268	397	97
Arrive On Green	0.72	0.72	0.72	0.72	0.72	0.72	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	700	3176	236	406	3242	180	1115	2575	725	1162	2674	652
Grp Volume(v), veh/h	58	605	623	30	318	329	26	34	36	26	63	66
Grp Sat Flow(s),veh/h/ln	700	1683	1729	406	1683	1739	1115	1683	1617	1162	1683	1642
Q Serve(g_s), s	1.9	9.6	9.6	2.1	4.0	4.0	1.3	1.1	1.2	1.2	2.0	2.2
Cycle Q Clear(g_c), s	5.9	9.6	9.6	11.7	4.0	4.0	3.5	1.1	1.2	2.4	2.0	2.2
Prop In Lane	1.00		0.14	1.00		0.10	1.00		0.45	1.00		0.40
Lane Grp Cap(c), veh/h	577	1213	1246	347	1213	1253	244	250	240	268	250	244
V/C Ratio(X)	0.10	0.50	0.50	0.09	0.26	0.26	0.11	0.14	0.15	0.10	0.25	0.27
Avail Cap(c_a), veh/h	577	1213	1246	347	1213	1253	590	772	741	628	772	753
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.0	3.7	3.7	6.3	2.9	2.9	24.6	22.6	22.6	23.7	23.0	23.1
Incr Delay (d2), s/veh	0.3	1.5	1.4	0.5	0.5	0.5	0.2	0.2	0.3	0.2	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.8	1.9	0.2	0.7	0.7	0.3	0.4	0.4	0.3	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.3	5.2	5.2	6.8	3.5	3.5	24.8	22.8	22.9	23.8	23.5	23.6
LnGrp LOS	A	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		1286			677			96			155	
Approach Delay, s/veh		5.1			3.6			23.4			23.6	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.1		48.0		13.1		48.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		28.0		44.0		28.0		44.0				
Max Q Clear Time (g_c+I1), s		5.5		11.6		4.4		13.7				
Green Ext Time (p_c), s		0.4		10.2		0.7		4.5				
Intersection Summary												
HCM 6th Ctrl Delay				6.8								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
10: Arrowhead Ave. & 5th St.

Opening Year (2023) AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	66	823	185	56	573	38	44	89	30	25	190	33
Future Volume (veh/h)	66	823	185	56	573	38	44	89	30	25	190	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	74	925	208	63	644	43	49	100	34	28	213	37
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	534	1897	426	356	2226	148	226	438	142	272	505	86
Arrive On Green	0.69	0.69	0.69	0.69	0.69	0.69	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	676	2730	613	444	3203	214	1009	2490	809	1115	2874	491
Grp Volume(v), veh/h	74	570	563	63	338	349	49	66	68	28	123	127
Grp Sat Flow(s),veh/h/ln	676	1683	1660	444	1683	1733	1009	1683	1616	1115	1683	1682
Q Serve(g_s), s	2.9	9.7	9.7	4.7	4.7	4.8	2.8	2.1	2.2	1.4	4.0	4.2
Cycle Q Clear(g_c), s	7.7	9.7	9.7	14.4	4.7	4.8	7.0	2.1	2.2	3.6	4.0	4.2
Prop In Lane	1.00		0.37	1.00		0.12	1.00		0.50	1.00		0.29
Lane Grp Cap(c), veh/h	534	1170	1154	356	1170	1205	226	296	284	272	296	295
V/C Ratio(X)	0.14	0.49	0.49	0.18	0.29	0.29	0.22	0.22	0.24	0.10	0.42	0.43
Avail Cap(c_a), veh/h	534	1170	1154	356	1170	1205	521	789	758	599	789	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.1	4.4	4.4	7.7	3.6	3.6	25.8	21.9	21.9	23.5	22.7	22.7
Incr Delay (d2), s/veh	0.5	1.5	1.5	1.1	0.6	0.6	0.5	0.4	0.4	0.2	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.1	2.1	0.4	1.0	1.0	0.6	0.8	0.8	0.3	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.6	5.8	5.8	8.8	4.2	4.2	26.3	22.3	22.4	23.7	23.6	23.7
LnGrp LOS	A	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		1207			750			183			278	
Approach Delay, s/veh		5.8			4.6			23.4			23.7	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		14.9		47.0		14.9		47.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		29.0		43.0		29.0		43.0				
Max Q Clear Time (g_c+I1), s		9.0		11.7		6.2		16.4				
Green Ext Time (p_c), s		0.8		9.4		1.4		5.2				
Intersection Summary												
HCM 6th Ctrl Delay				8.8								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
1: Mt. Vernon Ave. & 5th St.

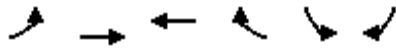
Opening Year (2023) PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	109	582	111	60	626	155	140	618	91	118	423	93
Future Volume (veh/h)	109	582	111	60	626	155	140	618	91	118	423	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	115	613	117	63	659	163	147	651	96	124	445	98
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	1144	218	81	986	244	293	1083	159	225	1010	221
Arrive On Green	0.09	0.41	0.41	0.05	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1594	2811	535	1594	2673	660	771	2936	432	638	2738	598
Grp Volume(v), veh/h	115	367	363	63	415	407	147	373	374	124	272	271
Grp Sat Flow(s),veh/h/ln	1594	1683	1663	1594	1683	1650	771	1683	1685	638	1683	1652
Q Serve(g_s), s	4.9	11.4	11.5	2.7	14.3	14.3	12.3	12.4	12.5	13.0	8.4	8.6
Cycle Q Clear(g_c), s	4.9	11.4	11.5	2.7	14.3	14.3	20.8	12.4	12.5	25.5	8.4	8.6
Prop In Lane	1.00		0.32	1.00		0.40	1.00		0.26	1.00		0.36
Lane Grp Cap(c), veh/h	142	685	677	81	621	608	293	621	622	225	621	609
V/C Ratio(X)	0.81	0.54	0.54	0.78	0.67	0.67	0.50	0.60	0.60	0.55	0.44	0.44
Avail Cap(c_a), veh/h	161	685	677	161	621	608	293	621	622	225	621	609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	15.5	15.6	32.4	18.3	18.3	24.3	17.7	17.7	28.2	16.4	16.5
Incr Delay (d2), s/veh	23.6	3.0	3.0	14.8	5.6	5.8	1.3	1.6	1.6	2.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.3	4.3	1.3	5.8	5.7	2.1	4.5	4.5	2.1	2.9	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.5	18.5	18.6	47.2	23.9	24.1	25.7	19.3	19.3	31.1	16.9	17.0
LnGrp LOS	D	B	B	D	C	C	C	B	B	C	B	B
Approach Vol, veh/h		845			885			894			667	
Approach Delay, s/veh		23.5			25.6			20.4			19.6	
Approach LOS		C			C			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.5	7.5	32.1		29.5	10.1	29.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		25.5	7.0	25.5		25.5	7.0	25.5				
Max Q Clear Time (g_c+I1), s		22.8	4.7	13.5		27.5	6.9	16.3				
Green Ext Time (p_c), s		1.4	0.0	3.4		0.0	0.0	3.3				
Intersection Summary												
HCM 6th Ctrl Delay				22.4								
HCM 6th LOS				C								

Gateway Downtown San Bernardino
2: 5th St. & J St.

Opening Year (2023) PM
Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑↑	↑↔		↘	
Traffic Volume (veh/h)	12	888	967	119	94	7
Future Volume (veh/h)	12	888	967	119	94	7
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1772	1673	1673
Adj Flow Rate, veh/h	12	897	977	120	95	7
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	430	2683	2405	295	121	9
Arrive On Green	0.80	0.80	0.80	0.80	0.08	0.08
Sat Flow, veh/h	460	3455	3106	371	1458	107
Grp Volume(v), veh/h	12	897	545	552	103	0
Grp Sat Flow(s),veh/h/ln	460	1683	1683	1705	1581	0
Q Serve(g_s), s	0.5	4.9	6.5	6.5	4.3	0.0
Cycle Q Clear(g_c), s	7.0	4.9	6.5	6.5	4.3	0.0
Prop In Lane	1.00			0.22	0.92	0.07
Lane Grp Cap(c), veh/h	430	2683	1341	1359	131	0
V/C Ratio(X)	0.03	0.33	0.41	0.41	0.79	0.00
Avail Cap(c_a), veh/h	430	2683	1341	1359	689	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	3.1	1.9	2.0	2.0	29.9	0.0
Incr Delay (d2), s/veh	0.1	0.3	0.9	0.9	9.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.7	0.7	1.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.2	2.2	2.9	2.9	39.8	0.0
LnGrp LOS	A	A	A	A	D	A
Approach Vol, veh/h		909	1097		103	
Approach Delay, s/veh		2.2	2.9		39.8	
Approach LOS		A	A		D	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				57.0	9.5	57.0
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				53.0	29.0	53.0
Max Q Clear Time (g_c+I1), s				9.0	6.3	8.5
Green Ext Time (p_c), s				7.4	0.2	8.5
Intersection Summary						
HCM 6th Ctrl Delay			4.4			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

Gateway Downtown San Bernardino
3: I-215 SB Ramps & 5th St.

Opening Year (2023) PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑		↔↔	↑↑					↔	↔	↔
Traffic Volume (veh/h)	0	631	353	529	898	0	0	0	0	261	5	189
Future Volume (veh/h)	0	631	353	529	898	0	0	0	0	261	5	189
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No		No						No		
Adj Sat Flow, veh/h/ln	0	1772	1772	1575	1772	0				1673	1673	1772
Adj Flow Rate, veh/h	0	644	360	540	916	0				328	0	130
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	2207	725	623	2515	0				413	0	194
Arrive On Green	0.00	0.48	0.48	0.07	0.25	0.00				0.13	0.00	0.13
Sat Flow, veh/h	0	4820	1502	2910	3455	0				3188	0	1498
Grp Volume(v), veh/h	0	644	360	540	916	0				328	0	130
Grp Sat Flow(s),veh/h/ln	0	1524	1502	1455	1683	0				1594	0	1498
Q Serve(g_s), s	0.0	7.6	14.7	16.5	20.3	0.0				9.0	0.0	7.4
Cycle Q Clear(g_c), s	0.0	7.6	14.7	16.5	20.3	0.0				9.0	0.0	7.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2207	725	623	2515	0				413	0	194
V/C Ratio(X)	0.00	0.29	0.50	0.87	0.36	0.00				0.79	0.00	0.67
Avail Cap(c_a), veh/h	0	2207	725	857	2515	0				786	0	370
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.94	0.94	0.87	0.87	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.0	15.8	40.5	16.2	0.0				38.0	0.0	37.3
Incr Delay (d2), s/veh	0.0	0.3	2.3	4.8	0.4	0.0				1.3	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.5	5.0	6.8	9.1	0.0				3.4	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	14.3	18.1	45.4	16.6	0.0				39.3	0.0	38.8
LnGrp LOS	A	B	B	D	B	A				D	A	D
Approach Vol, veh/h		1004			1456						458	
Approach Delay, s/veh		15.7			27.2						39.2	
Approach LOS		B			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	33.8	48.8		17.5		72.5						
Change Period (Y+Rc), s	4.5	5.3		5.8		5.3						
Max Green Setting (Gmax), s	26.5	25.7		22.2		56.7						
Max Q Clear Time (g_c+11), s	16.7	16.7		11.0		22.3						
Green Ext Time (p_c), s	0.7	3.1		0.7		4.4						

Intersection Summary

HCM 6th Ctrl Delay		25.1	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

Opening Year (2023) PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑			↑↑↑	↖	↖	↕	↖			
Traffic Volume (veh/h)	225	667	0	0	1029	720	398	2	463	0	0	0
Future Volume (veh/h)	225	667	0	0	1029	720	398	2	463	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1575	1772	0	0	1772	1772	1673	1673	1772			
Adj Flow Rate, veh/h	232	688	0	0	1061	742	570	0	308			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	259	2157	0	0	3025	742	752	0	351			
Arrive On Green	0.18	1.00	0.00	0.00	0.50	0.50	0.24	0.00	0.24			
Sat Flow, veh/h	2910	3455	0	0	6343	1494	3188	0	1488			
Grp Volume(v), veh/h	232	688	0	0	1061	742	570	0	308			
Grp Sat Flow(s),veh/h/ln	1455	1683	0	0	1524	1494	1594	0	1488			
Q Serve(g_s), s	7.0	0.0	0.0	0.0	9.6	44.7	15.0	0.0	17.9			
Cycle Q Clear(g_c), s	7.0	0.0	0.0	0.0	9.6	44.7	15.0	0.0	17.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	259	2157	0	0	3025	742	752	0	351			
V/C Ratio(X)	0.90	0.32	0.00	0.00	0.35	1.00	0.76	0.00	0.88			
Avail Cap(c_a), veh/h	259	2157	0	0	3025	742	999	0	466			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.91	0.91	0.00	0.00	0.39	0.39	1.00	0.00	1.00			
Uniform Delay (d), s/veh	36.6	0.0	0.0	0.0	13.8	22.7	32.0	0.0	33.1			
Incr Delay (d2), s/veh	27.9	0.4	0.0	0.0	0.1	20.8	1.6	0.0	11.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/lr	3.2	0.1	0.0	0.0	3.0	17.9	5.6	0.0	7.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	0.4	0.0	0.0	13.9	43.4	33.5	0.0	44.5			
LnGrp LOS	E	A	A	A	B	F	C	A	D			
Approach Vol, veh/h		920			1803			878				
Approach Delay, s/veh		16.5			26.1			37.4				
Approach LOS		B			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		63.0			13.0	50.0		27.0				
Change Period (Y+Rc), s		5.3			5.0	5.3		5.8				
Max Green Setting (Gmax), s		50.7			8.0	37.7		28.2				
Max Q Clear Time (g_c+I1), s		2.0			9.0	46.7		19.9				
Green Ext Time (p_c), s		3.1			0.0	0.0		1.3				

Intersection Summary

HCM 6th Ctrl Delay	26.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
5: H St. & 5th St.

Opening Year (2023) PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↑↑		↘	↑↑	↗
Traffic Volume (veh/h)	209	832	90	5	1180	48	228	184	39	23	84	341
Future Volume (veh/h)	209	832	90	5	1180	48	228	184	39	23	84	341
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	218	867	94	5	1229	50	238	192	41	24	88	355
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	1654	832	10	1240	50	387	747	156	387	872	564
Arrive On Green	0.12	0.49	0.49	0.01	0.38	0.38	0.07	0.27	0.27	0.06	0.26	0.26
Sat Flow, veh/h	1594	3367	1492	1594	3297	134	1594	2769	579	1594	3367	1474
Grp Volume(v), veh/h	218	867	94	5	627	652	238	115	118	24	88	355
Grp Sat Flow(s),veh/h/ln	1594	1683	1492	1594	1683	1748	1594	1683	1664	1594	1683	1474
Q Serve(g_s), s	11.0	16.0	2.7	0.3	33.5	33.6	6.0	4.8	5.0	0.9	1.8	17.8
Cycle Q Clear(g_c), s	11.0	16.0	2.7	0.3	33.5	33.6	6.0	4.8	5.0	0.9	1.8	17.8
Prop In Lane	1.00		1.00	1.00		0.08	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	194	1654	832	10	633	657	387	454	449	387	872	564
V/C Ratio(X)	1.12	0.52	0.11	0.48	0.99	0.99	0.61	0.25	0.26	0.06	0.10	0.63
Avail Cap(c_a), veh/h	194	1654	832	106	633	657	387	708	699	405	1415	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	15.8	9.4	44.8	28.0	28.1	25.8	25.9	25.9	21.7	25.5	22.8
Incr Delay (d2), s/veh	101.9	1.2	0.3	30.6	33.5	33.2	2.9	0.3	0.3	0.1	0.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	5.8	0.8	0.2	18.2	18.9	1.8	1.9	1.9	0.3	0.7	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	141.6	17.0	9.7	75.4	61.6	61.3	28.7	26.1	26.2	21.7	25.5	24.0
LnGrp LOS	F	B	A	E	E	E	C	C	C	C	C	C
Approach Vol, veh/h		1179			1284			471			467	
Approach Delay, s/veh		39.4			61.5			27.5			24.2	
Approach LOS		D			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	28.4	4.6	48.4	10.0	27.4	15.0	38.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	38.0	6.0	39.0	6.0	38.0	11.0	34.0				
Max Q Clear Time (g_c+1/2g), s	7.0	7.0	2.3	18.0	8.0	19.8	13.0	35.6				
Green Ext Time (p_c), s	0.0	1.3	0.0	6.1	0.0	1.6	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	44.0
HCM 6th LOS	D

Gateway Downtown San Bernardino
6: G St. & 5th St.

Opening Year (2023) PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	749	22	10	1139	116	13	111	15	76	108	99
Future Volume (veh/h)	93	749	22	10	1139	116	13	111	15	76	108	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1673	1772	1673	1673	1772
Adj Flow Rate, veh/h	95	764	22	10	1162	118	13	113	15	78	110	101
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	301	2388	69	479	2205	223	78	472	60	166	197	183
Arrive On Green	0.71	0.71	0.71	0.71	0.71	0.71	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	386	3341	96	615	3085	313	132	2576	329	530	1077	1000
Grp Volume(v), veh/h	95	385	401	10	633	647	75	0	66	155	0	134
Grp Sat Flow(s),veh/h/ln	386	1683	1754	615	1683	1714	1581	0	1455	1285	0	1323
Q Serve(g_s), s	11.7	6.6	6.6	0.5	13.5	13.6	0.0	0.0	3.1	6.0	0.0	7.2
Cycle Q Clear(g_c), s	25.3	6.6	6.6	7.1	13.5	13.6	7.2	0.0	3.1	9.1	0.0	7.2
Prop In Lane	1.00		0.05	1.00		0.18	0.17		0.23	0.50		0.76
Lane Grp Cap(c), veh/h	301	1203	1253	479	1203	1225	344	0	267	304	0	242
V/C Ratio(X)	0.32	0.32	0.32	0.02	0.53	0.53	0.22	0.00	0.25	0.51	0.00	0.55
Avail Cap(c_a), veh/h	301	1203	1253	479	1203	1225	568	0	483	504	0	439
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.9	4.1	4.1	5.5	5.1	5.1	27.4	0.0	27.4	29.9	0.0	29.1
Incr Delay (d2), s/veh	2.7	0.7	0.7	0.1	1.6	1.6	0.3	0.0	0.5	1.3	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.7	1.7	0.1	3.5	3.5	1.2	0.0	1.0	2.7	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.6	4.8	4.8	5.5	6.8	6.8	27.7	0.0	27.9	31.2	0.0	31.0
LnGrp LOS	B	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		881			1290			141			289	
Approach Delay, s/veh		5.8			6.7			27.8			31.1	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		18.4		60.0		18.4		60.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		56.0		26.0		56.0				
Max Q Clear Time (g_c+I1), s		9.2		27.3		11.1		15.6				
Green Ext Time (p_c), s		0.6		7.0		1.4		10.9				
Intersection Summary												
HCM 6th Ctrl Delay											10.3	
HCM 6th LOS											B	

Gateway Downtown San Bernardino
7: F St. & 5th St.

Opening Year (2023) PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	742	32	17	1145	24	23	40	31	17	56	69
Future Volume (veh/h)	63	742	32	17	1145	24	23	40	31	17	56	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.97	0.98		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1673	1772	1673	1673	1772
Adj Flow Rate, veh/h	65	765	33	18	1180	25	24	41	32	18	58	71
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	368	2526	109	526	2590	55	117	146	111	87	165	151
Arrive On Green	0.77	0.77	0.77	0.77	0.77	0.77	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	415	3288	142	609	3371	71	357	1215	923	208	1376	1257
Grp Volume(v), veh/h	65	392	406	18	589	616	51	0	46	76	0	71
Grp Sat Flow(s),veh/h/ln	415	1683	1746	609	1683	1759	1175	0	1319	1584	0	1257
Q Serve(g_s), s	4.7	5.0	5.0	0.7	8.9	8.9	0.1	0.0	2.3	0.0	0.0	3.8
Cycle Q Clear(g_c), s	13.7	5.0	5.0	5.7	8.9	8.9	3.8	0.0	2.3	3.0	0.0	3.8
Prop In Lane	1.00		0.08	1.00		0.04	0.47		0.70	0.24		1.00
Lane Grp Cap(c), veh/h	368	1293	1342	526	1293	1351	215	0	158	252	0	151
V/C Ratio(X)	0.18	0.30	0.30	0.03	0.46	0.46	0.24	0.00	0.29	0.30	0.00	0.47
Avail Cap(c_a), veh/h	368	1293	1342	526	1293	1351	564	0	497	643	0	474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.4	2.5	2.5	3.4	3.0	3.0	28.6	0.0	28.7	29.0	0.0	29.4
Incr Delay (d2), s/veh	1.0	0.6	0.6	0.1	1.2	1.1	0.6	0.0	1.0	0.7	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.9	0.9	0.1	1.6	1.6	0.8	0.0	0.7	1.2	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.4	3.1	3.1	3.5	4.1	4.1	29.2	0.0	29.7	29.7	0.0	31.7
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		863			1223			97			147	
Approach Delay, s/veh		3.3			4.1			29.4			30.6	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		12.6		59.0		12.6		59.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		27.0		55.0		27.0		55.0				
Max Q Clear Time (g_c+I1), s		5.8		15.7		5.8		10.9				
Green Ext Time (p_c), s		0.4		6.7		0.7		10.0				

Intersection Summary

HCM 6th Ctrl Delay	6.5
HCM 6th LOS	A

Gateway Downtown San Bernardino
8: E St. & 5th St.

Opening Year (2023) PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	709	47	38	1064	17	80	314	30	35	191	50
Future Volume (veh/h)	35	709	47	38	1064	17	80	314	30	35	191	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	36	731	48	39	1097	18	82	324	31	36	197	52
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	243	1709	112	348	1809	30	148	412	39	57	272	72
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.09	0.26	0.26	0.04	0.20	0.20
Sat Flow, veh/h	451	3201	210	620	3389	56	1594	1589	152	1594	1345	355
Grp Volume(v), veh/h	36	384	395	39	545	570	82	0	355	36	0	249
Grp Sat Flow(s),veh/h/ln	451	1683	1728	620	1683	1761	1594	0	1741	1594	0	1701
Q Serve(g_s), s	4.2	9.7	9.7	2.8	15.7	15.7	3.5	0.0	13.3	1.6	0.0	9.6
Cycle Q Clear(g_c), s	19.9	9.7	9.7	12.5	15.7	15.7	3.5	0.0	13.3	1.6	0.0	9.6
Prop In Lane	1.00		0.12	1.00		0.03	1.00		0.09	1.00		0.21
Lane Grp Cap(c), veh/h	243	899	923	348	899	940	148	0	451	57	0	344
V/C Ratio(X)	0.15	0.43	0.43	0.11	0.61	0.61	0.55	0.00	0.79	0.63	0.00	0.72
Avail Cap(c_a), veh/h	243	899	923	348	899	940	227	0	855	136	0	738
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.1	9.9	9.9	13.7	11.3	11.3	30.5	0.0	24.2	33.4	0.0	26.2
Incr Delay (d2), s/veh	1.3	1.5	1.5	0.7	3.0	2.9	3.2	0.0	3.1	10.8	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.2	3.3	0.4	5.4	5.6	1.4	0.0	5.3	0.7	0.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.4	11.4	11.3	14.3	14.3	14.2	33.7	0.0	27.3	44.2	0.0	29.0
LnGrp LOS	B	B	B	B	B	B	C	A	C	D	A	C
Approach Vol, veh/h		815			1154			437			285	
Approach Delay, s/veh		11.7			14.2			28.5			31.0	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.5	22.2		41.5	10.5	18.2		41.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	6.0	34.5		37.5	10.0	30.5		37.5				
Max Q Clear Time (g_c+1), s	13.6	15.3		21.9	5.5	11.6		17.7				
Green Ext Time (p_c), s	0.0	1.9		4.5	0.1	1.2		7.3				
Intersection Summary												
HCM 6th Ctrl Delay											17.6	
HCM 6th LOS											B	

Gateway Downtown San Bernardino
9: D St. & 5th St.

Opening Year (2023) PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	672	48	33	884	39	121	163	24	40	118	89
Future Volume (veh/h)	70	672	48	33	884	39	121	163	24	40	118	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	75	723	52	35	951	42	130	175	26	43	127	96
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	2061	148	435	2127	94	287	718	105	302	459	319
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	507	3182	229	621	3284	145	1030	2936	428	1047	1880	1306
Grp Volume(v), veh/h	75	382	393	35	488	505	130	99	102	43	113	110
Grp Sat Flow(s),veh/h/ln	507	1683	1728	621	1683	1745	1030	1683	1681	1047	1683	1503
Q Serve(g_s), s	6.4	7.7	7.7	2.0	10.6	10.6	8.7	3.5	3.6	2.6	4.0	4.4
Cycle Q Clear(g_c), s	17.0	7.7	7.7	9.7	10.6	10.6	13.2	3.5	3.6	6.2	4.0	4.4
Prop In Lane	1.00		0.13	1.00		0.08	1.00		0.25	1.00		0.87
Lane Grp Cap(c), veh/h	353	1090	1119	435	1090	1130	287	411	411	302	411	367
V/C Ratio(X)	0.21	0.35	0.35	0.08	0.45	0.45	0.45	0.24	0.25	0.14	0.27	0.30
Avail Cap(c_a), veh/h	353	1090	1119	435	1090	1130	508	772	771	526	772	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.7	6.0	6.0	8.2	6.5	6.5	28.2	22.5	22.5	25.0	22.7	22.8
Incr Delay (d2), s/veh	1.4	0.9	0.9	0.4	1.3	1.3	1.1	0.3	0.3	0.2	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.2	2.3	0.3	3.1	3.2	2.1	1.3	1.4	0.6	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.1	6.8	6.8	8.5	7.8	7.8	29.3	22.8	22.8	25.2	23.0	23.3
LnGrp LOS	B	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		850			1028			331			266	
Approach Delay, s/veh		7.3			7.8			25.4			23.5	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.1		52.0		22.1		52.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		34.0		48.0		34.0		48.0				
Max Q Clear Time (g_c+I1), s		15.2		19.0		8.2		12.6				
Green Ext Time (p_c), s		1.5		6.0		1.4		7.5				
Intersection Summary												
HCM 6th Ctrl Delay											11.7	
HCM 6th LOS											B	

Gateway Downtown San Bernardino
10: Arrowhead Ave. & 5th St.

Opening Year (2023) PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	56	673	46	38	776	38	99	329	92	26	156	55
Future Volume (veh/h)	56	673	46	38	776	38	99	329	92	26	156	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	60	716	49	40	826	40	105	350	98	28	166	59
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	402	2073	142	443	2121	103	287	623	172	200	589	201
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	571	3194	218	628	3268	158	1028	2590	714	839	2448	836
Grp Volume(v), veh/h	60	377	388	40	425	441	105	225	223	28	112	113
Grp Sat Flow(s),veh/h/ln	571	1683	1729	628	1683	1743	1028	1683	1620	839	1683	1600
Q Serve(g_s), s	4.0	7.3	7.4	2.2	8.6	8.6	6.7	8.5	8.8	2.2	3.9	4.2
Cycle Q Clear(g_c), s	12.6	7.3	7.4	9.6	8.6	8.6	10.9	8.5	8.8	11.0	3.9	4.2
Prop In Lane	1.00		0.13	1.00		0.09	1.00		0.44	1.00		0.52
Lane Grp Cap(c), veh/h	402	1092	1122	443	1092	1131	287	405	390	200	405	385
V/C Ratio(X)	0.15	0.35	0.35	0.09	0.39	0.39	0.37	0.56	0.57	0.14	0.28	0.29
Avail Cap(c_a), veh/h	402	1092	1122	443	1092	1131	537	814	783	404	814	773
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.9	5.7	5.8	7.9	6.0	6.0	26.9	24.1	24.2	29.0	22.4	22.5
Incr Delay (d2), s/veh	0.8	0.9	0.8	0.4	1.0	1.0	0.8	1.2	1.3	0.3	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln0.5		2.1	2.1	0.3	2.4	2.5	1.6	3.2	3.2	0.4	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.7	6.6	6.6	8.3	7.0	7.0	27.7	25.3	25.5	29.4	22.7	22.9
LnGrp LOS	A	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		825			906			553			253	
Approach Delay, s/veh		6.8			7.1			25.9			23.5	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		21.4		51.0		21.4		51.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		35.0		47.0		35.0		47.0				
Max Q Clear Time (g_c+I1), s		12.9		14.6		13.0		11.6				
Green Ext Time (p_c), s		3.0		5.7		1.3		6.3				
Intersection Summary												
HCM 6th Ctrl Delay											12.7	
HCM 6th LOS											B	

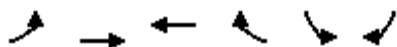
Gateway Downtown San Bernardino
1: Mt. Vernon Ave. & 5th St.

Opening Year + Cumulative Projects AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	563	139	63	467	88	73	333	49	142	522	67
Future Volume (veh/h)	71	563	139	63	467	88	73	333	49	142	522	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	76	605	149	68	502	95	78	358	53	153	561	72
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	1125	276	88	1181	222	242	984	144	323	1003	128
Arrive On Green	0.06	0.42	0.42	0.06	0.42	0.42	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1594	2670	656	1594	2824	532	709	2943	432	870	2999	384
Grp Volume(v), veh/h	76	381	373	68	298	299	78	203	208	153	314	319
Grp Sat Flow(s),veh/h/ln	1594	1683	1643	1594	1683	1673	709	1683	1691	870	1683	1700
Q Serve(g_s), s	3.0	10.7	10.8	2.7	7.9	8.0	6.4	5.8	5.9	10.3	9.7	9.7
Cycle Q Clear(g_c), s	3.0	10.7	10.8	2.7	7.9	8.0	16.2	5.8	5.9	16.2	9.7	9.7
Prop In Lane	1.00		0.40	1.00		0.32	1.00		0.26	1.00		0.23
Lane Grp Cap(c), veh/h	93	709	692	88	704	700	242	563	565	323	563	568
V/C Ratio(X)	0.82	0.54	0.54	0.77	0.42	0.43	0.32	0.36	0.37	0.47	0.56	0.56
Avail Cap(c_a), veh/h	151	709	692	176	704	700	290	677	681	383	677	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	13.7	13.7	29.6	13.0	13.1	23.9	16.0	16.0	22.1	17.3	17.3
Incr Delay (d2), s/veh	16.3	2.9	3.0	13.5	1.9	1.9	0.8	0.4	0.4	1.1	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.9	3.9	1.3	2.9	2.9	1.0	2.0	2.0	2.0	3.4	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	16.6	16.7	43.0	14.9	15.0	24.7	16.4	16.4	23.2	18.1	18.2
LnGrp LOS	D	B	B	D	B	B	C	B	B	C	B	B
Approach Vol, veh/h		830			665			489			786	
Approach Delay, s/veh		19.3			17.8			17.7			19.1	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.2	7.5	30.7		25.2	7.7	30.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		25.5	7.0	25.5		25.5	6.0	26.5				
Max Q Clear Time (g_c+I1), s		18.2	4.7	12.8		18.2	5.0	10.0				
Green Ext Time (p_c), s		1.7	0.0	3.6		2.7	0.0	3.1				
Intersection Summary												
HCM 6th Ctrl Delay				18.6								
HCM 6th LOS				B								



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	849	657	51	116	17
Future Volume (veh/h)	8	849	657	51	116	17
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1772	1673	1673
Adj Flow Rate, veh/h	9	923	714	55	126	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	552	1848	1738	134	174	25
Arrive On Green	0.55	0.55	0.55	0.55	0.13	0.13
Sat Flow, veh/h	626	3455	3256	244	1362	195
Grp Volume(v), veh/h	9	923	379	390	145	0
Grp Sat Flow(s),veh/h/ln	626	1683	1683	1728	1567	0
Q Serve(g_s), s	0.2	4.2	3.2	3.2	2.2	0.0
Cycle Q Clear(g_c), s	3.5	4.2	3.2	3.2	2.2	0.0
Prop In Lane	1.00			0.14	0.87	0.12
Lane Grp Cap(c), veh/h	552	1848	924	948	200	0
V/C Ratio(X)	0.02	0.50	0.41	0.41	0.73	0.00
Avail Cap(c_a), veh/h	1272	5721	2860	2935	1902	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	4.3	3.5	3.2	3.2	10.4	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.3	0.3	4.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.1	0.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.3	3.7	3.5	3.5	15.3	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		932	769		145	
Approach Delay, s/veh		3.7	3.5		15.3	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				17.6	7.2	17.6
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				42.0	30.0	42.0
Max Q Clear Time (g_c+I1), s				6.2	4.2	5.2
Green Ext Time (p_c), s				7.4	0.4	5.0

Intersection Summary

HCM 6th Ctrl Delay	4.5
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
3: I-215 SB Ramps & 5th St.

Opening Year + Cumulative Projects AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑		↔↔	↑↑					↔	↔	↔
Traffic Volume (veh/h)	0	551	397	385	515	0	0	0	0	720	13	185
Future Volume (veh/h)	0	551	397	385	515	0	0	0	0	720	13	185
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1772	1772	1575	1772	0				1673	1673	1673
Adj Flow Rate, veh/h	0	568	409	397	531	0				807	0	132
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1954	642	443	2089	0				888	0	395
Arrive On Green	0.00	0.43	0.43	0.30	1.00	0.00				0.28	0.00	0.28
Sat Flow, veh/h	0	4820	1502	2910	3455	0				3188	0	1418
Grp Volume(v), veh/h	0	568	409	397	531	0				807	0	132
Grp Sat Flow(s),veh/h/ln	0	1524	1502	1455	1683	0				1594	0	1418
Q Serve(g_s), s	0.0	8.9	23.6	14.4	0.0	0.0				26.9	0.0	8.1
Cycle Q Clear(g_c), s	0.0	8.9	23.6	14.4	0.0	0.0				26.9	0.0	8.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1954	642	443	2089	0				888	0	395
V/C Ratio(X)	0.00	0.29	0.64	0.90	0.25	0.00				0.91	0.00	0.33
Avail Cap(c_a), veh/h	0	1954	642	569	2089	0				1310	0	583
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.92	0.92	0.95	0.95	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	20.6	24.8	37.4	0.0	0.0				38.3	0.0	31.6
Incr Delay (d2), s/veh	0.0	0.3	4.4	11.8	0.3	0.0				5.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.1	8.7	4.9	0.1	0.0				10.8	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.9	29.2	49.2	0.3	0.0				43.6	0.0	31.7
LnGrp LOS	A	C	C	D	A	A				D	A	C
Approach Vol, veh/h		977			928						939	
Approach Delay, s/veh		24.4			21.2						41.9	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	31.2	52.3		36.4		73.6						
Change Period (Y+Rc), s	4.5	5.3		5.8		5.3						
Max Green Setting (Gmax), s	1.5	27.7		45.2		53.7						
Max Q Clear Time (g_c+11g), s	1.5	25.6		28.9		2.0						
Green Ext Time (p_c), s	0.4	1.0		1.7		2.3						

Intersection Summary

HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

Opening Year + Cumulative Projects AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑↑	↔	↔	↔	↔			
Traffic Volume (veh/h)	166	1106	0	0	645	217	254	2	612	0	0	0
Future Volume (veh/h)	166	1106	0	0	645	217	254	2	612	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1575	1772	0	0	1772	1772	1673	1673	1772			
Adj Flow Rate, veh/h	178	1189	0	0	694	233	183	0	756			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	230	2079	0	0	3006	731	449	0	838			
Arrive On Green	0.03	0.20	0.00	0.00	0.49	0.49	0.28	0.00	0.28			
Sat Flow, veh/h	2910	3455	0	0	6343	1482	1594	0	2977			
Grp Volume(v), veh/h	178	1189	0	0	694	233	183	0	756			
Grp Sat Flow(s),veh/h/ln	1455	1683	0	0	1524	1482	1594	0	1488			
Q Serve(g_s), s	6.7	35.0	0.0	0.0	7.2	10.4	10.3	0.0	26.9			
Cycle Q Clear(g_c), s	6.7	35.0	0.0	0.0	7.2	10.4	10.3	0.0	26.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	230	2079	0	0	3006	731	449	0	838			
V/C Ratio(X)	0.77	0.57	0.00	0.00	0.23	0.32	0.41	0.00	0.90			
Avail Cap(c_a), veh/h	265	2079	0	0	3006	731	785	0	1467			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.82	0.82	0.00	0.00	0.91	0.91	1.00	0.00	1.00			
Uniform Delay (d), s/veh	52.6	30.7	0.0	0.0	15.9	16.8	32.1	0.0	38.1			
Incr Delay (d2), s/veh	8.1	0.9	0.0	0.0	0.2	1.0	0.2	0.0	2.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.8	15.9	0.0	0.0	2.4	3.6	3.9	0.0	9.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.7	31.6	0.0	0.0	16.1	17.8	32.3	0.0	40.1			
LnGrp LOS	E	C	A	A	B	B	C	A	D			
Approach Vol, veh/h		1367			927			939				
Approach Delay, s/veh		35.4			16.5			38.6				
Approach LOS		D			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		73.2			13.7	59.6		36.8				
Change Period (Y+Rc), s		5.3			5.0	5.3		5.8				
Max Green Setting (Gmax), s		44.7			10.0	29.7		54.2				
Max Q Clear Time (g_c+I1), s		37.0			8.7	12.4		28.9				
Green Ext Time (p_c), s		3.4			0.0	3.2		2.0				

Intersection Summary

HCM 6th Ctrl Delay	30.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
5: H St. & 5th St.

Opening Year + Cumulative Projects AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	1470	113	2	619	23	52	79	9	33	119	191
Future Volume (veh/h)	135	1470	113	2	619	23	52	79	9	33	119	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	150	1633	126	2	688	26	58	88	10	37	132	212
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	1940	953	4	1536	58	307	515	58	348	571	427
Arrive On Green	0.11	0.58	0.58	0.00	0.46	0.46	0.06	0.17	0.17	0.06	0.17	0.17
Sat Flow, veh/h	1594	3367	1499	1594	3308	125	1594	3051	341	1594	3367	1502
Grp Volume(v), veh/h	150	1633	126	2	350	364	58	48	50	37	132	212
Grp Sat Flow(s),veh/h/ln	1594	1683	1499	1594	1683	1749	1594	1683	1708	1594	1683	1502
Q Serve(g_s), s	7.7	33.2	2.8	0.1	11.7	11.7	2.4	2.0	2.1	1.5	2.8	9.8
Cycle Q Clear(g_c), s	7.7	33.2	2.8	0.1	11.7	11.7	2.4	2.0	2.1	1.5	2.8	9.8
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	183	1940	953	4	782	812	307	284	288	348	571	427
V/C Ratio(X)	0.82	0.84	0.13	0.46	0.45	0.45	0.19	0.17	0.17	0.11	0.23	0.50
Avail Cap(c_a), veh/h	325	1940	953	115	782	812	327	788	800	367	1576	875
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	14.5	6.0	41.5	15.1	15.1	25.8	29.6	29.6	25.4	29.9	24.8
Incr Delay (d2), s/veh	8.8	4.6	0.3	61.6	1.9	1.8	0.3	0.3	0.3	0.1	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	11.5	0.8	0.1	4.4	4.6	0.9	0.8	0.8	0.6	1.1	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.8	19.1	6.3	103.1	16.9	16.9	26.1	29.9	29.9	25.5	30.1	25.7
LnGrp LOS	D	B	A	F	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1909			716			156			381	
Approach Delay, s/veh		20.3			17.1			28.5			27.2	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	18.1	4.2	52.0	8.9	18.1	13.6	42.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	39.0	6.0	48.0	6.0	39.0	17.0	37.0				
Max Q Clear Time (g_c+1), s	13.5	4.1	2.1	35.2	4.4	11.8	9.7	13.7				
Green Ext Time (p_c), s	0.0	0.5	0.0	9.0	0.0	1.5	0.2	4.2				
Intersection Summary												
HCM 6th Ctrl Delay											20.8	
HCM 6th LOS											C	

Gateway Downtown San Bernardino
6: G St. & 5th St.

Opening Year + Cumulative Projects AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	1419	20	10	584	52	5	29	3	73	76	52
Future Volume (veh/h)	81	1419	20	10	584	52	5	29	3	73	76	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1673	1772	1673	1673	1772
Adj Flow Rate, veh/h	89	1559	22	11	642	57	5	32	3	80	84	57
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	553	2465	35	258	2268	201	96	387	35	206	170	121
Arrive On Green	0.73	0.73	0.73	0.73	0.73	0.73	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	667	3398	48	290	3127	277	170	2651	240	763	1169	827
Grp Volume(v), veh/h	89	771	810	11	345	354	22	0	18	127	0	94
Grp Sat Flow(s),veh/h/ln	667	1683	1763	290	1683	1721	1588	0	1473	1389	0	1370
Q Serve(g_s), s	3.3	14.4	14.5	1.2	4.4	4.4	0.0	0.0	0.7	4.2	0.0	3.9
Cycle Q Clear(g_c), s	7.7	14.4	14.5	15.7	4.4	4.4	0.7	0.0	0.7	5.2	0.0	3.9
Prop In Lane	1.00		0.03	1.00		0.16	0.23		0.16	0.63		0.60
Lane Grp Cap(c), veh/h	553	1221	1279	258	1221	1248	303	0	215	297	0	200
V/C Ratio(X)	0.16	0.63	0.63	0.04	0.28	0.28	0.07	0.00	0.09	0.43	0.00	0.47
Avail Cap(c_a), veh/h	553	1221	1279	258	1221	1248	737	0	641	689	0	596
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.3	4.3	4.3	8.3	2.9	2.9	22.9	0.0	22.9	24.8	0.0	24.3
Incr Delay (d2), s/veh	0.6	2.5	2.4	0.3	0.6	0.6	0.1	0.0	0.2	1.0	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.8	2.9	0.1	0.8	0.8	0.3	0.0	0.2	1.7	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.9	6.8	6.7	8.6	3.5	3.5	23.0	0.0	23.1	25.7	0.0	26.0
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1670			710			40			221	
Approach Delay, s/veh		6.7			3.6			23.1			25.9	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.1		49.0		13.1		49.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		27.0		45.0		27.0		45.0				
Max Q Clear Time (g_c+I1), s		2.7		16.5		7.2		17.7				
Green Ext Time (p_c), s		0.1		14.3		1.1		4.6				
Intersection Summary												
HCM 6th Ctrl Delay				7.7								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
7: F St. & 5th St.

Opening Year + Cumulative Projects AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	1404	11	5	602	20	6	23	9	9	16	32
Future Volume (veh/h)	70	1404	11	5	602	20	6	23	9	9	16	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.96	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1673	1772	1673	1673	1772
Adj Flow Rate, veh/h	77	1543	12	5	662	22	7	25	10	10	18	35
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	603	2647	21	293	2570	85	99	188	70	109	120	120
Arrive On Green	0.77	0.77	0.77	0.77	0.77	0.77	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	677	3424	27	297	3324	110	232	1975	731	296	1262	1264
Grp Volume(v), veh/h	77	758	797	5	335	349	23	0	19	28	0	35
Grp Sat Flow(s),veh/h/ln	677	1683	1767	297	1683	1752	1583	0	1356	1557	0	1264
Q Serve(g_s), s	2.2	11.3	11.3	0.4	3.4	3.4	0.0	0.0	0.8	0.0	0.0	1.6
Cycle Q Clear(g_c), s	5.6	11.3	11.3	11.8	3.4	3.4	0.8	0.0	0.8	0.9	0.0	1.6
Prop In Lane	1.00		0.02	1.00		0.06	0.30		0.54	0.36		1.00
Lane Grp Cap(c), veh/h	603	1301	1366	293	1301	1354	228	0	129	229	0	120
V/C Ratio(X)	0.13	0.58	0.58	0.02	0.26	0.26	0.10	0.00	0.14	0.12	0.00	0.29
Avail Cap(c_a), veh/h	603	1301	1366	293	1301	1354	701	0	558	692	0	520
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	2.8	2.8	2.8	5.3	2.0	2.0	25.2	0.0	25.2	25.3	0.0	25.6
Incr Delay (d2), s/veh	0.4	1.9	1.8	0.1	0.5	0.5	0.2	0.0	0.5	0.2	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.4	1.4	0.0	0.4	0.4	0.3	0.0	0.2	0.4	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.2	4.8	4.7	5.4	2.4	2.4	25.4	0.0	25.7	25.5	0.0	26.9
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1632			689			42			63	
Approach Delay, s/veh		4.6			2.4			25.6			26.3	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		9.8		51.0		9.8		51.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		25.0		47.0		25.0		47.0				
Max Q Clear Time (g_c+I1), s		2.8		13.3		3.6		13.8				
Green Ext Time (p_c), s		0.1		14.9		0.2		4.4				

Intersection Summary

HCM 6th Ctrl Delay	4.9
HCM 6th LOS	A

Gateway Downtown San Bernardino
8: E St. & 5th St.

Opening Year + Cumulative Projects AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1306	38	30	595	12	15	105	25	34	152	30
Future Volume (veh/h)	80	1306	38	30	595	12	15	105	25	34	152	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	85	1389	40	32	633	13	16	112	27	36	162	32
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	458	1911	55	216	1929	40	31	229	55	79	282	56
Arrive On Green	0.57	0.57	0.57	0.57	0.57	0.57	0.02	0.17	0.17	0.05	0.20	0.20
Sat Flow, veh/h	700	3341	96	335	3373	69	1594	1371	330	1594	1430	282
Grp Volume(v), veh/h	85	699	730	32	316	330	16	0	139	36	0	194
Grp Sat Flow(s),veh/h/ln	700	1683	1754	335	1683	1759	1594	0	1701	1594	0	1712
Q Serve(g_s), s	4.1	17.3	17.3	4.4	5.6	5.6	0.6	0.0	4.2	1.2	0.0	5.8
Cycle Q Clear(g_c), s	9.8	17.3	17.3	21.7	5.6	5.6	0.6	0.0	4.2	1.2	0.0	5.8
Prop In Lane	1.00		0.05	1.00		0.04	1.00		0.19	1.00		0.16
Lane Grp Cap(c), veh/h	458	963	1003	216	963	1006	31	0	285	79	0	338
V/C Ratio(X)	0.19	0.73	0.73	0.15	0.33	0.33	0.51	0.00	0.49	0.46	0.00	0.57
Avail Cap(c_a), veh/h	458	963	1003	216	963	1006	168	0	883	168	0	889
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.0	8.9	8.9	16.9	6.4	6.4	27.6	0.0	21.4	26.3	0.0	20.7
Incr Delay (d2), s/veh	0.9	4.8	4.6	1.4	0.9	0.9	12.3	0.0	1.3	4.1	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.4	5.6	0.4	1.6	1.6	0.3	0.0	1.6	0.5	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.9	13.7	13.5	18.3	7.3	7.3	39.9	0.0	22.7	30.4	0.0	22.2
LnGrp LOS	A	B	B	B	A	A	D	A	C	C	A	C
Approach Vol, veh/h		1514			678			155			230	
Approach Delay, s/veh		13.4			7.8			24.5			23.5	
Approach LOS		B			A			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	13.5		36.5	5.1	15.2		36.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	30.0	29.5		32.5	6.0	29.5		32.5				
Max Q Clear Time (g_c+1), s	13.2	6.2		19.3	2.6	7.8		23.7				
Green Ext Time (p_c), s	0.0	0.7		7.9	0.0	1.0		2.8				
Intersection Summary												
HCM 6th Ctrl Delay											13.5	
HCM 6th LOS											B	

Gateway Downtown San Bernardino
9: D St. & 5th St.

Opening Year + Cumulative Projects AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖ ↗		↖ ↗	↖ ↗		↖ ↗	↖ ↗		↖ ↗	↖ ↗	
Traffic Volume (veh/h)	59	1095	85	28	599	32	30	50	15	24	96	29
Future Volume (veh/h)	59	1095	85	28	599	32	30	50	15	24	96	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.97	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	63	1177	91	30	644	34	32	54	16	26	103	31
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	556	2266	175	331	2328	123	247	397	112	274	396	114
Arrive On Green	0.72	0.72	0.72	0.72	0.72	0.72	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	680	3166	244	391	3252	172	1111	2575	726	1163	2567	741
Grp Volume(v), veh/h	63	625	643	30	333	345	32	34	36	26	66	68
Grp Sat Flow(s),veh/h/ln	680	1683	1727	391	1683	1740	1111	1683	1617	1163	1683	1625
Q Serve(g_s), s	2.2	10.3	10.4	2.3	4.3	4.3	1.6	1.1	1.2	1.2	2.1	2.3
Cycle Q Clear(g_c), s	6.5	10.3	10.4	12.7	4.3	4.3	3.9	1.1	1.2	2.4	2.1	2.3
Prop In Lane	1.00		0.14	1.00		0.10	1.00		0.45	1.00		0.46
Lane Grp Cap(c), veh/h	556	1205	1236	331	1205	1246	247	259	249	274	259	250
V/C Ratio(X)	0.11	0.52	0.52	0.09	0.28	0.28	0.13	0.13	0.14	0.09	0.25	0.27
Avail Cap(c_a), veh/h	556	1205	1236	331	1205	1246	582	767	737	625	767	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.3	4.0	4.0	6.8	3.1	3.1	24.7	22.5	22.5	23.5	22.9	23.0
Incr Delay (d2), s/veh	0.4	1.6	1.6	0.5	0.6	0.6	0.2	0.2	0.3	0.1	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.0	2.1	0.2	0.8	0.8	0.4	0.4	0.4	0.3	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.7	5.5	5.5	7.4	3.7	3.7	24.9	22.7	22.7	23.7	23.4	23.5
LnGrp LOS	A	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		1331			708			102			160	
Approach Delay, s/veh		5.5			3.8			23.4			23.5	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.5		48.0		13.5		48.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		28.0		44.0		28.0		44.0				
Max Q Clear Time (g_c+I1), s		5.9		12.4		4.4		14.7				
Green Ext Time (p_c), s		0.4		10.7		0.7		4.7				
Intersection Summary												
HCM 6th Ctrl Delay				7.0								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
10: Arrowhead Ave. & 5th St.

Opening Year + Cumulative Projects AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	71	839	196	56	590	38	51	89	30	25	191	38
Future Volume (veh/h)	71	839	196	56	590	38	51	89	30	25	191	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	80	943	220	63	663	43	57	100	34	28	215	43
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	519	1880	438	340	2228	144	224	454	148	275	512	100
Arrive On Green	0.69	0.69	0.69	0.69	0.69	0.69	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	664	2709	631	432	3210	208	1002	2491	809	1115	2804	550
Grp Volume(v), veh/h	80	585	578	63	347	359	57	66	68	28	127	131
Grp Sat Flow(s),veh/h/ln	664	1683	1657	432	1683	1734	1002	1683	1617	1115	1683	1671
Q Serve(g_s), s	3.4	10.6	10.6	5.2	5.2	5.2	3.5	2.2	2.3	1.4	4.3	4.5
Cycle Q Clear(g_c), s	8.6	10.6	10.6	15.8	5.2	5.2	8.0	2.2	2.3	3.7	4.3	4.5
Prop In Lane	1.00		0.38	1.00		0.12	1.00		0.50	1.00		0.33
Lane Grp Cap(c), veh/h	519	1168	1150	340	1168	1204	224	307	295	275	307	305
V/C Ratio(X)	0.15	0.50	0.50	0.19	0.30	0.30	0.25	0.22	0.23	0.10	0.41	0.43
Avail Cap(c_a), veh/h	519	1168	1150	340	1168	1204	459	701	673	536	701	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.5	4.6	4.7	8.4	3.8	3.8	27.0	22.5	22.6	24.2	23.4	23.5
Incr Delay (d2), s/veh	0.6	1.5	1.6	1.2	0.7	0.6	0.6	0.3	0.4	0.2	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.4	2.4	0.5	1.2	1.2	0.8	0.8	0.8	0.4	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.1	6.2	6.2	9.6	4.5	4.5	27.6	22.9	23.0	24.4	24.3	24.5
LnGrp LOS	A	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		1243			769			191			286	
Approach Delay, s/veh		6.2			4.9			24.3			24.4	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		15.8		49.0		15.8		49.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		27.0		45.0		27.0		45.0				
Max Q Clear Time (g_c+I1), s		10.0		12.6		6.5		17.8				
Green Ext Time (p_c), s		0.8		9.9		1.4		5.4				
Intersection Summary												
HCM 6th Ctrl Delay				9.3								
HCM 6th LOS				A								

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	0	42	0	0	0	23	146	0	0	174	13
Future Vol, veh/h	13	0	42	0	0	0	23	146	0	0	174	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
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	14	0	46	0	0	0	25	159	0	0	189	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	326	405	102	304	412	80	203	0	0	159	0	0
Stage 1	196	196	-	209	209	-	-	-	-	-	-	-
Stage 2	130	209	-	95	203	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	603	533	933	625	529	964	1366	-	-	1418	-	-
Stage 1	787	737	-	774	728	-	-	-	-	-	-	-
Stage 2	860	728	-	901	732	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	594	522	933	586	518	964	1366	-	-	1418	-	-
Mov Cap-2 Maneuver	594	522	-	586	518	-	-	-	-	-	-	-
Stage 1	771	737	-	759	713	-	-	-	-	-	-	-
Stage 2	843	713	-	857	732	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.7		0		1.1		0	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1366	-	-	822	-	1418	-	-
HCM Lane V/C Ratio	0.018	-	-	0.073	-	-	-	-
HCM Control Delay (s)	7.7	0.1	-	9.7	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-	0	-	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	35	1495	608	56	34	41
Future Vol, veh/h	35	1495	608	56	34	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	30	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	1625	661	61	37	45

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	722	0	-	0	1581
Stage 1	-	-	-	-	692
Stage 2	-	-	-	-	889
Critical Hdwy	4.14	-	-	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	2.22	-	-	-	3.52
Pot Cap-1 Maneuver	876	-	-	-	100
Stage 1	-	-	-	-	458
Stage 2	-	-	-	-	362
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	876	-	-	-	96
Mov Cap-2 Maneuver	-	-	-	-	224
Stage 1	-	-	-	-	438
Stage 2	-	-	-	-	362

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	18.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	876	-	-	-	347
HCM Lane V/C Ratio	0.043	-	-	-	0.235
HCM Control Delay (s)	9.3	-	-	-	18.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

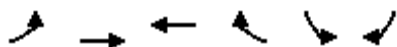
Gateway Downtown San Bernardino
1: Mt. Vernon Ave. & 5th St.

Opening Year+Cumulative Projects PM

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	109	588	111	66	634	165	140	625	97	126	430	93
Future Volume (veh/h)	109	588	111	66	634	165	140	625	97	126	430	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	115	619	117	69	667	174	147	658	102	133	453	98
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	1118	211	84	962	251	298	1103	171	227	1040	223
Arrive On Green	0.09	0.40	0.40	0.05	0.36	0.36	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1594	2816	531	1594	2640	688	765	2914	451	631	2748	590
Grp Volume(v), veh/h	115	369	367	69	425	416	147	380	380	133	276	275
Grp Sat Flow(s),veh/h/ln	1594	1683	1664	1594	1683	1645	765	1683	1682	631	1683	1654
Q Serve(g_s), s	5.0	11.9	11.9	3.0	15.0	15.1	12.4	12.7	12.7	13.8	8.5	8.7
Cycle Q Clear(g_c), s	5.0	11.9	11.9	3.0	15.0	15.1	21.1	12.7	12.7	26.5	8.5	8.7
Prop In Lane	1.00		0.32	1.00		0.42	1.00		0.27	1.00		0.36
Lane Grp Cap(c), veh/h	137	668	661	84	613	599	298	637	637	227	637	626
V/C Ratio(X)	0.84	0.55	0.55	0.82	0.69	0.69	0.49	0.60	0.60	0.59	0.43	0.44
Avail Cap(c_a), veh/h	137	668	661	159	613	599	298	637	637	227	637	626
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	16.3	16.3	32.8	18.9	18.9	24.1	17.5	17.5	28.6	16.2	16.2
Incr Delay (d2), s/veh	35.3	3.3	3.3	17.1	6.3	6.5	1.3	1.5	1.5	3.8	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	4.6	4.6	1.5	6.2	6.1	2.1	4.6	4.6	2.3	3.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.8	19.6	19.7	49.9	25.3	25.4	25.3	19.0	19.0	32.4	16.6	16.7
LnGrp LOS	E	B	B	D	C	C	C	B	B	C	B	B
Approach Vol, veh/h		851			910			907			684	
Approach Delay, s/veh		26.0			27.2			20.0			19.7	
Approach LOS		C			C			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.5	7.7	31.8		30.5	10.0	29.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		26.5	7.0	24.5		26.5	6.0	25.5				
Max Q Clear Time (g_c+I1), s		23.1	5.0	13.9		28.5	7.0	17.1				
Green Ext Time (p_c), s		1.7	0.0	3.2		0.0	0.0	3.2				
Intersection Summary												
HCM 6th Ctrl Delay				23.4								
HCM 6th LOS				C								



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	906	988	119	94	7
Future Volume (veh/h)	12	906	988	119	94	7
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1772	1673	1673
Adj Flow Rate, veh/h	12	915	998	120	95	7
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	422	2683	2411	290	121	9
Arrive On Green	0.80	0.80	0.80	0.80	0.08	0.08
Sat Flow, veh/h	451	3455	3114	364	1458	107
Grp Volume(v), veh/h	12	915	555	563	103	0
Grp Sat Flow(s),veh/h/ln	451	1683	1683	1706	1581	0
Q Serve(g_s), s	0.6	5.0	6.6	6.7	4.3	0.0
Cycle Q Clear(g_c), s	7.2	5.0	6.6	6.7	4.3	0.0
Prop In Lane	1.00			0.21	0.92	0.07
Lane Grp Cap(c), veh/h	422	2683	1341	1360	131	0
V/C Ratio(X)	0.03	0.34	0.41	0.41	0.79	0.00
Avail Cap(c_a), veh/h	422	2683	1341	1360	689	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	3.1	1.9	2.0	2.0	29.9	0.0
Incr Delay (d2), s/veh	0.1	0.3	0.9	0.9	9.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.7	0.7	1.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.3	2.2	3.0	3.0	39.8	0.0
LnGrp LOS	A	A	A	A	D	A
Approach Vol, veh/h		927	1118		103	
Approach Delay, s/veh		2.2	3.0		39.8	
Approach LOS		A	A		D	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				57.0	9.5	57.0
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				53.0	29.0	53.0
Max Q Clear Time (g_c+I1), s				9.2	6.3	8.7
Green Ext Time (p_c), s				7.6	0.2	8.8
Intersection Summary						
HCM 6th Ctrl Delay			4.4			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

Gateway Downtown San Bernardino
3: I-215 SB Ramps & 5th St.

Opening Year+Cumulative Projects PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑		↔↔	↑↑					↔	↔	↔
Traffic Volume (veh/h)	0	649	353	540	919	0	0	0	0	273	5	189
Future Volume (veh/h)	0	649	353	540	919	0	0	0	0	273	5	189
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1772	1772	1575	1772	0				1673	1673	1772
Adj Flow Rate, veh/h	0	662	360	551	938	0				341	0	130
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	2171	713	634	2501	0				426	0	200
Arrive On Green	0.00	0.47	0.47	0.07	0.25	0.00				0.13	0.00	0.13
Sat Flow, veh/h	0	4820	1502	2910	3455	0				3188	0	1498
Grp Volume(v), veh/h	0	662	360	551	938	0				341	0	130
Grp Sat Flow(s),veh/h/ln	0	1524	1502	1455	1683	0				1594	0	1498
Q Serve(g_s), s	0.0	8.0	14.9	16.9	20.8	0.0				9.3	0.0	7.4
Cycle Q Clear(g_c), s	0.0	8.0	14.9	16.9	20.8	0.0				9.3	0.0	7.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2171	713	634	2501	0				426	0	200
V/C Ratio(X)	0.00	0.30	0.50	0.87	0.38	0.00				0.80	0.00	0.65
Avail Cap(c_a), veh/h	0	2171	713	857	2501	0				786	0	370
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.94	0.94	0.86	0.86	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.5	16.3	40.5	16.6	0.0				37.8	0.0	37.0
Incr Delay (d2), s/veh	0.0	0.3	2.4	5.1	0.4	0.0				1.3	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.6	5.1	6.9	9.3	0.0				3.6	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	14.8	18.7	45.6	17.0	0.0				39.2	0.0	38.3
LnGrp LOS		A	B	D	B	A				D	A	D
Approach Vol, veh/h		1022			1489						471	
Approach Delay, s/veh		16.2			27.6						38.9	
Approach LOS		B			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	24.1	48.0		17.8		72.2						
Change Period (Y+Rc), s	4.5	5.3		5.8		5.3						
Max Green Setting (Gmax), s	26.5	25.7		22.2		56.7						
Max Q Clear Time (g_c+11g), s	11.9	16.9		11.3		22.8						
Green Ext Time (p_c), s	0.8	3.1		0.7		4.5						

Intersection Summary

HCM 6th Ctrl Delay	25.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

Opening Year+Cumulative Projects PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑			↑↑↑↑	↖	↗	↕	↖			
Traffic Volume (veh/h)	225	698	0	0	1061	731	398	2	475	0	0	0
Future Volume (veh/h)	225	698	0	0	1061	731	398	2	475	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1575	1772	0	0	1772	1772	1673	1673	1772			
Adj Flow Rate, veh/h	232	720	0	0	1094	754	576	0	314			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	259	2144	0	0	3002	736	764	0	357			
Arrive On Green	0.18	1.00	0.00	0.00	0.49	0.49	0.24	0.00	0.24			
Sat Flow, veh/h	2910	3455	0	0	6343	1494	3188	0	1488			
Grp Volume(v), veh/h	232	720	0	0	1094	754	576	0	314			
Grp Sat Flow(s),veh/h/ln	1455	1683	0	0	1524	1494	1594	0	1488			
Q Serve(g_s), s	7.0	0.0	0.0	0.0	10.0	44.3	15.1	0.0	18.3			
Cycle Q Clear(g_c), s	7.0	0.0	0.0	0.0	10.0	44.3	15.1	0.0	18.3			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	259	2144	0	0	3002	736	764	0	357			
V/C Ratio(X)	0.90	0.34	0.00	0.00	0.36	1.02	0.75	0.00	0.88			
Avail Cap(c_a), veh/h	259	2144	0	0	3002	736	999	0	466			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.90	0.90	0.00	0.00	0.35	0.35	1.00	0.00	1.00			
Uniform Delay (d), s/veh	36.6	0.0	0.0	0.0	14.1	22.8	31.7	0.0	33.0			
Incr Delay (d2), s/veh	27.7	0.4	0.0	0.0	0.1	26.2	1.6	0.0	12.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.2	0.1	0.0	0.0	3.1	18.9	5.7	0.0	7.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.3	0.4	0.0	0.0	14.2	49.0	33.3	0.0	45.0			
LnGrp LOS	E	A	A	A	B	F	C	A	D			
Approach Vol, veh/h		952			1848			890				
Approach Delay, s/veh		15.9			28.4			37.4				
Approach LOS		B			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		62.6			13.0	49.6		27.4				
Change Period (Y+Rc), s		5.3			5.0	5.3		5.8				
Max Green Setting (Gmax), s		50.7			8.0	37.7		28.2				
Max Q Clear Time (g_c+I1), s		2.0			9.0	46.3		20.3				
Green Ext Time (p_c), s		3.3			0.0	0.0		1.3				

Intersection Summary

HCM 6th Ctrl Delay	27.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
5: H St. & 5th St.

Opening Year+Cumulative Projects PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	850	90	5	1201	48	228	190	39	23	90	363
Future Volume (veh/h)	234	850	90	5	1201	48	228	190	39	23	90	363
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	244	885	94	5	1251	50	238	198	41	24	94	378
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	191	1627	819	10	1221	49	388	784	159	394	911	579
Arrive On Green	0.12	0.48	0.48	0.01	0.37	0.37	0.07	0.28	0.28	0.05	0.27	0.27
Sat Flow, veh/h	1594	3367	1491	1594	3300	132	1594	2785	565	1594	3367	1474
Grp Volume(v), veh/h	244	885	94	5	638	663	238	118	121	24	94	378
Grp Sat Flow(s),veh/h/ln	1594	1683	1491	1594	1683	1748	1594	1683	1667	1594	1683	1474
Q Serve(g_s), s	11.0	16.9	2.8	0.3	34.0	34.0	6.0	5.0	5.2	0.9	1.9	19.3
Cycle Q Clear(g_c), s	11.0	16.9	2.8	0.3	34.0	34.0	6.0	5.0	5.2	0.9	1.9	19.3
Prop In Lane	1.00		1.00	1.00		0.08	1.00		0.34	1.00		1.00
Lane Grp Cap(c), veh/h	191	1627	819	10	623	647	388	474	469	394	911	579
V/C Ratio(X)	1.28	0.54	0.11	0.48	1.02	1.03	0.61	0.25	0.26	0.06	0.10	0.65
Avail Cap(c_a), veh/h	191	1627	819	104	623	647	388	696	689	412	1393	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	16.6	10.0	45.5	28.9	28.9	25.5	25.5	25.6	21.3	25.1	23.0
Incr Delay (d2), s/veh	159.4	1.3	0.3	30.7	42.2	41.9	2.9	0.3	0.3	0.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	6.2	0.9	0.2	19.9	20.6	1.9	1.9	2.0	0.3	0.7	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	199.8	17.9	10.3	76.2	71.1	70.9	28.4	25.8	25.9	21.4	25.2	24.2
LnGrp LOS	F	B	B	E	F	F	C	C	C	C	C	C
Approach Vol, veh/h		1223			1306			477			496	
Approach Delay, s/veh		53.6			71.0			27.1			24.3	
Approach LOS		D			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	29.9	4.6	48.4	10.0	28.9	15.0	38.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	38.0	6.0	39.0	6.0	38.0	11.0	34.0				
Max Q Clear Time (g_c+1/2g), s	7.2	7.2	2.3	18.9	8.0	21.3	13.0	36.0				
Green Ext Time (p_c), s	0.0	1.3	0.0	6.2	0.0	1.7	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay											52.3	
HCM 6th LOS											D	

Gateway Downtown San Bernardino
6: G St. & 5th St.

Opening Year+Cumulative Projects PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	766	22	10	1182	134	13	115	15	112	111	99
Future Volume (veh/h)	93	766	22	10	1182	134	13	115	15	112	111	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1673	1772	1673	1673	1772
Adj Flow Rate, veh/h	95	782	22	10	1206	137	13	117	15	114	113	101
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	266	2307	65	449	2102	238	80	538	67	217	195	186
Arrive On Green	0.69	0.69	0.69	0.69	0.69	0.69	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	364	3343	94	605	3046	345	134	2544	316	678	921	878
Grp Volume(v), veh/h	95	394	410	10	665	678	76	0	69	173	0	155
Grp Sat Flow(s),veh/h/ln	364	1683	1754	605	1683	1708	1535	0	1458	1127	0	1350
Q Serve(g_s), s	14.7	7.7	7.7	0.6	16.4	16.6	0.0	0.0	3.2	9.1	0.0	8.3
Cycle Q Clear(g_c), s	31.3	7.7	7.7	8.2	16.4	16.6	8.3	0.0	3.2	12.3	0.0	8.3
Prop In Lane	1.00		0.05	1.00		0.20	0.17		0.22	0.66		0.65
Lane Grp Cap(c), veh/h	266	1162	1210	449	1162	1179	376	0	308	312	0	285
V/C Ratio(X)	0.36	0.34	0.34	0.02	0.57	0.58	0.20	0.00	0.22	0.55	0.00	0.54
Avail Cap(c_a), veh/h	266	1162	1210	449	1162	1179	541	0	467	449	0	432
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.5	5.1	5.1	6.8	6.4	6.5	26.4	0.0	26.5	30.7	0.0	28.5
Incr Delay (d2), s/veh	3.7	0.8	0.8	0.1	2.1	2.0	0.3	0.0	0.4	1.5	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.1	2.2	0.1	4.7	4.8	1.2	0.0	1.1	3.1	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.2	5.9	5.8	6.8	8.5	8.5	26.7	0.0	26.9	32.2	0.0	30.1
LnGrp LOS	B	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		899			1353			145			328	
Approach Delay, s/veh		7.2			8.5			26.8			31.2	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		21.2		60.0		21.2		60.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		56.0		26.0		56.0				
Max Q Clear Time (g_c+I1), s		10.3		33.3		14.3		18.6				
Green Ext Time (p_c), s		0.6		6.8		1.4		11.6				
Intersection Summary												
HCM 6th Ctrl Delay											11.8	
HCM 6th LOS											B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	788	35	17	1199	24	27	40	31	17	56	73
Future Volume (veh/h)	66	788	35	17	1199	24	27	40	31	17	56	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.97	0.98		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1673	1772	1673	1673	1772
Adj Flow Rate, veh/h	68	812	36	18	1236	25	28	41	32	18	58	75
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	346	2520	112	499	2590	52	123	137	109	85	172	157
Arrive On Green	0.77	0.77	0.77	0.77	0.77	0.77	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	394	3283	146	581	3375	68	393	1101	874	204	1381	1258
Grp Volume(v), veh/h	68	416	432	18	616	645	52	0	49	76	0	75
Grp Sat Flow(s),veh/h/ln	394	1683	1746	581	1683	1759	1037	0	1331	1586	0	1258
Q Serve(g_s), s	5.7	5.7	5.7	0.7	10.0	10.0	0.6	0.0	2.5	0.0	0.0	4.1
Cycle Q Clear(g_c), s	15.7	5.7	5.7	6.4	10.0	10.0	4.7	0.0	2.5	3.1	0.0	4.1
Prop In Lane	1.00		0.08	1.00		0.04	0.54		0.66	0.24		1.00
Lane Grp Cap(c), veh/h	346	1292	1340	499	1292	1350	204	0	166	258	0	157
V/C Ratio(X)	0.20	0.32	0.32	0.04	0.48	0.48	0.26	0.00	0.29	0.29	0.00	0.48
Avail Cap(c_a), veh/h	346	1292	1340	499	1292	1350	483	0	448	579	0	423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.0	2.7	2.7	3.7	3.2	3.2	29.8	0.0	29.5	29.8	0.0	30.2
Incr Delay (d2), s/veh	1.3	0.7	0.6	0.1	1.3	1.2	0.7	0.0	1.0	0.6	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln0.5	1.0	1.1	0.1	1.9	1.9	0.9	0.0	0.8	1.2	0.0	1.3	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.3	3.3	3.3	3.8	4.4	4.4	30.5	0.0	30.5	30.4	0.0	32.5
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		916			1279			101			151	
Approach Delay, s/veh		3.6			4.4			30.5			31.5	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.3		61.0		13.3		61.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		25.0		57.0		25.0		57.0				
Max Q Clear Time (g_c+I1), s		6.7		17.7		6.1		12.0				
Green Ext Time (p_c), s		0.4		7.3		0.7		10.8				
Intersection Summary												
HCM 6th Ctrl Delay				6.9								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
8: E St. & 5th St.

Opening Year+Cumulative Projects PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	39	745	53	38	1107	18	86	315	30	35	193	55
Future Volume (veh/h)	39	745	53	38	1107	18	86	315	30	35	193	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	40	768	55	39	1141	19	89	325	31	36	199	57
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	230	1689	121	330	1799	30	141	414	39	57	274	79
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.09	0.26	0.26	0.04	0.21	0.21
Sat Flow, veh/h	433	3180	228	595	3388	56	1594	1589	152	1594	1318	378
Grp Volume(v), veh/h	40	406	417	39	567	593	89	0	356	36	0	256
Grp Sat Flow(s),veh/h/ln	433	1683	1724	595	1683	1761	1594	0	1741	1594	0	1696
Q Serve(g_s), s	5.0	10.4	10.4	3.0	16.6	16.6	3.8	0.0	13.2	1.6	0.0	9.8
Cycle Q Clear(g_c), s	21.6	10.4	10.4	13.4	16.6	16.6	3.8	0.0	13.2	1.6	0.0	9.8
Prop In Lane	1.00		0.13	1.00		0.03	1.00		0.09	1.00		0.22
Lane Grp Cap(c), veh/h	230	894	916	330	894	935	141	0	454	57	0	353
V/C Ratio(X)	0.17	0.45	0.45	0.12	0.63	0.63	0.63	0.00	0.78	0.63	0.00	0.72
Avail Cap(c_a), veh/h	230	894	916	330	894	935	160	0	875	137	0	828
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.2	10.1	10.1	14.2	11.5	11.5	30.7	0.0	23.9	33.1	0.0	25.7
Incr Delay (d2), s/veh	1.6	1.7	1.6	0.7	3.4	3.3	6.4	0.0	3.0	10.7	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.5	3.6	0.4	5.8	6.0	1.6	0.0	5.3	0.7	0.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	11.8	11.7	15.0	15.0	14.8	37.1	0.0	27.0	43.8	0.0	28.6
LnGrp LOS	C	B	B	B	B	B	D	A	C	D	A	C
Approach Vol, veh/h		863			1199			445			292	
Approach Delay, s/veh		12.2			14.9			29.0			30.4	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.5	22.2		41.0	10.2	18.5		41.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	6.0	35.0		37.0	7.0	34.0		37.0				
Max Q Clear Time (g_c+1/3), s	13.6	15.2		23.6	5.8	11.8		18.6				
Green Ext Time (p_c), s	0.0	1.9		4.5	0.0	1.4		7.5				
Intersection Summary												
HCM 6th Ctrl Delay											17.9	
HCM 6th LOS											B	

Gateway Downtown San Bernardino
9: D St. & 5th St.

Opening Year+Cumulative Projects PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	698	54	33	917	39	127	163	24	40	118	94
Future Volume (veh/h)	74	698	54	33	917	39	127	163	24	40	118	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	80	751	58	35	986	42	137	175	26	43	127	101
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	339	2070	160	419	2152	92	279	719	105	296	451	328
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	491	3164	244	602	3289	140	1026	2936	428	1047	1839	1340
Grp Volume(v), veh/h	80	399	410	35	505	523	137	99	102	43	115	113
Grp Sat Flow(s),veh/h/ln	491	1683	1725	602	1683	1746	1026	1683	1681	1047	1683	1496
Q Serve(g_s), s	7.6	8.5	8.6	2.2	11.8	11.8	10.0	3.7	3.9	2.7	4.4	4.9
Cycle Q Clear(g_c), s	19.4	8.5	8.6	10.8	11.8	11.8	14.9	3.7	3.9	6.6	4.4	4.9
Prop In Lane	1.00		0.14	1.00		0.08	1.00		0.25	1.00		0.90
Lane Grp Cap(c), veh/h	339	1101	1129	419	1101	1143	279	412	412	296	412	367
V/C Ratio(X)	0.24	0.36	0.36	0.08	0.46	0.46	0.49	0.24	0.25	0.15	0.28	0.31
Avail Cap(c_a), veh/h	339	1101	1129	419	1101	1143	415	635	635	435	635	565
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.6	6.2	6.2	8.7	6.8	6.8	30.6	24.1	24.1	26.8	24.3	24.5
Incr Delay (d2), s/veh	1.6	0.9	0.9	0.4	1.4	1.3	1.3	0.3	0.3	0.2	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.5	2.6	0.3	3.5	3.6	2.4	1.4	1.5	0.7	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.2	7.2	7.1	9.1	8.2	8.1	31.9	24.4	24.4	27.0	24.7	25.0
LnGrp LOS	B	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		889			1063			338			271	
Approach Delay, s/veh		7.7			8.2			27.4			25.2	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.5		56.0		23.5		56.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		30.0		52.0		30.0		52.0				
Max Q Clear Time (g_c+I1), s		16.9		21.4		8.6		13.8				
Green Ext Time (p_c), s		1.3		6.5		1.4		8.0				
Intersection Summary												
HCM 6th Ctrl Delay				12.3								
HCM 6th LOS				B								

Gateway Downtown San Bernardino
10: Arrowhead Ave. & 5th St.

Opening Year+Cumulative Projects PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	689	52	38	793	38	110	330	92	26	156	60
Future Volume (veh/h)	60	689	52	38	793	38	110	330	92	26	156	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	64	733	55	40	844	40	117	351	98	28	166	64
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	388	2032	152	426	2097	99	294	648	178	208	598	221
Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	562	3171	238	615	3272	155	1024	2592	712	839	2391	883
Grp Volume(v), veh/h	64	389	399	40	434	450	117	226	223	28	115	115
Grp Sat Flow(s),veh/h/ln	562	1683	1725	615	1683	1744	1024	1683	1621	839	1683	1591
Q Serve(g_s), s	4.6	7.9	7.9	2.4	9.2	9.2	7.7	8.5	8.8	2.2	4.0	4.3
Cycle Q Clear(g_c), s	13.7	7.9	7.9	10.3	9.2	9.2	11.9	8.5	8.8	11.0	4.0	4.3
Prop In Lane	1.00		0.14	1.00		0.09	1.00		0.44	1.00		0.56
Lane Grp Cap(c), veh/h	388	1079	1106	426	1079	1117	294	421	405	208	421	398
V/C Ratio(X)	0.16	0.36	0.36	0.09	0.40	0.40	0.40	0.54	0.55	0.13	0.27	0.29
Avail Cap(c_a), veh/h	388	1079	1106	426	1079	1117	527	803	774	398	803	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.7	6.2	6.2	8.6	6.4	6.4	27.1	23.8	23.9	28.7	22.1	22.2
Incr Delay (d2), s/veh	0.9	0.9	0.9	0.4	1.1	1.1	0.9	1.1	1.2	0.3	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.3	2.3	0.3	2.7	2.7	1.8	3.2	3.2	0.4	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.6	7.1	7.1	9.0	7.5	7.5	27.9	24.9	25.1	29.0	22.5	22.6
LnGrp LOS	B	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		852			924			566			258	
Approach Delay, s/veh		7.3			7.5			25.6			23.3	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.3		51.0		22.3		51.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		35.0		47.0		35.0		47.0				
Max Q Clear Time (g_c+I1), s		13.9		15.7		13.0		12.3				
Green Ext Time (p_c), s		3.0		6.0		1.3		6.5				
Intersection Summary												
HCM 6th Ctrl Delay				13.0								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	0	41	0	0	0	23	326	0	0	305	13
Future Vol, veh/h	13	0	41	0	0	0	23	326	0	0	305	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
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	14	0	45	0	0	0	25	354	0	0	332	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	566	743	173	570	750	177	346	0	0	354	0	0
Stage 1	339	339	-	404	404	-	-	-	-	-	-	-
Stage 2	227	404	-	166	346	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	407	342	840	404	339	835	1210	-	-	1201	-	-
Stage 1	649	638	-	594	598	-	-	-	-	-	-	-
Stage 2	755	598	-	820	634	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	399	333	840	375	330	835	1210	-	-	1201	-	-
Mov Cap-2 Maneuver	399	333	-	375	330	-	-	-	-	-	-	-
Stage 1	632	638	-	579	582	-	-	-	-	-	-	-
Stage 2	735	582	-	776	634	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11		0		0.6		0	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1210	-	-	663	-	1201	-	-
HCM Lane V/C Ratio	0.021	-	-	0.089	-	-	-	-
HCM Control Delay (s)	8	0.1	-	11	0	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	-	0	-	-

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	33	895	1257	54	30	38
Future Vol, veh/h	33	895	1257	54	30	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	30	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	973	1366	59	33	41

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1425	0	-	0	1955 713
Stage 1	-	-	-	-	1396 -
Stage 2	-	-	-	-	559 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	473	-	-	-	56 374
Stage 1	-	-	-	-	195 -
Stage 2	-	-	-	-	536 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	473	-	-	-	52 374
Mov Cap-2 Maneuver	-	-	-	-	140 -
Stage 1	-	-	-	-	180 -
Stage 2	-	-	-	-	536 -






















Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	30.3
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	473	-	-	-	215
HCM Lane V/C Ratio	0.076	-	-	-	0.344
HCM Control Delay (s)	13.2	-	-	-	30.3
HCM Lane LOS	B	-	-	-	D
HCM 95th %tile Q(veh)	0.2	-	-	-	1.5

Gateway Downtown San Bernardino
1: Mt. Vernon Ave. & 5th St.

Opening Year + Cumulative Projects + Project AM

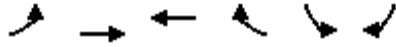
Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	565	139	65	469	90	73	333	51	144	522	67
Future Volume (veh/h)	71	565	139	65	469	90	73	333	51	144	522	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	76	608	149	70	504	97	78	358	55	155	561	72
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	1121	274	89	1174	225	243	983	150	324	1008	129
Arrive On Green	0.06	0.42	0.42	0.06	0.42	0.42	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1594	2673	654	1594	2816	539	709	2927	446	868	2999	384
Grp Volume(v), veh/h	76	382	375	70	300	301	78	205	208	155	314	319
Grp Sat Flow(s),veh/h/ln	1594	1683	1643	1594	1683	1672	709	1683	1689	868	1683	1700
Q Serve(g_s), s	3.0	10.8	10.9	2.8	8.0	8.1	6.4	5.8	5.9	10.5	9.7	9.7
Cycle Q Clear(g_c), s	3.0	10.8	10.9	2.8	8.0	8.1	16.2	5.8	5.9	16.4	9.7	9.7
Prop In Lane	1.00		0.40	1.00		0.32	1.00		0.26	1.00		0.23
Lane Grp Cap(c), veh/h	93	706	689	89	702	697	243	566	567	324	566	571
V/C Ratio(X)	0.82	0.54	0.54	0.79	0.43	0.43	0.32	0.36	0.37	0.48	0.56	0.56
Avail Cap(c_a), veh/h	150	706	689	176	702	697	289	675	678	381	675	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	13.9	13.9	29.6	13.1	13.2	23.9	15.9	16.0	22.2	17.2	17.2
Incr Delay (d2), s/veh	16.4	3.0	3.1	14.1	1.9	1.9	0.8	0.4	0.4	1.1	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.0	3.9	1.3	2.9	2.9	1.0	2.0	2.0	2.0	3.4	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	16.8	16.9	43.7	15.0	15.1	24.6	16.3	16.4	23.3	18.1	18.1
LnGrp LOS	D	B	B	D	B	B	C	B	B	C	B	B
Approach Vol, veh/h		833			671			491			788	
Approach Delay, s/veh		19.5			18.1			17.7			19.1	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.4	7.5	30.7		25.4	7.7	30.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		25.5	7.0	25.5		25.5	6.0	26.5				
Max Q Clear Time (g_c+I1), s		18.2	4.8	12.9		18.4	5.0	10.1				
Green Ext Time (p_c), s		1.7	0.0	3.6		2.6	0.0	3.1				
Intersection Summary												
HCM 6th Ctrl Delay			18.7									
HCM 6th LOS			B									

Gateway Downtown San Bernardino
2: 5th St. & J St.

Opening Year + Cumulative Projects + Project AM

Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	855	663	51	116	17
Future Volume (veh/h)	8	855	663	51	116	17
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1772	1673	1673
Adj Flow Rate, veh/h	9	929	721	55	126	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	550	1853	1745	133	173	25
Arrive On Green	0.55	0.55	0.55	0.55	0.13	0.13
Sat Flow, veh/h	622	3455	3258	242	1362	195
Grp Volume(v), veh/h	9	929	383	393	145	0
Grp Sat Flow(s),veh/h/ln	622	1683	1683	1728	1567	0
Q Serve(g_s), s	0.2	4.3	3.3	3.3	2.2	0.0
Cycle Q Clear(g_c), s	3.5	4.3	3.3	3.3	2.2	0.0
Prop In Lane	1.00			0.14	0.87	0.12
Lane Grp Cap(c), veh/h	550	1853	927	951	200	0
V/C Ratio(X)	0.02	0.50	0.41	0.41	0.73	0.00
Avail Cap(c_a), veh/h	1259	5695	2847	2923	1894	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	4.3	3.5	3.2	3.2	10.4	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.3	0.3	5.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.1	0.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.3	3.7	3.5	3.5	15.4	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		938	776		145	
Approach Delay, s/veh		3.7	3.5		15.4	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				17.7	7.2	17.7
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				42.0	30.0	42.0
Max Q Clear Time (g_c+I1), s				6.3	4.2	5.3
Green Ext Time (p_c), s				7.4	0.4	5.1
Intersection Summary						
HCM 6th Ctrl Delay			4.5			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

Gateway Downtown San Bernardino
3: I-215 SB Ramps & 5th St.

Opening Year + Cumulative Projects + Project AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑		↔↔	↑↑					↔	↔	↔
Traffic Volume (veh/h)	0	557	397	391	521	0	0	0	0	726	13	185
Future Volume (veh/h)	0	557	397	391	521	0	0	0	0	726	13	185
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1772	1772	1575	1772	0				1673	1673	1673
Adj Flow Rate, veh/h	0	574	409	403	537	0				813	0	132
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1936	636	449	2083	0				894	0	398
Arrive On Green	0.00	0.42	0.42	0.31	1.00	0.00				0.28	0.00	0.28
Sat Flow, veh/h	0	4820	1502	2910	3455	0				3188	0	1418
Grp Volume(v), veh/h	0	574	409	403	537	0				813	0	132
Grp Sat Flow(s),veh/h/ln	0	1524	1502	1455	1683	0				1594	0	1418
Q Serve(g_s), s	0.0	9.1	23.7	14.6	0.0	0.0				27.1	0.0	8.1
Cycle Q Clear(g_c), s	0.0	9.1	23.7	14.6	0.0	0.0				27.1	0.0	8.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1936	636	449	2083	0				894	0	398
V/C Ratio(X)	0.00	0.30	0.64	0.90	0.26	0.00				0.91	0.00	0.33
Avail Cap(c_a), veh/h	0	1936	636	569	2083	0				1310	0	583
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.91	0.91	0.95	0.95	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	20.9	25.1	37.2	0.0	0.0				38.2	0.0	31.4
Incr Delay (d2), s/veh	0.0	0.4	4.5	12.3	0.3	0.0				5.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.2	8.8	4.9	0.1	0.0				10.8	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	21.3	29.6	49.5	0.3	0.0				43.6	0.0	31.6
LnGrp LOS	A	C	C	D	A	A				D	A	C
Approach Vol, veh/h		983			940						945	
Approach Delay, s/veh		24.7			21.4						41.9	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	1.5	51.9		36.6		73.4						
Change Period (Y+Rc), s	4.5	5.3		5.8		5.3						
Max Green Setting (Gmax), s	1.5	27.7		45.2		53.7						
Max Q Clear Time (g_c+11g), s	1.5	25.7		29.1		2.0						
Green Ext Time (p_c), s	0.4	0.9		1.7		2.3						

Intersection Summary

HCM 6th Ctrl Delay	29.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

Opening Year + Cumulative Projects + Project AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑			↑↑↑↑	↖	↖	↕	↖			
Traffic Volume (veh/h)	166	1118	0	0	657	223	254	2	618	0	0	0
Future Volume (veh/h)	166	1118	0	0	657	223	254	2	618	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1575	1772	0	0	1772	1772	1673	1673	1772			
Adj Flow Rate, veh/h	178	1202	0	0	706	240	183	0	763			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	230	2071	0	0	2992	728	452	0	845			
Arrive On Green	0.03	0.20	0.00	0.00	0.49	0.49	0.28	0.00	0.28			
Sat Flow, veh/h	2910	3455	0	0	6343	1482	1594	0	2977			
Grp Volume(v), veh/h	178	1202	0	0	706	240	183	0	763			
Grp Sat Flow(s),veh/h/ln	1455	1683	0	0	1524	1482	1594	0	1488			
Q Serve(g_s), s	6.7	35.5	0.0	0.0	7.3	10.8	10.2	0.0	27.2			
Cycle Q Clear(g_c), s	6.7	35.5	0.0	0.0	7.3	10.8	10.2	0.0	27.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	230	2071	0	0	2992	728	452	0	845			
V/C Ratio(X)	0.77	0.58	0.00	0.00	0.24	0.33	0.40	0.00	0.90			
Avail Cap(c_a), veh/h	265	2071	0	0	2992	728	785	0	1467			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.82	0.82	0.00	0.00	0.90	0.90	1.00	0.00	1.00			
Uniform Delay (d), s/veh	52.6	31.0	0.0	0.0	16.1	17.0	31.9	0.0	37.9			
Incr Delay (d2), s/veh	8.1	1.0	0.0	0.0	0.2	1.1	0.2	0.0	2.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.8	16.2	0.0	0.0	2.5	3.7	3.9	0.0	9.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.7	32.0	0.0	0.0	16.3	18.1	32.1	0.0	40.2			
LnGrp LOS	E	C	A	A	B	B	C	A	D			
Approach Vol, veh/h		1380			946			946				
Approach Delay, s/veh		35.7			16.8			38.6				
Approach LOS		D			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		73.0			13.7	59.3		37.0				
Change Period (Y+Rc), s		5.3			5.0	5.3		5.8				
Max Green Setting (Gmax), s		44.7			10.0	29.7		54.2				
Max Q Clear Time (g_c+I1), s		37.5			8.7	12.8		29.2				
Green Ext Time (p_c), s		3.3			0.0	3.3		2.1				

Intersection Summary

HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
5: H St. & 5th St.

Opening Year + Cumulative Projects + Project AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	1488	113	3	637	24	52	79	11	35	119	191
Future Volume (veh/h)	135	1488	113	3	637	24	52	79	11	35	119	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	150	1653	126	3	708	27	58	88	12	39	132	212
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	1937	951	6	1537	59	307	503	67	347	570	427
Arrive On Green	0.11	0.58	0.58	0.00	0.46	0.46	0.06	0.17	0.17	0.06	0.17	0.17
Sat Flow, veh/h	1594	3367	1498	1594	3306	126	1594	2982	399	1594	3367	1502
Grp Volume(v), veh/h	150	1653	126	3	360	375	58	49	51	39	132	212
Grp Sat Flow(s),veh/h/ln	1594	1683	1498	1594	1683	1749	1594	1683	1698	1594	1683	1502
Q Serve(g_s), s	7.7	34.2	2.8	0.2	12.2	12.2	2.4	2.1	2.2	1.6	2.8	9.8
Cycle Q Clear(g_c), s	7.7	34.2	2.8	0.2	12.2	12.2	2.4	2.1	2.2	1.6	2.8	9.8
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	183	1937	951	6	782	813	307	284	287	347	570	427
V/C Ratio(X)	0.82	0.85	0.13	0.47	0.46	0.46	0.19	0.17	0.18	0.11	0.23	0.50
Avail Cap(c_a), veh/h	325	1937	951	115	782	813	327	787	794	366	1574	874
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	14.8	6.1	41.5	15.2	15.2	25.8	29.7	29.7	25.5	29.9	24.9
Incr Delay (d2), s/veh	8.8	5.0	0.3	44.9	1.9	1.9	0.3	0.3	0.3	0.1	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	11.9	0.8	0.1	4.6	4.7	0.9	0.8	0.9	0.6	1.1	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	19.8	6.4	86.3	17.2	17.1	26.1	30.0	30.0	25.6	30.2	25.8
LnGrp LOS	D	B	A	F	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1929			738			158			383	
Approach Delay, s/veh		20.9			17.4			28.6			27.3	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	18.1	4.3	52.0	8.9	18.1	13.6	42.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	39.0	6.0	48.0	6.0	39.0	17.0	37.0				
Max Q Clear Time (g_c+1), s	13.6	4.2	2.2	36.2	4.4	11.8	9.7	14.2				
Green Ext Time (p_c), s	0.0	0.5	0.0	8.6	0.0	1.5	0.2	4.3				
Intersection Summary												
HCM 6th Ctrl Delay				21.2								
HCM 6th LOS				C								

Gateway Downtown San Bernardino
6: G St. & 5th St.

Opening Year + Cumulative Projects + Project AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	1426	21	22	599	60	20	31	8	75	77	52
Future Volume (veh/h)	93	1426	21	22	599	60	20	31	8	75	77	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1673	1772	1673	1673	1772
Adj Flow Rate, veh/h	102	1567	23	24	658	66	22	34	9	82	85	57
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	537	2451	36	254	2229	223	167	219	61	208	174	122
Arrive On Green	0.72	0.72	0.72	0.72	0.72	0.72	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	652	3396	50	287	3089	309	474	1457	409	754	1161	811
Grp Volume(v), veh/h	102	776	814	24	358	366	33	0	32	128	0	96
Grp Sat Flow(s),veh/h/ln	652	1683	1763	287	1683	1715	901	0	1439	1353	0	1373
Q Serve(g_s), s	4.1	14.8	14.9	2.9	4.7	4.7	0.2	0.0	1.2	4.3	0.0	4.0
Cycle Q Clear(g_c), s	8.8	14.8	14.9	17.8	4.7	4.7	4.2	0.0	1.2	5.5	0.0	4.0
Prop In Lane	1.00		0.03	1.00		0.18	0.66		0.28	0.64		0.59
Lane Grp Cap(c), veh/h	537	1215	1272	254	1215	1237	231	0	216	298	0	206
V/C Ratio(X)	0.19	0.64	0.64	0.09	0.29	0.30	0.14	0.00	0.15	0.43	0.00	0.47
Avail Cap(c_a), veh/h	537	1215	1272	254	1215	1237	586	0	623	678	0	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.6	4.5	4.5	9.1	3.1	3.1	23.2	0.0	23.0	24.8	0.0	24.2
Incr Delay (d2), s/veh	0.8	2.6	2.5	0.7	0.6	0.6	0.3	0.0	0.3	1.0	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln0.5		3.0	3.1	0.2	0.9	0.9	0.4	0.0	0.4	1.7	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.4	7.1	7.0	9.8	3.7	3.7	23.5	0.0	23.3	25.8	0.0	25.9
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1692			748			65			224	
Approach Delay, s/veh		6.9			3.9			23.4			25.8	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.4		49.0		13.4		49.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		27.0		45.0		27.0		45.0				
Max Q Clear Time (g_c+I1), s		6.2		16.9		7.5		19.8				
Green Ext Time (p_c), s		0.2		14.5		1.1		5.0				
Intersection Summary												
HCM 6th Ctrl Delay				8.0								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
7: F St. & 5th St.

Opening Year + Cumulative Projects + Project AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	1416	12	5	620	20	8	23	9	9	16	34
Future Volume (veh/h)	71	1416	12	5	620	20	8	23	9	9	16	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.96	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1673	1772	1673	1673	1772
Adj Flow Rate, veh/h	78	1556	13	5	681	22	9	25	10	10	18	37
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	593	2643	22	289	2571	83	109	183	68	109	121	121
Arrive On Green	0.77	0.77	0.77	0.77	0.77	0.77	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	665	3421	29	293	3328	107	296	1910	713	294	1264	1264
Grp Volume(v), veh/h	78	765	804	5	344	359	25	0	19	28	0	37
Grp Sat Flow(s),veh/h/ln	665	1683	1767	293	1683	1752	1557	0	1361	1558	0	1264
Q Serve(g_s), s	2.3	11.5	11.6	0.4	3.6	3.6	0.0	0.0	0.8	0.0	0.0	1.7
Cycle Q Clear(g_c), s	5.9	11.5	11.6	12.0	3.6	3.6	0.8	0.0	0.8	0.9	0.0	1.7
Prop In Lane	1.00		0.02	1.00		0.06	0.36		0.52	0.36		1.00
Lane Grp Cap(c), veh/h	593	1300	1365	289	1300	1353	230	0	131	230	0	121
V/C Ratio(X)	0.13	0.59	0.59	0.02	0.26	0.27	0.11	0.00	0.15	0.12	0.00	0.30
Avail Cap(c_a), veh/h	593	1300	1365	289	1300	1353	691	0	559	692	0	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	2.8	2.9	2.9	5.4	2.0	2.0	25.2	0.0	25.2	25.3	0.0	25.6
Incr Delay (d2), s/veh	0.5	2.0	1.9	0.1	0.5	0.5	0.2	0.0	0.5	0.2	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.4	1.4	0.0	0.4	0.4	0.3	0.0	0.2	0.4	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.3	4.8	4.8	5.5	2.5	2.5	25.4	0.0	25.7	25.5	0.0	27.0
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1647			708			44			65	
Approach Delay, s/veh		4.7			2.5			25.6			26.4	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		9.8		51.0		9.8		51.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		25.0		47.0		25.0		47.0				
Max Q Clear Time (g_c+I1), s		2.8		13.6		3.7		14.0				
Green Ext Time (p_c), s		0.1		15.1		0.2		4.5				
Intersection Summary												
HCM 6th Ctrl Delay				5.0								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
8: E St. & 5th St.

Opening Year + Cumulative Projects + Project AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	1316	39	30	609	12	17	105	25	34	152	32
Future Volume (veh/h)	81	1316	39	30	609	12	17	105	25	34	152	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	86	1400	41	32	648	13	18	112	27	36	162	34
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	449	1903	56	212	1923	39	35	229	55	84	280	59
Arrive On Green	0.57	0.57	0.57	0.57	0.57	0.57	0.02	0.17	0.17	0.05	0.20	0.20
Sat Flow, veh/h	691	3339	98	331	3375	68	1594	1371	330	1594	1413	296
Grp Volume(v), veh/h	86	705	736	32	323	338	18	0	139	36	0	196
Grp Sat Flow(s),veh/h/ln	691	1683	1754	331	1683	1759	1594	0	1701	1594	0	1709
Q Serve(g_s), s	4.3	17.7	17.8	4.5	5.8	5.8	0.6	0.0	4.2	1.2	0.0	5.9
Cycle Q Clear(g_c), s	10.2	17.7	17.8	22.3	5.8	5.8	0.6	0.0	4.2	1.2	0.0	5.9
Prop In Lane	1.00		0.06	1.00		0.04	1.00		0.19	1.00		0.17
Lane Grp Cap(c), veh/h	449	959	999	212	959	1002	35	0	284	84	0	339
V/C Ratio(X)	0.19	0.74	0.74	0.15	0.34	0.34	0.52	0.00	0.49	0.43	0.00	0.58
Avail Cap(c_a), veh/h	449	959	999	212	959	1002	168	0	880	168	0	884
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.2	9.1	9.1	17.4	6.5	6.5	27.6	0.0	21.5	26.2	0.0	20.7
Incr Delay (d2), s/veh	0.9	5.0	4.8	1.5	1.0	0.9	11.5	0.0	1.3	3.4	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.5	5.8	0.4	1.6	1.7	0.3	0.0	1.6	0.5	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.2	14.1	13.9	18.9	7.5	7.4	39.1	0.0	22.8	29.6	0.0	22.3
LnGrp LOS	B	B	B	B	A	A	D	A	C	C	A	C
Approach Vol, veh/h		1527			693			157			232	
Approach Delay, s/veh		13.8			8.0			24.7			23.4	
Approach LOS		B			A			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	13.5		36.5	5.2	15.3		36.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	30.0	29.5		32.5	6.0	29.5		32.5				
Max Q Clear Time (g_c+1), s	13.2	6.2		19.8	2.6	7.9		24.3				
Green Ext Time (p_c), s	0.0	0.7		7.8	0.0	1.0		2.7				

Intersection Summary

HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Gateway Downtown San Bernardino
9: D St. & 5th St.

Opening Year + Cumulative Projects + Project AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1103	86	28	610	32	32	50	15	24	96	31
Future Volume (veh/h)	60	1103	86	28	610	32	32	50	15	24	96	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.97	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	65	1186	92	30	656	34	34	54	16	26	103	33
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	549	2260	175	327	2325	120	248	402	113	276	394	121
Arrive On Green	0.71	0.71	0.71	0.71	0.71	0.71	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	673	3165	245	387	3255	169	1109	2575	726	1163	2527	775
Grp Volume(v), veh/h	65	630	648	30	339	351	34	34	36	26	67	69
Grp Sat Flow(s),veh/h/ln	673	1683	1727	387	1683	1741	1109	1683	1618	1163	1683	1618
Q Serve(g_s), s	2.4	10.5	10.6	2.4	4.4	4.4	1.7	1.1	1.2	1.2	2.2	2.3
Cycle Q Clear(g_c), s	6.8	10.5	10.6	12.9	4.4	4.4	4.0	1.1	1.2	2.4	2.2	2.3
Prop In Lane	1.00		0.14	1.00		0.10	1.00		0.45	1.00		0.48
Lane Grp Cap(c), veh/h	549	1202	1233	327	1202	1243	248	263	252	276	263	253
V/C Ratio(X)	0.12	0.52	0.53	0.09	0.28	0.28	0.14	0.13	0.14	0.09	0.26	0.27
Avail Cap(c_a), veh/h	549	1202	1233	327	1202	1243	579	765	735	623	765	735
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.4	4.0	4.0	7.0	3.2	3.2	24.7	22.4	22.4	23.5	22.9	22.9
Incr Delay (d2), s/veh	0.4	1.6	1.6	0.6	0.6	0.6	0.2	0.2	0.3	0.1	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.1	2.2	0.2	0.9	0.9	0.4	0.4	0.4	0.3	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.8	5.7	5.6	7.5	3.7	3.7	24.9	22.6	22.7	23.6	23.4	23.5
LnGrp LOS	A	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		1343			720			104			162	
Approach Delay, s/veh		5.6			3.9			23.4			23.5	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.6		48.0		13.6		48.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		28.0		44.0		28.0		44.0				
Max Q Clear Time (g_c+I1), s		6.0		12.6		4.4		14.9				
Green Ext Time (p_c), s		0.4		10.8		0.7		4.8				
Intersection Summary												
HCM 6th Ctrl Delay				7.1								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
10: Arrowhead Ave. & 5th St.

Opening Year + Cumulative Projects + Project AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	72	845	197	56	598	38	53	89	30	25	191	40
Future Volume (veh/h)	72	845	197	56	598	38	53	89	30	25	191	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	81	949	221	63	672	43	60	100	34	28	215	45
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	512	1874	436	336	2222	142	226	462	150	278	516	106
Arrive On Green	0.69	0.69	0.69	0.69	0.69	0.69	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	658	2710	630	429	3213	205	1000	2491	810	1115	2780	571
Grp Volume(v), veh/h	81	589	581	63	352	363	60	66	68	28	129	131
Grp Sat Flow(s),veh/h/ln	658	1683	1657	429	1683	1735	1000	1683	1617	1115	1683	1667
Q Serve(g_s), s	3.6	10.8	10.8	5.3	5.3	5.3	3.7	2.2	2.3	1.4	4.4	4.5
Cycle Q Clear(g_c), s	8.9	10.8	10.8	16.2	5.3	5.3	8.2	2.2	2.3	3.7	4.4	4.5
Prop In Lane	1.00		0.38	1.00		0.12	1.00		0.50	1.00		0.34
Lane Grp Cap(c), veh/h	512	1164	1146	336	1164	1200	226	312	300	278	312	309
V/C Ratio(X)	0.16	0.51	0.51	0.19	0.30	0.30	0.26	0.21	0.23	0.10	0.41	0.43
Avail Cap(c_a), veh/h	512	1164	1146	336	1164	1200	456	698	671	534	698	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.6	4.8	4.8	8.6	3.9	3.9	27.1	22.5	22.5	24.1	23.4	23.4
Incr Delay (d2), s/veh	0.7	1.6	1.6	1.2	0.7	0.7	0.6	0.3	0.4	0.2	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.5	2.5	0.5	1.2	1.2	0.8	0.8	0.8	0.4	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.3	6.3	6.4	9.8	4.6	4.6	27.7	22.8	22.9	24.3	24.2	24.4
LnGrp LOS	A	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		1251			778			194			288	
Approach Delay, s/veh		6.4			5.0			24.3			24.3	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.1		49.0		16.1		49.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		27.0		45.0		27.0		45.0				
Max Q Clear Time (g_c+I1), s		10.2		12.8		6.5		18.2				
Green Ext Time (p_c), s		0.8		10.0		1.4		5.5				
Intersection Summary												
HCM 6th Ctrl Delay				9.4								
HCM 6th LOS				A								

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	13	0	42	8	0	5	23	148	20	9	169	13
Future Vol, veh/h	13	0	42	8	0	5	23	148	20	9	169	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
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	14	0	46	9	0	5	25	161	22	10	184	14

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	342	444	99	334	440	92	198	0	0	183	0	0
Stage 1	211	211	-	222	222	-	-	-	-	-	-	-
Stage 2	131	233	-	112	218	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	588	507	937	596	510	947	1372	-	-	1389	-	-
Stage 1	771	726	-	760	718	-	-	-	-	-	-	-
Stage 2	859	711	-	881	721	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	572	493	937	555	496	947	1372	-	-	1389	-	-
Mov Cap-2 Maneuver	572	493	-	555	496	-	-	-	-	-	-	-
Stage 1	756	720	-	745	704	-	-	-	-	-	-	-
Stage 2	837	697	-	831	715	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.8		10.6		1		0.4	
HCM LOS	A		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1372	-	-	814	660	1389	-
HCM Lane V/C Ratio	0.018	-	-	0.073	0.021	0.007	-
HCM Control Delay (s)	7.7	0.1	-	9.8	10.6	7.6	-
HCM Lane LOS	A	A	-	A	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	
Traffic Vol, veh/h	0	1504	642	24	0	38
Future Vol, veh/h	0	1504	642	24	0	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1635	698	26	0	41

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	724	0	-	0	1529 362
Stage 1	-	-	-	-	711 -
Stage 2	-	-	-	-	818 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	874	-	-	-	108 635
Stage 1	-	-	-	-	448 -
Stage 2	-	-	-	-	394 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	874	-	-	-	108 635
Mov Cap-2 Maneuver	-	-	-	-	240 -
Stage 1	-	-	-	-	448 -
Stage 2	-	-	-	-	394 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	874	-	-	-	635
HCM Lane V/C Ratio	-	-	-	-	0.065
HCM Control Delay (s)	0	-	-	-	11.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	1504	0	0	666	0	0
Future Vol, veh/h	1504	0	0	666	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	20	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1635	0	0	724	0	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1635	0	1997
Stage 1	-	-	-	-	1635
Stage 2	-	-	-	-	362
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	393	-	52
Stage 1	-	-	-	-	144
Stage 2	-	-	-	-	675
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	393	-	52
Mov Cap-2 Maneuver	-	-	-	-	121
Stage 1	-	-	-	-	144
Stage 2	-	-	-	-	675

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	393	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	25	0	7	0	0	0	7	35	0	0	109	12
Future Vol, veh/h	25	0	7	0	0	0	7	35	0	0	109	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
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	27	0	8	0	0	0	8	38	0	0	118	13

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	160	179	66	113	185	19	131	0	-	-	-	0
Stage 1	125	125	-	54	54	-	-	-	-	-	-	-
Stage 2	35	54	-	59	131	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	-	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	-	-	-
Pot Cap-1 Maneuver	790	714	984	853	708	1055	1452	-	0	0	-	-
Stage 1	866	792	-	952	849	-	-	-	0	0	-	-
Stage 2	976	849	-	946	787	-	-	-	0	0	-	-
Platoon blocked, %								-			-	
Mov Cap-1 Maneuver	786	710	984	843	704	1055	1452	-	-	-	-	-
Mov Cap-2 Maneuver	766	695	-	813	687	-	-	-	-	-	-	-
Stage 1	861	792	-	946	844	-	-	-	-	-	-	-
Stage 2	970	844	-	939	787	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	0	1.2	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1WBLn1	SBT	SBR
Capacity (veh/h)	1452	-	805	-	-
HCM Lane V/C Ratio	0.005	-	0.043	-	-
HCM Control Delay (s)	7.5	0	9.7	0	-
HCM Lane LOS	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗				↖		↕	
Traffic Vol, veh/h	35	1486	26	13	628	56	0	0	24	34	0	41
Future Vol, veh/h	35	1486	26	13	628	56	0	0	24	34	0	41
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	30	-	-	30	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	1	-
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	38	1615	28	14	683	61	0	0	26	37	0	45

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	744	0	0	1643	0	0	-	-	822	1626	2461	372
Stage 1	-	-	-	-	-	-	-	-	-	742	742	-
Stage 2	-	-	-	-	-	-	-	-	-	884	1719	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	859	-	-	390	-	-	0	0	317	68	30	625
Stage 1	-	-	-	-	-	-	0	0	-	374	420	-
Stage 2	-	-	-	-	-	-	0	0	-	307	143	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	859	-	-	390	-	-	-	-	317	59	28	625
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	162	95	-
Stage 1	-	-	-	-	-	-	-	-	-	358	405	-
Stage 2	-	-	-	-	-	-	-	-	-	269	137	-





















Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.3			17.4			23.8		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	317	859	-	-	390	-	-	272
HCM Lane V/C Ratio	0.082	0.044	-	-	0.036	-	-	0.3
HCM Control Delay (s)	17.4	9.4	-	-	14.6	-	-	23.8
HCM Lane LOS	C	A	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-	-	1.2

Gateway Downtown San Bernardino
1: Mt. Vernon Ave. & 5th St.

Opening Year + Cumulative Projects + Project PM

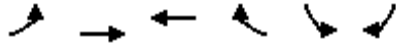
Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	591	111	69	635	168	140	625	100	129	430	93
Future Volume (veh/h)	109	591	111	69	635	168	140	625	100	129	430	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	115	622	117	73	668	177	147	658	105	136	453	98
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	1110	208	90	958	254	298	1098	175	226	1040	223
Arrive On Green	0.09	0.39	0.39	0.06	0.36	0.36	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1594	2818	529	1594	2630	696	765	2901	462	629	2748	590
Grp Volume(v), veh/h	115	371	368	73	427	418	147	381	382	136	276	275
Grp Sat Flow(s),veh/h/ln	1594	1683	1664	1594	1683	1643	765	1683	1679	629	1683	1654
Q Serve(g_s), s	5.0	12.0	12.1	3.2	15.1	15.2	12.4	12.7	12.8	13.7	8.5	8.7
Cycle Q Clear(g_c), s	5.0	12.0	12.1	3.2	15.1	15.2	21.1	12.7	12.8	26.5	8.5	8.7
Prop In Lane	1.00		0.32	1.00		0.42	1.00		0.28	1.00		0.36
Lane Grp Cap(c), veh/h	137	663	655	90	613	599	298	637	636	226	637	626
V/C Ratio(X)	0.84	0.56	0.56	0.81	0.70	0.70	0.49	0.60	0.60	0.60	0.43	0.44
Avail Cap(c_a), veh/h	137	663	655	159	613	599	298	637	636	226	637	626
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	16.5	16.5	32.7	19.0	19.0	24.1	17.5	17.5	28.8	16.2	16.2
Incr Delay (d2), s/veh	35.3	3.4	3.5	16.0	6.4	6.6	1.3	1.5	1.6	4.4	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	4.7	4.6	1.5	6.3	6.1	2.1	4.6	4.6	2.4	3.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.8	19.9	20.0	48.7	25.4	25.6	25.3	19.0	19.1	33.2	16.6	16.7
LnGrp LOS	E	B	B	D	C	C	C	B	B	C	B	B
Approach Vol, veh/h		854			918			910			687	
Approach Delay, s/veh		26.2			27.3			20.1			19.9	
Approach LOS		C			C			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.5	7.9	31.6		30.5	10.0	29.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		26.5	7.0	24.5		26.5	6.0	25.5				
Max Q Clear Time (g_c+I1), s		23.1	5.2	14.1		28.5	7.0	17.2				
Green Ext Time (p_c), s		1.7	0.0	3.2		0.0	0.0	3.2				
Intersection Summary												
HCM 6th Ctrl Delay				23.6								
HCM 6th LOS				C								

Gateway Downtown San Bernardino
2: 5th St. & J St.

Opening Year + Cumulative Projects + Project PM

Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	915	995	119	94	7
Future Volume (veh/h)	12	915	995	119	94	7
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1772	1673	1673
Adj Flow Rate, veh/h	12	924	1005	120	95	7
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	420	2683	2413	288	121	9
Arrive On Green	0.80	0.80	0.80	0.80	0.08	0.08
Sat Flow, veh/h	448	3455	3117	361	1458	107
Grp Volume(v), veh/h	12	924	558	567	103	0
Grp Sat Flow(s),veh/h/ln	448	1683	1683	1707	1581	0
Q Serve(g_s), s	0.6	5.1	6.7	6.7	4.3	0.0
Cycle Q Clear(g_c), s	7.3	5.1	6.7	6.7	4.3	0.0
Prop In Lane	1.00			0.21	0.92	0.07
Lane Grp Cap(c), veh/h	420	2683	1341	1360	131	0
V/C Ratio(X)	0.03	0.34	0.42	0.42	0.79	0.00
Avail Cap(c_a), veh/h	420	2683	1341	1360	689	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	3.2	1.9	2.1	2.1	29.9	0.0
Incr Delay (d2), s/veh	0.1	0.4	1.0	0.9	9.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.7	0.7	1.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.3	2.2	3.0	3.0	39.8	0.0
LnGrp LOS	A	A	A	A	D	A
Approach Vol, veh/h		936	1125		103	
Approach Delay, s/veh		2.3	3.0		39.8	
Approach LOS		A	A		D	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				57.0	9.5	57.0
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				53.0	29.0	53.0
Max Q Clear Time (g_c+I1), s				9.3	6.3	8.7
Green Ext Time (p_c), s				7.7	0.2	8.8
Intersection Summary						
HCM 6th Ctrl Delay			4.4			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

Gateway Downtown San Bernardino
3: I-215 SB Ramps & 5th St.

Opening Year + Cumulative Projects + Project PM

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑		↔↔	↑↑					↔	↔	↔
Traffic Volume (veh/h)	0	658	353	546	926	0	0	0	0	279	5	189
Future Volume (veh/h)	0	658	353	546	926	0	0	0	0	279	5	189
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1772	1772	1575	1772	0				1673	1673	1772
Adj Flow Rate, veh/h	0	671	360	557	945	0				347	0	130
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	2153	707	640	2495	0				432	0	203
Arrive On Green	0.00	0.47	0.47	0.07	0.24	0.00				0.14	0.00	0.14
Sat Flow, veh/h	0	4820	1502	2910	3455	0				3188	0	1498
Grp Volume(v), veh/h	0	671	360	557	945	0				347	0	130
Grp Sat Flow(s),veh/h/ln	0	1524	1502	1455	1683	0				1594	0	1498
Q Serve(g_s), s	0.0	8.2	15.0	17.1	21.0	0.0				9.5	0.0	7.4
Cycle Q Clear(g_c), s	0.0	8.2	15.0	17.1	21.0	0.0				9.5	0.0	7.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2153	707	640	2495	0				432	0	203
V/C Ratio(X)	0.00	0.31	0.51	0.87	0.38	0.00				0.80	0.00	0.64
Avail Cap(c_a), veh/h	0	2153	707	857	2495	0				786	0	370
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.94	0.94	0.85	0.85	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.8	16.6	40.5	16.7	0.0				37.7	0.0	36.8
Incr Delay (d2), s/veh	0.0	0.4	2.5	5.2	0.4	0.0				1.3	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.7	5.2	7.0	9.4	0.0				3.6	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.1	19.0	45.7	17.1	0.0				39.1	0.0	38.1
LnGrp LOS		A	B	D	B	A				D	A	D
Approach Vol, veh/h		1031			1502						477	
Approach Delay, s/veh		16.5			27.7						38.8	
Approach LOS		B			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	24.3	47.7		18.0		72.0						
Change Period (Y+Rc), s	4.5	5.3		5.8		5.3						
Max Green Setting (Gmax), s	26.5	25.7		22.2		56.7						
Max Q Clear Time (g_c+119, s)	17.0	17.0		11.5		23.0						
Green Ext Time (p_c), s	0.8	3.1		0.7		4.6						

Intersection Summary

HCM 6th Ctrl Delay	25.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

Opening Year + Cumulative Projects + Project PM

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑	↔	↔	↔	↔			
Traffic Volume (veh/h)	225	713	0	0	1074	738	398	2	481	0	0	0
Future Volume (veh/h)	225	713	0	0	1074	738	398	2	481	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1575	1772	0	0	1772	1772	1673	1673	1772			
Adj Flow Rate, veh/h	232	735	0	0	1107	761	578	0	317			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	259	2138	0	0	2990	733	770	0	360			
Arrive On Green	0.18	1.00	0.00	0.00	0.49	0.49	0.24	0.00	0.24			
Sat Flow, veh/h	2910	3455	0	0	6343	1494	3188	0	1489			
Grp Volume(v), veh/h	232	735	0	0	1107	761	578	0	317			
Grp Sat Flow(s),veh/h/ln	1455	1683	0	0	1524	1494	1594	0	1489			
Q Serve(g_s), s	7.0	0.0	0.0	0.0	10.2	44.2	15.1	0.0	18.5			
Cycle Q Clear(g_c), s	7.0	0.0	0.0	0.0	10.2	44.2	15.1	0.0	18.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	259	2138	0	0	2990	733	770	0	360			
V/C Ratio(X)	0.90	0.34	0.00	0.00	0.37	1.04	0.75	0.00	0.88			
Avail Cap(c_a), veh/h	259	2138	0	0	2990	733	999	0	466			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.89	0.89	0.00	0.00	0.33	0.33	1.00	0.00	1.00			
Uniform Delay (d), s/veh	36.6	0.0	0.0	0.0	14.3	22.9	31.6	0.0	32.9			
Incr Delay (d2), s/veh	27.4	0.4	0.0	0.0	0.1	29.8	1.6	0.0	12.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.2	0.1	0.0	0.0	3.2	19.6	5.7	0.0	7.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.0	0.4	0.0	0.0	14.4	52.8	33.2	0.0	45.3			
LnGrp LOS	E	A	A	A	B	F	C	A	D			
Approach Vol, veh/h		967			1868			895				
Approach Delay, s/veh		15.7			30.0			37.5				
Approach LOS		B			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		62.5			13.0	49.5		27.5				
Change Period (Y+Rc), s		5.3			5.0	5.3		5.8				
Max Green Setting (Gmax), s		50.7			8.0	37.7		28.2				
Max Q Clear Time (g_c+I1), s		2.0			9.0	46.2		20.5				
Green Ext Time (p_c), s		3.4			0.0	0.0		1.3				

Intersection Summary

HCM 6th Ctrl Delay	28.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
5: H St. & 5th St.

Opening Year + Cumulative Projects + Project PM

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	871	90	7	1221	50	228	190	42	26	90	363
Future Volume (veh/h)	234	871	90	7	1221	50	228	190	42	26	90	363
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	244	907	94	7	1272	52	238	198	44	27	94	378
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	191	1619	815	14	1220	50	388	773	168	393	911	579
Arrive On Green	0.12	0.48	0.48	0.01	0.37	0.37	0.07	0.28	0.28	0.05	0.27	0.27
Sat Flow, veh/h	1594	3367	1491	1594	3296	135	1594	2747	597	1594	3367	1474
Grp Volume(v), veh/h	244	907	94	7	649	675	238	120	122	27	94	378
Grp Sat Flow(s),veh/h/ln	1594	1683	1491	1594	1683	1747	1594	1683	1661	1594	1683	1474
Q Serve(g_s), s	11.0	17.6	2.8	0.4	34.0	34.0	6.0	5.0	5.2	1.1	1.9	19.3
Cycle Q Clear(g_c), s	11.0	17.6	2.8	0.4	34.0	34.0	6.0	5.0	5.2	1.1	1.9	19.3
Prop In Lane	1.00		1.00	1.00		0.08	1.00		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	191	1619	815	14	623	647	388	474	468	393	911	579
V/C Ratio(X)	1.28	0.56	0.12	0.49	1.04	1.04	0.61	0.25	0.26	0.07	0.10	0.65
Avail Cap(c_a), veh/h	191	1619	815	104	623	647	388	696	687	410	1393	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	16.9	10.1	45.3	28.9	28.9	25.5	25.5	25.6	21.4	25.1	23.0
Incr Delay (d2), s/veh	159.4	1.4	0.3	24.1	47.4	47.3	2.9	0.3	0.3	0.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	6.5	0.9	0.2	20.8	21.6	1.9	2.0	2.0	0.4	0.7	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	199.8	18.3	10.4	69.4	76.3	76.2	28.4	25.8	25.9	21.5	25.2	24.2
LnGrp LOS	F	B	B	E	F	F	C	C	C	C	C	C
Approach Vol, veh/h		1245			1331			480			499	
Approach Delay, s/veh		53.3			76.2			27.1			24.2	
Approach LOS		D			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	29.9	4.8	48.2	10.0	28.9	15.0	38.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	38.0	38.0	6.0	39.0	6.0	38.0	11.0	34.0				
Max Q Clear Time (g_c+1/3), s	7.2	7.2	2.4	19.6	8.0	21.3	13.0	36.0				
Green Ext Time (p_c), s	0.0	1.3	0.0	6.3	0.0	1.7	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay											54.3	
HCM 6th LOS											D	

Gateway Downtown San Bernardino
6: G St. & 5th St.

Opening Year + Cumulative Projects + Project PM

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	782	23	19	1198	142	30	117	23	114	112	99
Future Volume (veh/h)	101	782	23	19	1198	142	30	117	23	114	112	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1673	1772	1673	1673	1772
Adj Flow Rate, veh/h	103	798	23	19	1222	145	31	119	23	116	114	101
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	252	2274	66	433	2063	244	120	407	82	217	198	190
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	356	3341	96	595	3031	358	271	1834	369	647	894	858
Grp Volume(v), veh/h	103	402	419	19	677	690	83	0	90	171	0	160
Grp Sat Flow(s),veh/h/ln	356	1683	1754	595	1683	1706	1026	0	1448	1043	0	1355
Q Serve(g_s), s	18.0	8.2	8.2	1.1	17.7	17.8	0.4	0.0	4.2	9.4	0.0	8.5
Cycle Q Clear(g_c), s	35.8	8.2	8.2	9.4	17.7	17.8	8.9	0.0	4.2	13.7	0.0	8.5
Prop In Lane	1.00		0.05	1.00		0.21	0.37		0.26	0.68		0.63
Lane Grp Cap(c), veh/h	252	1146	1194	433	1146	1161	288	0	321	305	0	301
V/C Ratio(X)	0.41	0.35	0.35	0.04	0.59	0.59	0.29	0.00	0.28	0.56	0.00	0.53
Avail Cap(c_a), veh/h	252	1146	1194	433	1146	1161	416	0	458	422	0	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.6	5.5	5.5	7.5	7.0	7.0	26.4	0.0	26.5	31.3	0.0	28.2
Incr Delay (d2), s/veh	4.8	0.8	0.8	0.2	2.2	2.2	0.5	0.0	0.5	1.6	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.4	2.4	0.1	5.2	5.3	1.3	0.0	1.4	3.2	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.5	6.4	6.3	7.7	9.3	9.3	27.0	0.0	27.0	32.9	0.0	29.7
LnGrp LOS	C	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		924			1386			173			331	
Approach Delay, s/veh		8.0			9.2			27.0			31.3	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.3		60.0		22.3		60.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		56.0		26.0		56.0				
Max Q Clear Time (g_c+I1), s		10.9		37.8		15.7		19.8				
Green Ext Time (p_c), s		0.7		6.5		1.3		12.0				
Intersection Summary												
HCM 6th Ctrl Delay											12.5	
HCM 6th LOS											B	

Gateway Downtown San Bernardino
7: F St. & 5th St.

Opening Year + Cumulative Projects + Project PM

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	804	36	17	1225	24	29	40	31	17	56	75
Future Volume (veh/h)	68	804	36	17	1225	24	29	40	31	17	56	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1673	1772	1673	1673	1772
Adj Flow Rate, veh/h	70	829	37	18	1263	25	30	41	32	18	58	77
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	2506	112	487	2578	51	129	137	110	86	179	163
Arrive On Green	0.76	0.76	0.76	0.76	0.76	0.76	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	384	3282	146	572	3376	67	414	1059	855	201	1385	1258
Grp Volume(v), veh/h	70	425	441	18	629	659	53	0	50	76	0	77
Grp Sat Flow(s),veh/h/ln	384	1683	1745	572	1683	1760	992	0	1336	1587	0	1258
Q Serve(g_s), s	6.3	6.0	6.0	0.8	10.5	10.6	0.9	0.0	2.5	0.0	0.0	4.2
Cycle Q Clear(g_c), s	16.8	6.0	6.0	6.7	10.5	10.6	5.2	0.0	2.5	3.1	0.0	4.2
Prop In Lane	1.00		0.08	1.00		0.04	0.57		0.64	0.24		1.00
Lane Grp Cap(c), veh/h	335	1285	1333	487	1285	1344	204	0	173	265	0	163
V/C Ratio(X)	0.21	0.33	0.33	0.04	0.49	0.49	0.26	0.00	0.29	0.29	0.00	0.47
Avail Cap(c_a), veh/h	335	1285	1333	487	1285	1344	472	0	447	577	0	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.5	2.8	2.8	3.9	3.3	3.3	30.0	0.0	29.4	29.6	0.0	30.1
Incr Delay (d2), s/veh	1.4	0.7	0.7	0.1	1.3	1.3	0.7	0.0	0.9	0.6	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln0.5		1.1	1.2	0.1	2.1	2.1	0.9	0.0	0.8	1.2	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.9	3.5	3.5	4.0	4.7	4.6	30.7	0.0	30.3	30.2	0.0	32.3
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		936			1306			103			153	
Approach Delay, s/veh		3.8			4.6			30.5			31.3	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.6		61.0		13.6		61.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		25.0		57.0		25.0		57.0				
Max Q Clear Time (g_c+I1), s		7.2		18.8		6.2		12.6				
Green Ext Time (p_c), s		0.4		7.6		0.7		11.2				
Intersection Summary												
HCM 6th Ctrl Delay				7.0								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
8: E St. & 5th St.

Opening Year + Cumulative Projects + Project PM

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	758	54	38	1127	18	89	315	30	35	193	58
Future Volume (veh/h)	41	758	54	38	1127	18	89	315	30	35	193	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	42	781	56	39	1162	19	92	325	31	36	199	60
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	225	1689	121	326	1800	29	138	414	39	57	273	82
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.09	0.26	0.26	0.04	0.21	0.21
Sat Flow, veh/h	424	3180	228	587	3389	55	1594	1589	152	1594	1301	392
Grp Volume(v), veh/h	42	413	424	39	577	604	92	0	356	36	0	259
Grp Sat Flow(s),veh/h/ln	424	1683	1724	587	1683	1761	1594	0	1741	1594	0	1693
Q Serve(g_s), s	5.5	10.6	10.6	3.1	17.0	17.0	3.9	0.0	13.2	1.6	0.0	9.9
Cycle Q Clear(g_c), s	22.5	10.6	10.6	13.7	17.0	17.0	3.9	0.0	13.2	1.6	0.0	9.9
Prop In Lane	1.00		0.13	1.00		0.03	1.00		0.09	1.00		0.23
Lane Grp Cap(c), veh/h	225	894	916	326	894	935	138	0	454	57	0	356
V/C Ratio(X)	0.19	0.46	0.46	0.12	0.65	0.65	0.67	0.00	0.78	0.63	0.00	0.73
Avail Cap(c_a), veh/h	225	894	916	326	894	935	160	0	875	137	0	826
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.7	10.1	10.1	14.4	11.6	11.7	30.9	0.0	23.9	33.1	0.0	25.7
Incr Delay (d2), s/veh	1.8	1.7	1.7	0.8	3.6	3.4	8.3	0.0	3.0	10.7	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.6	3.6	0.4	5.9	6.2	1.7	0.0	5.3	0.7	0.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.5	11.9	11.8	15.2	15.2	15.1	39.1	0.0	27.0	43.8	0.0	28.5
LnGrp LOS	C	B	B	B	B	B	D	A	C	D	A	C
Approach Vol, veh/h		879			1220			448			295	
Approach Delay, s/veh		12.3			15.2			29.5			30.4	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.5	22.2		41.0	10.0	18.6		41.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	6.0	35.0		37.0	7.0	34.0		37.0				
Max Q Clear Time (g_c+1), s	13.6	15.2		24.5	5.9	11.9		19.0				
Green Ext Time (p_c), s	0.0	1.9		4.5	0.0	1.4		7.5				

Intersection Summary

HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Gateway Downtown San Bernardino
9: D St. & 5th St.

Opening Year + Cumulative Projects + Project PM

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	708	55	33	932	39	130	163	24	40	118	97
Future Volume (veh/h)	76	708	55	33	932	39	130	163	24	40	118	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	82	761	59	35	1002	42	140	175	26	43	127	104
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	332	2061	160	413	2146	90	280	728	106	299	450	337
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	483	3163	245	595	3292	138	1023	2936	428	1047	1815	1360
Grp Volume(v), veh/h	82	405	415	35	512	532	140	99	102	43	117	114
Grp Sat Flow(s),veh/h/ln	483	1683	1725	595	1683	1747	1023	1683	1681	1047	1683	1492
Q Serve(g_s), s	8.2	8.8	8.8	2.3	12.2	12.2	10.3	3.7	3.9	2.7	4.5	5.0
Cycle Q Clear(g_c), s	20.3	8.8	8.8	11.1	12.2	12.2	15.3	3.7	3.9	6.6	4.5	5.0
Prop In Lane	1.00		0.14	1.00		0.08	1.00		0.25	1.00		0.91
Lane Grp Cap(c), veh/h	332	1097	1124	413	1097	1138	280	417	417	299	417	370
V/C Ratio(X)	0.25	0.37	0.37	0.08	0.47	0.47	0.50	0.24	0.24	0.14	0.28	0.31
Avail Cap(c_a), veh/h	332	1097	1124	413	1097	1138	411	633	632	433	633	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.0	6.4	6.4	8.9	7.0	7.0	30.6	24.0	24.0	26.7	24.2	24.4
Incr Delay (d2), s/veh	1.8	1.0	0.9	0.4	1.4	1.4	1.4	0.3	0.3	0.2	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.6	2.7	0.3	3.7	3.8	2.5	1.4	1.5	0.7	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.8	7.3	7.3	9.3	8.4	8.3	32.0	24.3	24.3	26.9	24.6	24.9
LnGrp LOS	B	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		902			1079			341			274	
Approach Delay, s/veh		7.9			8.4			27.5			25.1	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.8		56.0		23.8		56.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		30.0		52.0		30.0		52.0				
Max Q Clear Time (g_c+I1), s		17.3		22.3		8.6		14.2				
Green Ext Time (p_c), s		1.3		6.7		1.4		8.2				
Intersection Summary												
HCM 6th Ctrl Delay				12.5								
HCM 6th LOS				B								

Gateway Downtown San Bernardino
10: Arrowhead Ave. & 5th St.

Opening Year + Cumulative Projects + Project PM

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	696	53	38	803	38	113	330	92	26	156	63
Future Volume (veh/h)	62	696	53	38	803	38	113	330	92	26	156	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1673	1772	1772	1673	1772	1772	1673	1772	1772	1673	1772	1772
Adj Flow Rate, veh/h	66	740	56	40	854	40	120	351	98	28	166	67
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	382	2023	153	420	2090	98	296	656	180	210	597	230
Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	557	3169	240	610	3274	153	1021	2592	712	839	2358	910
Grp Volume(v), veh/h	66	393	403	40	439	455	120	226	223	28	116	117
Grp Sat Flow(s),veh/h/ln	557	1683	1725	610	1683	1744	1021	1683	1621	839	1683	1585
Q Serve(g_s), s	4.8	8.1	8.1	2.4	9.4	9.4	7.9	8.5	8.8	2.2	4.1	4.4
Cycle Q Clear(g_c), s	14.2	8.1	8.1	10.6	9.4	9.4	12.3	8.5	8.8	11.0	4.1	4.4
Prop In Lane	1.00		0.14	1.00		0.09	1.00		0.44	1.00		0.57
Lane Grp Cap(c), veh/h	382	1075	1101	420	1075	1113	296	426	410	210	426	401
V/C Ratio(X)	0.17	0.37	0.37	0.10	0.41	0.41	0.41	0.53	0.54	0.13	0.27	0.29
Avail Cap(c_a), veh/h	382	1075	1101	420	1075	1113	523	800	771	396	800	753
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.0	6.3	6.3	8.8	6.5	6.5	27.1	23.7	23.8	28.6	22.1	22.2
Incr Delay (d2), s/veh	1.0	1.0	0.9	0.5	1.2	1.1	0.9	1.0	1.1	0.3	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.4	2.4	0.3	2.7	2.8	1.9	3.2	3.2	0.4	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.0	7.2	7.2	9.2	7.7	7.6	28.0	24.8	24.9	28.9	22.4	22.6
LnGrp LOS	B	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		862			934			569			261	
Approach Delay, s/veh		7.5			7.7			25.5			23.2	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.6		51.0		22.6		51.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		35.0		47.0		35.0		47.0				
Max Q Clear Time (g_c+I1), s		14.3		16.2		13.0		12.6				
Green Ext Time (p_c), s		3.0		6.0		1.4		6.6				
Intersection Summary												
HCM 6th Ctrl Delay				13.0								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	16	0	43	2	0	2	23	330	14	8	302	13
Future Vol, veh/h	16	0	43	2	0	2	23	330	14	8	302	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
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	17	0	47	2	0	2	25	359	15	9	328	14

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	583	777	171	599	777	187	342	0	0	374	0	0
Stage 1	353	353	-	417	417	-	-	-	-	-	-	-
Stage 2	230	424	-	182	360	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	396	327	843	385	327	823	1214	-	-	1181	-	-
Stage 1	637	629	-	584	590	-	-	-	-	-	-	-
Stage 2	752	585	-	802	625	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	385	316	843	354	316	823	1214	-	-	1181	-	-
Mov Cap-2 Maneuver	385	316	-	354	316	-	-	-	-	-	-	-
Stage 1	620	623	-	569	575	-	-	-	-	-	-	-
Stage 2	731	570	-	751	619	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.3		12.3		0.6		0.2	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1214	-	-	637	495	1181	-	-
HCM Lane V/C Ratio	0.021	-	-	0.101	0.009	0.007	-	-
HCM Control Delay (s)	8	0.1	-	11.3	12.3	8.1	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0	0	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	
Traffic Vol, veh/h	0	919	1326	18	0	28
Future Vol, veh/h	0	919	1326	18	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	999	1441	20	0	30

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1461	0	-	0	1951 731
Stage 1	-	-	-	-	1451 -
Stage 2	-	-	-	-	500 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	458	-	-	-	56 364
Stage 1	-	-	-	-	182 -
Stage 2	-	-	-	-	575 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	458	-	-	-	56 364
Mov Cap-2 Maneuver	-	-	-	-	144 -
Stage 1	-	-	-	-	182 -
Stage 2	-	-	-	-	575 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	458	-	-	-	364
HCM Lane V/C Ratio	-	-	-	-	0.084
HCM Control Delay (s)	0	-	-	-	15.8
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	906	13	12	1338	6	6
Future Vol, veh/h	906	13	12	1338	6	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	30	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	985	14	13	1454	7	7

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	999	0	1745
Stage 1	-	-	-	-	992
Stage 2	-	-	-	-	753
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	689	-	77
Stage 1	-	-	-	-	320
Stage 2	-	-	-	-	426
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	689	-	76
Mov Cap-2 Maneuver	-	-	-	-	199
Stage 1	-	-	-	-	320
Stage 2	-	-	-	-	418

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	18.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	287	-	-	689	-
HCM Lane V/C Ratio	0.045	-	-	0.019	-
HCM Control Delay (s)	18.1	-	-	10.3	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	0	7	4	0	10	7	142	0	0	145	10
Future Vol, veh/h	20	0	7	4	0	10	7	142	0	0	145	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
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	22	0	8	4	0	11	8	154	0	0	158	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	257	334	85	249	339	77	169	0	-	-	-	0
Stage 1	164	164	-	170	170	-	-	-	-	-	-	-
Stage 2	93	170	-	79	169	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	-	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	-	-	-
Pot Cap-1 Maneuver	675	585	957	684	581	968	1406	-	0	0	-	-
Stage 1	822	761	-	815	757	-	-	-	0	0	-	-
Stage 2	904	757	-	921	758	-	-	-	0	0	-	-
Platoon blocked, %								-			-	
Mov Cap-1 Maneuver	664	581	957	676	578	968	1406	-	-	-	-	-
Mov Cap-2 Maneuver	689	610	-	694	607	-	-	-	-	-	-	-
Stage 1	817	761	-	810	752	-	-	-	-	-	-	-
Stage 2	888	752	-	914	758	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB			
HCM Control Delay, s	10		9.2		0.4		0			
HCM LOS	B		A							

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	1406	-	743	870	-	-
HCM Lane V/C Ratio	0.005	-	0.039	0.017	-	-
HCM Control Delay (s)	7.6	0	10	9.2	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0.1	-	-

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕↗		↖	↕↗				↖		↕↗	
Traffic Vol, veh/h	33	807	89	28	1281	54	0	0	41	30	0	38
Future Vol, veh/h	33	807	89	28	1281	54	0	0	41	30	0	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	30	-	-	30	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	1	-
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	36	877	97	30	1392	59	0	0	45	33	0	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1451	0	0	974	0	0	-	-	487	1993	2528	726
Stage 1	-	-	-	-	-	-	-	-	-	1482	1482	-
Stage 2	-	-	-	-	-	-	-	-	-	511	1046	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	463	-	-	704	-	-	0	0	526	36	27	367
Stage 1	-	-	-	-	-	-	0	0	-	131	187	-
Stage 2	-	-	-	-	-	-	0	0	-	514	304	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	463	-	-	704	-	-	-	-	526	~ 30	24	367
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	94	106	-
Stage 1	-	-	-	-	-	-	-	-	-	121	179	-
Stage 2	-	-	-	-	-	-	-	-	-	434	280	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.2			12.5			45.1		
HCM LOS							B			E		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	526	463	-	-	704	-	-	161
HCM Lane V/C Ratio	0.085	0.077	-	-	0.043	-	-	0.459
HCM Control Delay (s)	12.5	13.4	-	-	10.3	-	-	45.1
HCM Lane LOS	B	B	-	-	B	-	-	E
HCM 95th %tile Q(veh)	0.3	0.3	-	-	0.1	-	-	2.1

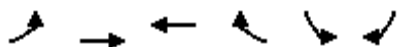
Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Gateway Downtown San Bernardino
1: Mt. Vernon Ave. & 5th St.

Horizon Year 2040 AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	561	139	65	490	91	73	328	49	138	524	69
Future Volume (veh/h)	71	561	139	65	490	91	73	328	49	138	524	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	75	591	146	68	516	96	77	345	52	145	552	73
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	1197	295	95	1262	234	252	992	148	338	1010	133
Arrive On Green	0.06	0.42	0.42	0.06	0.42	0.42	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1688	2817	694	1688	2990	554	756	3098	463	933	3153	416
Grp Volume(v), veh/h	75	372	365	68	306	306	77	196	201	145	310	315
Grp Sat Flow(s),veh/h/ln	1688	1777	1734	1688	1777	1767	756	1777	1784	933	1777	1792
Q Serve(g_s), s	2.6	9.2	9.3	2.4	7.3	7.3	5.6	5.1	5.2	8.5	8.7	8.7
Cycle Q Clear(g_c), s	2.6	9.2	9.3	2.4	7.3	7.3	14.4	5.1	5.2	13.7	8.7	8.7
Prop In Lane	1.00		0.40	1.00		0.31	1.00		0.26	1.00		0.23
Lane Grp Cap(c), veh/h	100	755	737	95	750	746	252	569	571	338	569	574
V/C Ratio(X)	0.75	0.49	0.50	0.72	0.41	0.41	0.31	0.35	0.35	0.43	0.55	0.55
Avail Cap(c_a), veh/h	195	755	737	195	750	746	329	750	753	432	750	756
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	12.6	12.7	28.0	12.2	12.2	22.9	15.7	15.7	21.0	16.9	16.9
Incr Delay (d2), s/veh	10.7	2.3	2.4	9.6	1.6	1.7	0.7	0.4	0.4	0.9	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.4	3.4	1.1	2.7	2.7	0.9	1.8	1.9	1.7	3.2	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.7	14.9	15.0	37.6	13.8	13.9	23.5	16.1	16.1	21.8	17.7	17.8
LnGrp LOS	D	B	B	D	B	B	C	B	B	C	B	B
Approach Vol, veh/h		812			680			474			770	
Approach Delay, s/veh		17.2			16.2			17.3			18.5	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.4	7.4	29.7		23.4	7.6	29.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		25.5	7.0	25.5		25.5	7.0	25.5				
Max Q Clear Time (g_c+I1), s		16.4	4.4	11.3		15.7	4.6	9.3				
Green Ext Time (p_c), s		1.8	0.0	3.7		3.1	0.0	3.2				
Intersection Summary												
HCM 6th Ctrl Delay			17.3									
HCM 6th LOS			B									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	845	674	51	132	21
Future Volume (veh/h)	8	845	674	51	132	21
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1870	1772	1772
Adj Flow Rate, veh/h	8	889	709	54	139	22
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	567	2585	2434	185	181	29
Arrive On Green	0.73	0.73	0.73	0.73	0.13	0.13
Sat Flow, veh/h	666	3647	3440	255	1421	225
Grp Volume(v), veh/h	8	889	376	387	162	0
Grp Sat Flow(s),veh/h/ln	666	1777	1777	1824	1657	0
Q Serve(g_s), s	0.2	5.0	4.0	4.0	5.2	0.0
Cycle Q Clear(g_c), s	4.3	5.0	4.0	4.0	5.2	0.0
Prop In Lane	1.00			0.14	0.86	0.14
Lane Grp Cap(c), veh/h	567	2585	1293	1327	210	0
V/C Ratio(X)	0.01	0.34	0.29	0.29	0.77	0.00
Avail Cap(c_a), veh/h	567	2585	1293	1327	964	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	3.3	2.7	2.6	2.6	23.2	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.6	0.6	5.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.6	0.6	0.6	2.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.4	3.1	3.2	3.1	29.1	0.0
LnGrp LOS	A	A	A	A	C	A
Approach Vol, veh/h		897	763		162	
Approach Delay, s/veh		3.1	3.2		29.1	
Approach LOS		A	A		C	
Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			44.0		11.0	44.0
Change Period (Y+Rc), s			4.0		4.0	4.0
Max Green Setting (Gmax), s			40.0		32.0	40.0
Max Q Clear Time (g_c+I1), s			7.0		7.2	6.0
Green Ext Time (p_c), s			6.9		0.4	4.9
Intersection Summary						
HCM 6th Ctrl Delay			5.4			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

Gateway Downtown San Bernardino
3: I-215 SB Ramps & 5th St.

Horizon Year 2040 AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑		↔↔	↑↑					↔	↔	↔
Traffic Volume (veh/h)	0	579	397	387	531	0	0	0	0	764	13	185
Future Volume (veh/h)	0	579	397	387	531	0	0	0	0	764	13	185
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1673	1870	0				1772	1772	1870
Adj Flow Rate, veh/h	0	609	418	407	559	0				870	0	135
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1728	568	480	2024	0				984	0	462
Arrive On Green	0.00	0.36	0.36	0.21	0.76	0.00				0.29	0.00	0.29
Sat Flow, veh/h	0	5087	1585	3092	3647	0				3375	0	1585
Grp Volume(v), veh/h	0	609	418	407	559	0				870	0	135
Grp Sat Flow(s),veh/h/ln	0	1609	1585	1546	1777	0				1688	0	1585
Q Serve(g_s), s	0.0	7.4	18.4	10.1	3.9	0.0				19.7	0.0	5.3
Cycle Q Clear(g_c), s	0.0	7.4	18.4	10.1	3.9	0.0				19.7	0.0	5.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1728	568	480	2024	0				984	0	462
V/C Ratio(X)	0.00	0.35	0.74	0.85	0.28	0.00				0.88	0.00	0.29
Avail Cap(c_a), veh/h	0	1728	568	599	2024	0				1316	0	618
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.93	0.93	0.96	0.96	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.9	22.4	30.8	4.6	0.0				27.0	0.0	21.9
Incr Delay (d2), s/veh	0.0	0.5	7.7	7.4	0.3	0.0				4.8	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.6	7.4	3.9	1.2	0.0				7.9	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.4	30.1	38.2	5.0	0.0				31.9	0.0	22.1
LnGrp LOS		A	B	C	D	A	A			C	A	C
Approach Vol, veh/h		1027			966					1005		
Approach Delay, s/veh		23.8			19.0					30.5		
Approach LOS		C			B					C		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	6.9	33.9	29.1		50.9							
Change Period (Y+Rc), s	4.5	5.3	5.8		5.3							
Max Green Setting (Gmax), s	5.5	17.7	31.2		37.7							
Max Q Clear Time (g_c+1/2I), s	11.2	20.4	21.7		5.9							
Green Ext Time (p_c), s	0.3	0.0	1.6		2.4							

Intersection Summary

HCM 6th Ctrl Delay	24.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

Horizon Year 2040 AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑	↔	↔	↔	↔			
Traffic Volume (veh/h)	166	1182	0	0	646	219	254	2	703	0	0	0
Future Volume (veh/h)	166	1182	0	0	646	219	254	2	703	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1673	1870	0	0	1870	1870	1772	1772	1870			
Adj Flow Rate, veh/h	175	1244	0	0	680	231	179	0	836			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	246	2008	0	0	2721	662	500	0	931			
Arrive On Green	0.03	0.19	0.00	0.00	0.42	0.42	0.30	0.00	0.30			
Sat Flow, veh/h	3092	3647	0	0	6696	1564	1688	0	3143			
Grp Volume(v), veh/h	175	1244	0	0	680	231	179	0	836			
Grp Sat Flow(s),veh/h/ln	1546	1777	0	0	1609	1564	1688	0	1572			
Q Serve(g_s), s	4.5	25.8	0.0	0.0	5.5	8.0	6.7	0.0	20.4			
Cycle Q Clear(g_c), s	4.5	25.8	0.0	0.0	5.5	8.0	6.7	0.0	20.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	246	2008	0	0	2721	662	500	0	931			
V/C Ratio(X)	0.71	0.62	0.00	0.00	0.25	0.35	0.36	0.00	0.90			
Avail Cap(c_a), veh/h	271	2008	0	0	2721	662	574	0	1069			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.77	0.77	0.00	0.00	0.93	0.93	1.00	0.00	1.00			
Uniform Delay (d), s/veh	38.0	24.6	0.0	0.0	14.9	15.6	22.2	0.0	27.0			
Incr Delay (d2), s/veh	4.7	1.1	0.0	0.0	0.2	1.4	0.2	0.0	8.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.8	12.2	0.0	0.0	1.8	2.8	2.5	0.0	8.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	25.7	0.0	0.0	15.1	17.0	22.3	0.0	35.6			
LnGrp LOS	D	C	A	A	B	B	C	A	D			
Approach Vol, veh/h		1419			911			1015				
Approach Delay, s/veh		27.8			15.6			33.3				
Approach LOS		C			B			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		50.5			11.4	39.1		29.5				
Change Period (Y+Rc), s		5.3			5.0	5.3		5.8				
Max Green Setting (Gmax), s		41.7			7.0	29.7		27.2				
Max Q Clear Time (g_c+I1), s		27.8			6.5	10.0		22.4				
Green Ext Time (p_c), s		5.1			0.0	3.2		1.3				

Intersection Summary

HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
5: H St. & 5th St.

Horizon Year 2040 AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	1601	144	2	621	23	64	79	9	33	119	191
Future Volume (veh/h)	135	1601	144	2	621	23	64	79	9	33	119	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	142	1685	152	2	654	24	67	83	9	35	125	201
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	176	2089	1024	5	1700	62	314	510	54	354	562	416
Arrive On Green	0.10	0.59	0.59	0.00	0.49	0.49	0.06	0.16	0.16	0.06	0.16	0.16
Sat Flow, veh/h	1688	3554	1582	1688	3496	128	1688	3237	346	1688	3554	1585
Grp Volume(v), veh/h	142	1685	152	2	332	346	67	45	47	35	125	201
Grp Sat Flow(s),veh/h/ln	1688	1777	1582	1688	1777	1847	1688	1777	1806	1688	1777	1585
Q Serve(g_s), s	6.9	31.0	3.1	0.1	9.8	9.9	2.7	1.8	1.9	1.4	2.6	8.9
Cycle Q Clear(g_c), s	6.9	31.0	3.1	0.1	9.8	9.9	2.7	1.8	1.9	1.4	2.6	8.9
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	176	2089	1024	5	864	898	314	280	285	354	562	416
V/C Ratio(X)	0.81	0.81	0.15	0.44	0.38	0.38	0.21	0.16	0.17	0.10	0.22	0.48
Avail Cap(c_a), veh/h	304	2089	1024	121	864	898	335	810	823	374	1620	888
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	13.5	5.7	41.5	13.5	13.5	26.7	30.3	30.4	26.1	30.6	26.0
Incr Delay (d2), s/veh	8.5	3.5	0.3	54.2	1.3	1.2	0.3	0.3	0.3	0.1	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	10.9	0.9	0.1	3.8	4.0	1.1	0.8	0.8	0.5	1.1	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	16.9	6.1	95.7	14.8	14.8	27.0	30.6	30.6	26.2	30.8	26.8
LnGrp LOS	D	B	A	F	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1979			680			159			361	
Approach Delay, s/veh		18.1			15.0			29.1			28.1	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	17.1	4.2	53.0	8.9	17.2	12.7	44.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	38.0	6.0	49.0	6.0	38.0	15.0	40.0				
Max Q Clear Time (g_c+1), s	13.4	3.9	2.1	33.0	4.7	10.9	8.9	11.9				
Green Ext Time (p_c), s	0.0	0.4	0.0	11.0	0.0	1.4	0.2	4.1				
Intersection Summary												
HCM 6th Ctrl Delay											19.1	
HCM 6th LOS											B	

Gateway Downtown San Bernardino
6: G St. & 5th St.

Horizon Year 2040 AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	1441	74	12	586	52	16	33	3	73	132	68
Future Volume (veh/h)	91	1441	74	12	586	52	16	33	3	73	132	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1772	1870	1772	1772	1870
Adj Flow Rate, veh/h	96	1517	78	13	617	55	17	35	3	77	139	72
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	583	2461	126	260	2361	210	157	292	26	183	249	131
Arrive On Green	0.72	0.72	0.72	0.72	0.72	0.72	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	725	3438	176	302	3299	294	408	1822	165	627	1555	817
Grp Volume(v), veh/h	96	781	814	13	332	340	26	0	29	159	0	129
Grp Sat Flow(s),veh/h/ln	725	1777	1838	302	1777	1816	816	0	1579	1537	0	1462
Q Serve(g_s), s	3.4	14.4	14.6	1.5	4.2	4.2	0.1	0.0	1.0	4.7	0.0	5.2
Cycle Q Clear(g_c), s	7.7	14.4	14.6	16.1	4.2	4.2	5.3	0.0	1.0	6.1	0.0	5.2
Prop In Lane	1.00		0.10	1.00		0.16	0.65		0.10	0.48		0.56
Lane Grp Cap(c), veh/h	583	1272	1315	260	1272	1300	223	0	253	329	0	234
V/C Ratio(X)	0.16	0.61	0.62	0.05	0.26	0.26	0.12	0.00	0.11	0.48	0.00	0.55
Avail Cap(c_a), veh/h	583	1272	1315	260	1272	1300	528	0	631	688	0	584
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.6	4.7	4.7	8.8	3.2	3.2	23.2	0.0	23.2	25.2	0.0	25.0
Incr Delay (d2), s/veh	0.6	2.2	2.2	0.4	0.5	0.5	0.2	0.0	0.2	1.1	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.2	3.4	0.1	0.9	0.9	0.3	0.0	0.4	2.2	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.2	6.9	6.9	9.1	3.7	3.7	23.5	0.0	23.4	26.3	0.0	27.0
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1691			685			55			288	
Approach Delay, s/veh		6.8			3.8			23.4			26.6	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		14.3		50.2		14.3		50.2				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		25.8		46.2		25.8		46.2				
Max Q Clear Time (g_c+I1), s		7.3		16.6		8.1		18.1				
Green Ext Time (p_c), s		0.2		14.8		1.4		4.4				
Intersection Summary												
HCM 6th Ctrl Delay				8.5								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
7: F St. & 5th St.

Horizon Year 2040 AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	181	1412	17	14	604	70	6	48	9	34	139	70
Future Volume (veh/h)	181	1412	17	14	604	70	6	48	9	34	139	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1772	1870	1772	1772	1870
Adj Flow Rate, veh/h	191	1486	18	15	636	74	6	51	9	36	146	74
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	574	2620	32	289	2336	271	81	394	66	112	279	134
Arrive On Green	0.73	0.73	0.73	0.73	0.73	0.73	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	699	3596	44	330	3206	372	108	2669	444	282	1891	912
Grp Volume(v), veh/h	191	734	770	15	352	358	35	0	31	140	0	116
Grp Sat Flow(s),veh/h/ln	699	1777	1862	330	1777	1802	1705	0	1517	1655	0	1429
Q Serve(g_s), s	8.2	12.3	12.3	1.4	4.3	4.3	0.0	0.0	1.1	1.9	0.0	4.9
Cycle Q Clear(g_c), s	12.6	12.3	12.3	13.8	4.3	4.3	1.1	0.0	1.1	4.9	0.0	4.9
Prop In Lane	1.00		0.02	1.00		0.21	0.17		0.29	0.26		0.64
Lane Grp Cap(c), veh/h	574	1294	1357	289	1294	1312	317	0	224	314	0	211
V/C Ratio(X)	0.33	0.57	0.57	0.05	0.27	0.27	0.11	0.00	0.14	0.45	0.00	0.55
Avail Cap(c_a), veh/h	574	1294	1357	289	1294	1312	702	0	588	699	0	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.1	4.0	4.1	7.2	3.0	3.0	23.9	0.0	23.9	25.5	0.0	25.5
Incr Delay (d2), s/veh	1.6	1.8	1.7	0.3	0.5	0.5	0.2	0.0	0.3	1.0	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.6	2.7	0.1	0.9	0.9	0.4	0.0	0.4	1.9	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.6	5.9	5.8	7.6	3.5	3.5	24.1	0.0	24.2	26.5	0.0	27.8
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1695			725			66			256	
Approach Delay, s/veh		5.9			3.6			24.1			27.1	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.5		51.0		13.5		51.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		25.0		47.0		25.0		47.0				
Max Q Clear Time (g_c+I1), s		3.1		14.6		6.9		15.8				
Green Ext Time (p_c), s		0.2		15.4		1.2		4.8				
Intersection Summary												
HCM 6th Ctrl Delay				7.7								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
8: E St. & 5th St.

Horizon Year 2040 AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	80	1314	38	42	597	16	15	106	27	34	156	30
Future Volume (veh/h)	80	1314	38	42	597	16	15	106	27	34	156	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	84	1383	40	44	628	17	16	112	28	36	164	32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	485	2026	59	234	2030	55	33	237	59	82	293	57
Arrive On Green	0.57	0.57	0.57	0.57	0.57	0.57	0.02	0.16	0.16	0.05	0.19	0.19
Sat Flow, veh/h	742	3526	102	357	3534	96	1688	1435	359	1688	1513	295
Grp Volume(v), veh/h	84	696	727	44	316	329	16	0	140	36	0	196
Grp Sat Flow(s),veh/h/ln	742	1777	1851	357	1777	1852	1688	0	1793	1688	0	1808
Q Serve(g_s), s	3.7	15.5	15.6	5.6	5.2	5.2	0.5	0.0	4.0	1.2	0.0	5.5
Cycle Q Clear(g_c), s	8.9	15.5	15.6	21.1	5.2	5.2	0.5	0.0	4.0	1.2	0.0	5.5
Prop In Lane	1.00		0.06	1.00		0.05	1.00		0.20	1.00		0.16
Lane Grp Cap(c), veh/h	485	1021	1064	234	1021	1064	33	0	296	82	0	350
V/C Ratio(X)	0.17	0.68	0.68	0.19	0.31	0.31	0.48	0.00	0.47	0.44	0.00	0.56
Avail Cap(c_a), veh/h	485	1021	1064	234	1021	1064	179	0	935	179	0	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.5	8.4	8.4	15.8	6.2	6.2	27.4	0.0	21.4	26.2	0.0	20.6
Incr Delay (d2), s/veh	0.8	3.7	3.6	1.8	0.8	0.8	10.5	0.0	1.2	3.7	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.9	5.1	0.5	1.5	1.6	0.3	0.0	1.6	0.5	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.3	12.1	12.0	17.6	7.0	7.0	37.9	0.0	22.6	29.8	0.0	22.0
LnGrp LOS	A	B	B	B	A	A	D	A	C	C	A	C
Approach Vol, veh/h		1507			689			156			232	
Approach Delay, s/veh		11.9			7.7			24.1			23.2	
Approach LOS		B			A			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	13.3		36.5	5.1	15.0		36.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	6.0	29.5		32.5	6.0	29.5		32.5				
Max Q Clear Time (g_c+1), s	13.2	6.0		17.6	2.5	7.5		23.1				
Green Ext Time (p_c), s	0.0	0.7		8.6	0.0	1.0		3.0				

Intersection Summary

HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

Gateway Downtown San Bernardino
9: D St. & 5th St.

Horizon Year 2040 AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	59	1160	85	45	601	32	30	50	28	45	116	29
Future Volume (veh/h)	59	1160	85	45	601	32	30	50	28	45	116	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.97	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	62	1221	89	47	633	34	32	53	29	47	122	31
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	588	2403	175	334	2454	132	251	357	179	279	443	109
Arrive On Green	0.72	0.72	0.72	0.72	0.72	0.72	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	728	3358	244	398	3429	184	1157	2269	1137	1219	2818	692
Grp Volume(v), veh/h	62	645	665	47	328	339	32	40	42	47	75	78
Grp Sat Flow(s),veh/h/ln	728	1777	1826	398	1777	1836	1157	1777	1629	1219	1777	1733
Q Serve(g_s), s	2.0	10.2	10.2	3.8	4.0	4.1	1.6	1.2	1.4	2.2	2.3	2.5
Cycle Q Clear(g_c), s	6.1	10.2	10.2	14.0	4.0	4.1	4.1	1.2	1.4	3.6	2.3	2.5
Prop In Lane	1.00		0.13	1.00		0.10	1.00		0.70	1.00		0.40
Lane Grp Cap(c), veh/h	588	1271	1306	334	1271	1314	251	280	256	279	280	273
V/C Ratio(X)	0.11	0.51	0.51	0.14	0.26	0.26	0.13	0.14	0.16	0.17	0.27	0.28
Avail Cap(c_a), veh/h	588	1271	1306	334	1271	1314	565	763	699	611	763	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.2	4.0	4.0	7.1	3.1	3.1	25.2	22.9	22.9	24.5	23.3	23.4
Incr Delay (d2), s/veh	0.4	1.4	1.4	0.9	0.5	0.5	0.2	0.2	0.3	0.3	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.2	2.2	0.3	0.8	0.9	0.4	0.5	0.5	0.6	0.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.5	5.4	5.4	8.0	3.6	3.6	25.4	23.1	23.2	24.7	23.8	23.9
LnGrp LOS	A	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		1372			714			114			200	
Approach Delay, s/veh		5.4			3.9			23.8			24.1	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.9		49.0		13.9		49.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		27.0		45.0		27.0		45.0				
Max Q Clear Time (g_c+I1), s		6.1		12.2		5.6		16.0				
Green Ext Time (p_c), s		0.4		11.2		0.9		5.0				
Intersection Summary												
HCM 6th Ctrl Delay				7.4								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
10: Arrowhead Ave. & 5th St.

Horizon Year 2040 AM
Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	953	191	56	593	38	52	90	32	34	229	49
Future Volume (veh/h)	71	953	191	56	593	38	52	90	32	34	229	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	75	1003	201	59	624	40	55	95	34	36	241	52
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	565	2034	407	345	2338	150	226	480	164	294	540	114
Arrive On Green	0.69	0.69	0.69	0.69	0.69	0.69	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	731	2950	590	440	3391	217	1027	2593	885	1186	2916	618
Grp Volume(v), veh/h	75	603	601	59	327	337	55	64	65	36	145	148
Grp Sat Flow(s),veh/h/ln	731	1777	1763	440	1777	1831	1027	1777	1701	1186	1777	1757
Q Serve(g_s), s	2.8	10.2	10.2	4.7	4.5	4.5	3.2	1.9	2.1	1.7	4.6	4.8
Cycle Q Clear(g_c), s	7.3	10.2	10.2	14.9	4.5	4.5	8.0	1.9	2.1	3.8	4.6	4.8
Prop In Lane	1.00		0.33	1.00		0.12	1.00		0.52	1.00		0.35
Lane Grp Cap(c), veh/h	565	1225	1215	345	1225	1262	226	329	315	294	329	325
V/C Ratio(X)	0.13	0.49	0.49	0.17	0.27	0.27	0.24	0.19	0.21	0.12	0.44	0.45
Avail Cap(c_a), veh/h	565	1225	1215	345	1225	1262	487	780	746	595	780	771
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.2	4.7	4.7	8.2	3.8	3.8	26.7	22.0	22.0	23.6	23.1	23.1
Incr Delay (d2), s/veh	0.5	1.4	1.4	1.1	0.5	0.5	0.6	0.3	0.3	0.2	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.5	2.5	0.4	1.0	1.1	0.8	0.8	0.8	0.4	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.6	6.1	6.1	9.2	4.3	4.3	27.2	22.3	22.4	23.8	24.0	24.1
LnGrp LOS	A	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		1279			723			184			329	
Approach Delay, s/veh		6.1			4.7			23.8			24.0	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		15.8		48.0		15.8		48.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		28.0		44.0		28.0		44.0				
Max Q Clear Time (g_c+I1), s		10.0		12.2		6.8		16.9				
Green Ext Time (p_c), s		0.8		10.1		1.6		5.0				
Intersection Summary												
HCM 6th Ctrl Delay				9.3								
HCM 6th LOS				A								

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	13	42	23	160	238	13
Future Vol, veh/h	13	42	23	160	238	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	44	24	168	251	14

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	390	133	265	0	-	0
Stage 1	258	-	-	-	-	-
Stage 2	132	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	586	892	1296	-	-	-
Stage 1	761	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	574	892	1296	-	-	-
Mov Cap-2 Maneuver	574	-	-	-	-	-
Stage 1	746	-	-	-	-	-
Stage 2	880	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	1.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1296	-	789	-	-
HCM Lane V/C Ratio	0.019	-	0.073	-	-
HCM Control Delay (s)	7.8	0.1	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	35	1606	640	56	34	41
Future Vol, veh/h	35	1606	640	56	34	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	37	1691	674	59	36	43

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	733	0	-	0	1624 367
Stage 1	-	-	-	-	704 -
Stage 2	-	-	-	-	920 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	868	-	-	-	93 630
Stage 1	-	-	-	-	452 -
Stage 2	-	-	-	-	349 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	868	-	-	-	89 630
Mov Cap-2 Maneuver	-	-	-	-	216 -
Stage 1	-	-	-	-	433 -
Stage 2	-	-	-	-	349 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	18.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	868	-	-	-	337
HCM Lane V/C Ratio	0.042	-	-	-	0.234
HCM Control Delay (s)	9.3	-	-	-	18.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

Gateway Downtown San Bernardino
1: Mt. Vernon Ave. & 5th St.

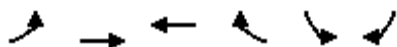
Horizon Year 2040 PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	588	124	82	632	168	140	660	109	124	423	93
Future Volume (veh/h)	109	588	124	82	632	168	140	660	109	124	423	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	115	619	131	86	665	177	147	695	115	131	445	98
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	1054	223	108	958	255	345	1250	207	248	1187	259
Arrive On Green	0.08	0.36	0.36	0.06	0.35	0.35	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1688	2908	614	1688	2773	737	817	3044	503	638	2890	631
Grp Volume(v), veh/h	115	378	372	86	426	416	147	405	405	131	272	271
Grp Sat Flow(s),veh/h/ln	1688	1777	1745	1688	1777	1734	817	1777	1770	638	1777	1745
Q Serve(g_s), s	5.0	12.7	12.8	3.7	15.2	15.3	11.3	12.9	12.9	14.6	7.9	8.0
Cycle Q Clear(g_c), s	5.0	12.7	12.8	3.7	15.2	15.3	19.3	12.9	12.9	27.5	7.9	8.0
Prop In Lane	1.00		0.35	1.00		0.43	1.00		0.28	1.00		0.36
Lane Grp Cap(c), veh/h	137	644	632	108	614	599	345	730	727	248	730	717
V/C Ratio(X)	0.84	0.59	0.59	0.79	0.69	0.69	0.43	0.56	0.56	0.53	0.37	0.38
Avail Cap(c_a), veh/h	137	644	632	137	614	599	358	758	755	258	758	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	19.1	19.1	34.1	20.8	20.8	21.9	16.6	16.6	27.1	15.1	15.2
Incr Delay (d2), s/veh	34.5	3.9	4.0	21.7	6.4	6.5	0.8	0.8	0.8	1.8	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	5.4	5.3	2.1	6.7	6.6	2.0	4.8	4.7	2.2	2.9	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.0	22.9	23.1	55.7	27.2	27.4	22.7	17.4	17.5	28.9	15.4	15.5
LnGrp LOS	E	C	C	E	C	C	C	B	B	C	B	B
Approach Vol, veh/h		865			928			957			674	
Approach Delay, s/veh		29.0			29.9			18.3			18.1	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		34.3	8.7	30.8		34.3	10.0	29.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		31.5	6.0	25.5		31.5	6.0	25.5				
Max Q Clear Time (g_c+I1), s		21.3	5.7	14.8		29.5	7.0	17.3				
Green Ext Time (p_c), s		4.1	0.0	3.3		0.9	0.0	3.2				
Intersection Summary												
HCM 6th Ctrl Delay			24.1									
HCM 6th LOS			C									

Gateway Downtown San Bernardino
2: 5th St. & J St.

Horizon Year 2040 PM
Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	14	906	997	134	94	7
Future Volume (veh/h)	14	906	997	134	94	7
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1870	1772	1772
Adj Flow Rate, veh/h	15	954	1049	141	99	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	415	2888	2558	343	128	9
Arrive On Green	0.81	0.81	0.81	0.81	0.08	0.08
Sat Flow, veh/h	446	3647	3242	423	1550	110
Grp Volume(v), veh/h	15	954	592	598	107	0
Grp Sat Flow(s),veh/h/ln	446	1777	1777	1794	1675	0
Q Serve(g_s), s	0.7	5.2	7.1	7.2	4.8	0.0
Cycle Q Clear(g_c), s	7.9	5.2	7.1	7.2	4.8	0.0
Prop In Lane	1.00			0.24	0.93	0.07
Lane Grp Cap(c), veh/h	415	2888	1444	1458	138	0
V/C Ratio(X)	0.04	0.33	0.41	0.41	0.77	0.00
Avail Cap(c_a), veh/h	415	2888	1444	1458	659	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	3.1	1.8	2.0	2.0	34.3	0.0
Incr Delay (d2), s/veh	0.2	0.3	0.9	0.9	8.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.5	0.9	0.9	2.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.3	2.1	2.9	2.9	43.2	0.0
LnGrp LOS	A	A	A	A	D	A
Approach Vol, veh/h		969	1190		107	
Approach Delay, s/veh		2.2	2.9		43.2	
Approach LOS		A	A		D	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				66.0	10.3	66.0
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				62.0	30.0	62.0
Max Q Clear Time (g_c+I1), s				9.9	6.8	9.2
Green Ext Time (p_c), s				8.3	0.2	9.9
Intersection Summary						
HCM 6th Ctrl Delay			4.5			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

Gateway Downtown San Bernardino
3: I-215 SB Ramps & 5th St.

Horizon Year 2040 PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑		↖↗	↑↑					↖	↔	↗
Traffic Volume (veh/h)	0	668	353	614	967	0	0	0	0	329	6	189
Future Volume (veh/h)	0	668	353	614	967	0	0	0	0	329	6	189
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No		No						No		
Adj Sat Flow, veh/h/ln	0	1870	1870	1673	1870	0				1772	1772	1870
Adj Flow Rate, veh/h	0	703	372	646	1018	0				410	0	135
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	2252	740	715	2640	0				493	0	231
Arrive On Green	0.00	0.47	0.47	0.31	0.99	0.00				0.15	0.00	0.15
Sat Flow, veh/h	0	5087	1585	3092	3647	0				3375	0	1582
Grp Volume(v), veh/h	0	703	372	646	1018	0				410	0	135
Grp Sat Flow(s),veh/h/ln	0	1609	1585	1546	1777	0				1688	0	1582
Q Serve(g_s), s	0.0	9.1	16.4	20.0	0.6	0.0				11.8	0.0	8.0
Cycle Q Clear(g_c), s	0.0	9.1	16.4	20.0	0.6	0.0				11.8	0.0	8.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2252	740	715	2640	0				493	0	231
V/C Ratio(X)	0.00	0.31	0.50	0.90	0.39	0.00				0.83	0.00	0.58
Avail Cap(c_a), veh/h	0	2252	740	1036	2640	0				817	0	383
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.95	0.95	0.82	0.82	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	16.6	18.6	33.6	0.2	0.0				41.5	0.0	39.9
Incr Delay (d2), s/veh	0.0	0.3	2.3	5.3	0.4	0.0				1.5	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.2	6.1	7.1	0.2	0.0				4.9	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.0	20.9	38.9	0.5	0.0				43.0	0.0	40.7
LnGrp LOS	A	B	C	D	A	A				D	A	D
Approach Vol, veh/h		1075			1664						545	
Approach Delay, s/veh		18.3			15.4						42.4	
Approach LOS		B			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	27.6	52.0		20.4		79.6						
Change Period (Y+Rc), s	4.5	5.3		5.8		5.3						
Max Green Setting (Gmax), s	33.5	26.7		24.2		64.7						
Max Q Clear Time (g_c+Q), s	22.6	18.4		13.8		2.6						
Green Ext Time (p_c), s	1.1	3.2		0.8		5.2						

Intersection Summary

HCM 6th Ctrl Delay		20.9	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

Horizon Year 2040 PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑	↔	↔	↔	↔			
Traffic Volume (veh/h)	392	939	0	0	1063	737	549	3	477	0	0	0
Future Volume (veh/h)	392	939	0	0	1063	737	549	3	477	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1673	1870	0	0	1870	1870	1772	1772	1870			
Adj Flow Rate, veh/h	413	988	0	0	1119	776	735	0	336			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	469	2285	0	0	2838	695	831	0	387			
Arrive On Green	0.15	0.64	0.00	0.00	0.44	0.44	0.25	0.00	0.25			
Sat Flow, veh/h	3092	3647	0	0	6696	1576	3375	0	1572			
Grp Volume(v), veh/h	413	988	0	0	1119	776	735	0	336			
Grp Sat Flow(s),veh/h/ln	1546	1777	0	0	1609	1576	1688	0	1572			
Q Serve(g_s), s	13.1	13.8	0.0	0.0	11.8	44.1	21.0	0.0	20.5			
Cycle Q Clear(g_c), s	13.1	13.8	0.0	0.0	11.8	44.1	21.0	0.0	20.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	469	2285	0	0	2838	695	831	0	387			
V/C Ratio(X)	0.88	0.43	0.00	0.00	0.39	1.12	0.88	0.00	0.87			
Avail Cap(c_a), veh/h	495	2285	0	0	2838	695	1053	0	490			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.89	0.89	0.00	0.00	0.41	0.41	1.00	0.00	1.00			
Uniform Delay (d), s/veh	41.5	8.8	0.0	0.0	18.9	27.9	36.3	0.0	36.1			
Incr Delay (d2), s/veh	13.9	0.5	0.0	0.0	0.2	60.9	6.6	0.0	10.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.7	4.7	0.0	0.0	4.2	26.9	9.0	0.0	8.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.4	9.4	0.0	0.0	19.1	88.9	42.9	0.0	47.1			
LnGrp LOS	E	A	A	A	B	F	D	A	D			
Approach Vol, veh/h		1401			1895			1071				
Approach Delay, s/veh		22.9			47.7			44.2				
Approach LOS		C			D			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		69.6			20.2	49.4		30.4				
Change Period (Y+Rc), s		5.3			5.0	5.3		5.8				
Max Green Setting (Gmax), s		57.7			16.0	36.7		31.2				
Max Q Clear Time (g_c+I1), s		15.8			15.1	46.1		23.0				
Green Ext Time (p_c), s		4.9			0.1	0.0		1.6				

Intersection Summary

HCM 6th Ctrl Delay	38.9
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
5: H St. & 5th St.

Horizon Year 2040 PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	965	100	6	1209	48	247	200	52	24	93	363
Future Volume (veh/h)	234	965	100	6	1209	48	247	200	52	24	93	363
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	246	1016	105	6	1273	51	260	211	55	25	98	382
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	246	1874	923	13	1355	54	367	731	186	361	893	622
Arrive On Green	0.15	0.53	0.53	0.01	0.39	0.39	0.06	0.26	0.26	0.05	0.25	0.25
Sat Flow, veh/h	1688	3554	1575	1688	3482	139	1688	2801	713	1688	3554	1555
Grp Volume(v), veh/h	246	1016	105	6	649	675	260	132	134	25	98	382
Grp Sat Flow(s),veh/h/ln	1688	1777	1575	1688	1777	1845	1688	1777	1737	1688	1777	1555
Q Serve(g_s), s	15.0	19.5	3.0	0.4	36.1	36.3	6.0	6.1	6.4	1.1	2.2	20.2
Cycle Q Clear(g_c), s	15.0	19.5	3.0	0.4	36.1	36.3	6.0	6.1	6.4	1.1	2.2	20.2
Prop In Lane	1.00		1.00	1.00		0.08	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	246	1874	923	13	691	718	367	464	453	361	893	622
V/C Ratio(X)	1.00	0.54	0.11	0.46	0.94	0.94	0.71	0.28	0.30	0.07	0.11	0.61
Avail Cap(c_a), veh/h	246	1874	923	98	691	718	367	657	642	378	1313	806
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	16.1	9.5	50.8	30.2	30.3	31.9	30.3	30.4	25.7	29.6	24.8
Incr Delay (d2), s/veh	57.2	1.1	0.3	23.7	22.2	21.8	6.2	0.3	0.4	0.1	0.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.5	1.0	0.2	18.7	19.4	3.5	2.6	2.6	0.4	0.9	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.1	17.2	9.7	74.5	52.4	52.1	38.1	30.7	30.8	25.8	29.7	25.8
LnGrp LOS	F	B	A	E	D	D	D	C	C	C	C	C
Approach Vol, veh/h		1367			1330			526			505	
Approach Delay, s/veh		31.7			52.4			34.4			26.5	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	30.8	4.8	58.2	10.0	29.8	19.0	44.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	30.0	38.0	6.0	49.0	6.0	38.0	15.0	40.0				
Max Q Clear Time (g_c+13), s	8.4	8.4	2.4	21.5	8.0	22.2	17.0	38.3				
Green Ext Time (p_c), s	0.0	1.5	0.0	8.2	0.0	1.7	0.0	1.3				

Intersection Summary

HCM 6th Ctrl Delay	38.8
HCM 6th LOS	D

Gateway Downtown San Bernardino
6: G St. & 5th St.

Horizon Year 2040 PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	872	46	11	1234	134	47	172	33	112	123	99
Future Volume (veh/h)	93	872	46	11	1234	134	47	172	33	112	123	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1772	1870	1772	1772	1870
Adj Flow Rate, veh/h	98	918	48	12	1299	141	49	181	35	118	129	104
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	240	2352	123	388	2214	239	120	431	90	196	219	195
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	351	3434	180	551	3233	349	294	1858	386	574	942	841
Grp Volume(v), veh/h	98	475	491	12	711	729	126	0	139	172	0	179
Grp Sat Flow(s),veh/h/ln	351	1777	1836	551	1777	1806	1004	0	1534	909	0	1448
Q Serve(g_s), s	19.7	11.1	11.1	0.9	20.3	20.5	3.9	0.0	7.4	11.5	0.0	10.4
Cycle Q Clear(g_c), s	40.3	11.1	11.1	12.0	20.3	20.5	14.4	0.0	7.4	18.9	0.0	10.4
Prop In Lane	1.00		0.10	1.00		0.19	0.39		0.25	0.69		0.58
Lane Grp Cap(c), veh/h	240	1217	1258	388	1217	1237	285	0	356	274	0	336
V/C Ratio(X)	0.41	0.39	0.39	0.03	0.58	0.59	0.44	0.00	0.39	0.63	0.00	0.53
Avail Cap(c_a), veh/h	240	1217	1258	388	1217	1237	338	0	414	321	0	391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.7	6.5	6.5	9.1	8.0	8.0	33.8	0.0	31.2	38.0	0.0	32.4
Incr Delay (d2), s/veh	5.1	0.9	0.9	0.1	2.1	2.1	1.1	0.0	0.7	3.0	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.6	3.7	0.1	6.7	6.9	2.7	0.0	2.7	4.0	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	7.5	7.4	9.3	10.0	10.1	34.8	0.0	31.9	40.9	0.0	33.7
LnGrp LOS	C	A	A	A	B	B	C	A	C	D	A	C
Approach Vol, veh/h		1064			1452			265			351	
Approach Delay, s/veh		9.0			10.1			33.3			37.3	
Approach LOS		A			B			C			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.4		70.0		26.4		70.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		66.0		26.0		66.0				
Max Q Clear Time (g_c+I1), s		16.4		42.3		20.9		22.5				
Green Ext Time (p_c), s		0.9		8.4		0.9		13.6				
Intersection Summary												
HCM 6th Ctrl Delay				14.7								
HCM 6th LOS				B								

Gateway Downtown San Bernardino
7: F St. & 5th St.

Horizon Year 2040 PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Volume (veh/h)	246	791	35	17	1207	104	27	139	31	56	113	191
Future Volume (veh/h)	246	791	35	17	1207	104	27	139	31	56	113	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1772	1870	1772	1772	1870
Adj Flow Rate, veh/h	259	833	37	18	1271	109	28	146	33	59	119	201
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	281	2507	111	460	2396	205	71	338	83	113	188	256
Arrive On Green	0.72	0.72	0.72	0.72	0.72	0.72	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	372	3465	154	603	3312	283	112	1765	432	322	984	1338
Grp Volume(v), veh/h	259	427	443	18	680	700	91	0	116	178	0	201
Grp Sat Flow(s),veh/h/ln	372	1777	1842	603	1777	1819	788	0	1521	1306	0	1338
Q Serve(g_s), s	51.8	8.2	8.2	1.1	16.1	16.2	0.6	0.0	6.3	6.6	0.0	13.4
Cycle Q Clear(g_c), s	68.0	8.2	8.2	9.3	16.1	16.2	14.1	0.0	6.3	12.8	0.0	13.4
Prop In Lane	1.00		0.08	1.00		0.16	0.31		0.28	0.33		1.00
Lane Grp Cap(c), veh/h	281	1286	1333	460	1286	1316	201	0	291	301	0	256
V/C Ratio(X)	0.92	0.33	0.33	0.04	0.53	0.53	0.45	0.00	0.40	0.59	0.00	0.79
Avail Cap(c_a), veh/h	281	1286	1333	460	1286	1316	292	0	389	396	0	342
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.5	4.7	4.7	6.4	5.8	5.8	32.9	0.0	33.3	36.1	0.0	36.2
Incr Delay (d2), s/veh	36.6	0.7	0.7	0.2	1.6	1.5	1.6	0.0	0.9	1.9	0.0	8.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	2.4	2.5	0.1	4.8	5.0	1.8	0.0	2.3	3.9	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.1	5.4	5.4	6.6	7.4	7.4	34.4	0.0	34.2	37.9	0.0	44.5
LnGrp LOS	E	A	A	A	A	A	C	A	C	D	A	D
Approach Vol, veh/h		1129			1398			207			379	
Approach Delay, s/veh		18.6			7.4			34.3			41.4	
Approach LOS		B			A			C			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.0		72.0		22.0		72.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		24.0		68.0		24.0		68.0				
Max Q Clear Time (g_c+I1), s		16.1		70.0		15.4		18.2				
Green Ext Time (p_c), s		0.6		0.0		1.4		13.0				
Intersection Summary												
HCM 6th Ctrl Delay				17.4								
HCM 6th LOS				B								

Gateway Downtown San Bernardino
8: E St. & 5th St.

Horizon Year 2040 PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	754	53	46	1115	19	86	319	42	39	192	55
Future Volume (veh/h)	39	754	53	46	1115	19	86	319	42	39	192	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	41	794	56	48	1174	20	91	336	44	41	202	58
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	242	1887	133	349	2007	34	164	412	54	62	271	78
Arrive On Green	0.56	0.56	0.56	0.56	0.56	0.56	0.10	0.25	0.25	0.04	0.19	0.19
Sat Flow, veh/h	444	3361	237	614	3575	61	1688	1615	212	1688	1391	399
Grp Volume(v), veh/h	41	420	430	48	583	611	91	0	380	41	0	260
Grp Sat Flow(s),veh/h/ln	444	1777	1821	614	1777	1859	1688	0	1827	1688	0	1790
Q Serve(g_s), s	5.4	11.1	11.1	4.0	17.6	17.6	4.2	0.0	16.0	2.0	0.0	11.2
Cycle Q Clear(g_c), s	23.0	11.1	11.1	15.1	17.6	17.6	4.2	0.0	16.0	2.0	0.0	11.2
Prop In Lane	1.00		0.13	1.00		0.03	1.00		0.12	1.00		0.22
Lane Grp Cap(c), veh/h	242	998	1023	349	998	1044	164	0	466	62	0	348
V/C Ratio(X)	0.17	0.42	0.42	0.14	0.58	0.58	0.55	0.00	0.82	0.66	0.00	0.75
Avail Cap(c_a), veh/h	242	998	1023	349	998	1044	206	0	781	144	0	699
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.2	10.3	10.3	14.6	11.7	11.7	35.3	0.0	28.7	38.9	0.0	31.1
Incr Delay (d2), s/veh	1.5	1.3	1.3	0.8	2.5	2.4	2.9	0.0	3.5	11.1	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.0	4.1	0.6	6.5	6.7	1.8	0.0	7.0	1.0	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	11.6	11.6	15.5	14.2	14.1	38.2	0.0	32.3	50.0	0.0	34.3
LnGrp LOS	C	B	B	B	B	B	D	A	C	D	A	C
Approach Vol, veh/h		891			1242			471			301	
Approach Delay, s/veh		12.0			14.2			33.4			36.4	
Approach LOS		B			B			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	24.9		50.0	12.0	19.9		50.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	35.0	35.0		46.0	10.0	32.0		46.0				
Max Q Clear Time (g_c+14), s	18.0	18.0		25.0	6.2	13.2		19.6				
Green Ext Time (p_c), s	0.0	2.0		5.7	0.1	1.3		9.1				
Intersection Summary												
HCM 6th Ctrl Delay											19.0	
HCM 6th LOS											B	

Gateway Downtown San Bernardino
9: D St. & 5th St.

Horizon Year 2040 PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	749	54	33	972	56	127	165	25	40	118	94
Future Volume (veh/h)	77	749	54	33	972	56	127	165	25	40	118	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	81	788	57	35	1023	59	134	174	26	42	124	99
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	350	2274	164	440	2312	133	271	710	104	286	445	325
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	494	3358	243	616	3414	197	1091	3097	454	1109	1939	1416
Grp Volume(v), veh/h	81	417	428	35	532	550	134	98	102	42	113	110
Grp Sat Flow(s),veh/h/ln	494	1777	1824	616	1777	1834	1091	1777	1774	1109	1777	1578
Q Serve(g_s), s	7.7	8.5	8.5	2.2	11.8	11.8	9.9	3.9	4.0	2.8	4.5	5.0
Cycle Q Clear(g_c), s	19.6	8.5	8.5	10.7	11.8	11.8	14.9	3.9	4.0	6.8	4.5	5.0
Prop In Lane	1.00		0.13	1.00		0.11	1.00		0.26	1.00		0.90
Lane Grp Cap(c), veh/h	350	1203	1235	440	1203	1242	271	407	407	286	407	362
V/C Ratio(X)	0.23	0.35	0.35	0.08	0.44	0.44	0.49	0.24	0.25	0.15	0.28	0.30
Avail Cap(c_a), veh/h	350	1203	1235	440	1203	1242	454	705	704	473	705	627
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.9	5.8	5.8	8.1	6.4	6.4	33.5	26.9	27.0	29.7	27.2	27.3
Incr Delay (d2), s/veh	1.5	0.8	0.8	0.4	1.2	1.1	1.4	0.3	0.3	0.2	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.6	2.7	0.3	3.7	3.8	2.6	1.6	1.6	0.7	1.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.4	6.6	6.6	8.4	7.5	7.5	34.9	27.2	27.3	30.0	27.5	27.8
LnGrp LOS	B	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		926			1117			334			265	
Approach Delay, s/veh		7.1			7.6			30.3			28.0	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.6		62.0		23.6		62.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		34.0		58.0		34.0		58.0				
Max Q Clear Time (g_c+I1), s		16.9		21.6		8.8		13.8				
Green Ext Time (p_c), s		1.4		7.1		1.4		8.8				
Intersection Summary												
HCM 6th Ctrl Delay				12.3								
HCM 6th LOS				B								

Gateway Downtown San Bernardino
10: Arrowhead Ave. & 5th St.

Horizon Year 2040 PM
Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	68	714	55	45	883	49	110	402	99	26	157	60
Future Volume (veh/h)	68	714	55	45	883	49	110	402	99	26	157	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	72	752	58	47	929	52	116	423	104	27	165	63
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	382	2226	172	451	2280	128	284	666	162	170	599	219
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	543	3339	257	638	3421	191	1086	2816	685	827	2531	926
Grp Volume(v), veh/h	72	400	410	47	483	498	116	265	262	27	114	114
Grp Sat Flow(s),veh/h/ln	543	1777	1820	638	1777	1835	1086	1777	1725	827	1777	1680
Q Serve(g_s), s	5.8	8.0	8.0	2.8	10.3	10.3	8.1	11.1	11.3	2.5	4.3	4.6
Cycle Q Clear(g_c), s	16.0	8.0	8.0	10.8	10.3	10.3	12.7	11.1	11.3	13.8	4.3	4.6
Prop In Lane	1.00		0.14	1.00		0.10	1.00		0.40	1.00		0.55
Lane Grp Cap(c), veh/h	382	1184	1213	451	1184	1223	284	420	408	170	420	397
V/C Ratio(X)	0.19	0.34	0.34	0.10	0.41	0.41	0.41	0.63	0.64	0.16	0.27	0.29
Avail Cap(c_a), veh/h	382	1184	1213	451	1184	1223	514	797	773	345	797	753
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.0	5.9	5.9	8.3	6.3	6.3	31.0	28.3	28.4	34.6	25.7	25.8
Incr Delay (d2), s/veh	1.1	0.8	0.8	0.5	1.0	1.0	0.9	1.6	1.7	0.4	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.5	2.5	0.4	3.2	3.3	2.1	4.6	4.6	0.5	1.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.1	6.7	6.7	8.7	7.3	7.3	31.9	29.8	30.0	35.0	26.0	26.2
LnGrp LOS	B	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		882			1028			643			255	
Approach Delay, s/veh		7.0			7.4			30.3			27.1	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.5		59.0		23.5		59.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		37.0		55.0		37.0		55.0				
Max Q Clear Time (g_c+I1), s		14.7		18.0		15.8		12.8				
Green Ext Time (p_c), s		3.5		6.5		1.3		7.7				
Intersection Summary												
HCM 6th Ctrl Delay				14.3								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	13	41	23	383	301	13
Future Vol, veh/h	13	41	23	383	301	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	43	24	403	317	14

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	574	166	331	0	-	0
Stage 1	324	-	-	-	-	-
Stage 2	250	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	449	849	1225	-	-	-
Stage 1	705	-	-	-	-	-
Stage 2	768	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	438	849	1225	-	-	-
Mov Cap-2 Maneuver	438	-	-	-	-	-
Stage 1	687	-	-	-	-	-
Stage 2	768	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1225	-	693	-	-
HCM Lane V/C Ratio	0.02	-	0.082	-	-
HCM Control Delay (s)	8	0.1	10.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	33	1003	1359	54	30	38
Future Vol, veh/h	33	1003	1359	54	30	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	1056	1431	57	32	40

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1488	0	-	0	2058 744
Stage 1	-	-	-	-	1460 -
Stage 2	-	-	-	-	598 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	448	-	-	-	48 357
Stage 1	-	-	-	-	180 -
Stage 2	-	-	-	-	512 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	448	-	-	-	44 357
Mov Cap-2 Maneuver	-	-	-	-	128 -
Stage 1	-	-	-	-	166 -
Stage 2	-	-	-	-	512 -






















Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	32.7
HCM LOS			D

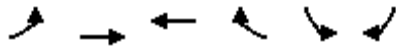
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	448	-	-	-	200
HCM Lane V/C Ratio	0.078	-	-	-	0.358
HCM Control Delay (s)	13.7	-	-	-	32.7
HCM Lane LOS	B	-	-	-	D
HCM 95th %tile Q(veh)	0.3	-	-	-	1.5

Gateway Downtown San Bernardino
1: Mt. Vernon Ave. & 5th St.

Horizon Year 2040 + Project AM

Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	563	139	67	492	93	73	328	51	140	524	69
Future Volume (veh/h)	71	563	139	67	492	93	73	328	51	140	524	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	75	593	146	71	518	98	77	345	54	147	552	73
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	1191	292	97	1254	236	253	992	154	338	1016	134
Arrive On Green	0.06	0.42	0.42	0.06	0.42	0.42	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1688	2819	692	1688	2981	562	756	3081	478	931	3153	416
Grp Volume(v), veh/h	75	373	366	71	308	308	77	198	201	147	310	315
Grp Sat Flow(s),veh/h/ln	1688	1777	1734	1688	1777	1766	756	1777	1781	931	1777	1792
Q Serve(g_s), s	2.7	9.3	9.4	2.5	7.4	7.4	5.6	5.1	5.2	8.7	8.7	8.8
Cycle Q Clear(g_c), s	2.7	9.3	9.4	2.5	7.4	7.4	14.4	5.1	5.2	13.9	8.7	8.8
Prop In Lane	1.00		0.40	1.00		0.32	1.00		0.27	1.00		0.23
Lane Grp Cap(c), veh/h	100	751	733	97	748	743	253	572	574	338	572	577
V/C Ratio(X)	0.75	0.50	0.50	0.73	0.41	0.41	0.30	0.35	0.35	0.43	0.54	0.55
Avail Cap(c_a), veh/h	195	751	733	195	748	743	328	748	749	430	748	754
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	12.8	12.8	28.1	12.3	12.3	22.8	15.7	15.7	21.0	16.9	16.9
Incr Delay (d2), s/veh	10.7	2.3	2.4	10.1	1.7	1.7	0.7	0.4	0.4	0.9	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.5	3.5	1.2	2.7	2.7	0.9	1.8	1.9	1.7	3.2	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.8	15.1	15.2	38.2	14.0	14.0	23.5	16.0	16.1	21.9	17.7	17.7
LnGrp LOS	D	B	B	D	B	B	C	B	B	C	B	B
Approach Vol, veh/h		814			687			476			772	
Approach Delay, s/veh		17.4			16.5			17.3			18.5	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.5	7.5	29.6		23.5	7.6	29.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		25.5	7.0	25.5		25.5	7.0	25.5				
Max Q Clear Time (g_c+I1), s		16.4	4.5	11.4		15.9	4.7	9.4				
Green Ext Time (p_c), s		1.8	0.0	3.7		3.1	0.0	3.2				
Intersection Summary												
HCM 6th Ctrl Delay			17.4									
HCM 6th LOS			B									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	851	680	51	132	21
Future Volume (veh/h)	8	851	680	51	132	21
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1870	1772	1772
Adj Flow Rate, veh/h	8	896	716	54	139	22
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	563	2585	2436	184	181	29
Arrive On Green	0.73	0.73	0.73	0.73	0.13	0.13
Sat Flow, veh/h	662	3647	3442	252	1421	225
Grp Volume(v), veh/h	8	896	380	390	162	0
Grp Sat Flow(s),veh/h/ln	662	1777	1777	1825	1657	0
Q Serve(g_s), s	0.2	5.1	4.1	4.1	5.2	0.0
Cycle Q Clear(g_c), s	4.3	5.1	4.1	4.1	5.2	0.0
Prop In Lane	1.00			0.14	0.86	0.14
Lane Grp Cap(c), veh/h	563	2585	1293	1327	210	0
V/C Ratio(X)	0.01	0.35	0.29	0.29	0.77	0.00
Avail Cap(c_a), veh/h	563	2585	1293	1327	964	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	3.3	2.7	2.6	2.6	23.2	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.6	0.6	5.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.6	0.6	0.6	2.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.4	3.1	3.2	3.2	29.1	0.0
LnGrp LOS	A	A	A	A	C	A
Approach Vol, veh/h		904	770		162	
Approach Delay, s/veh		3.1	3.2		29.1	
Approach LOS		A	A		C	
Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			44.0		11.0	44.0
Change Period (Y+Rc), s			4.0		4.0	4.0
Max Green Setting (Gmax), s			40.0		32.0	40.0
Max Q Clear Time (g_c+I1), s			7.1		7.2	6.1
Green Ext Time (p_c), s			6.9		0.4	5.0
Intersection Summary						
HCM 6th Ctrl Delay			5.4			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

Gateway Downtown San Bernardino
3: I-215 SB Ramps & 5th St.

Horizon Year 2040 + Project AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑		↔↔	↑↑					↔	↔	↔
Traffic Volume (veh/h)	0	585	397	393	537	0	0	0	0	770	13	185
Future Volume (veh/h)	0	585	397	393	537	0	0	0	0	770	13	185
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1673	1870	0				1772	1772	1870
Adj Flow Rate, veh/h	0	616	418	414	565	0				877	0	135
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1708	561	487	2017	0				991	0	465
Arrive On Green	0.00	0.35	0.35	0.21	0.75	0.00				0.29	0.00	0.29
Sat Flow, veh/h	0	5087	1585	3092	3647	0				3375	0	1585
Grp Volume(v), veh/h	0	616	418	414	565	0				877	0	135
Grp Sat Flow(s),veh/h/ln	0	1609	1585	1546	1777	0				1688	0	1585
Q Serve(g_s), s	0.0	7.6	18.5	10.3	4.0	0.0				19.8	0.0	5.3
Cycle Q Clear(g_c), s	0.0	7.6	18.5	10.3	4.0	0.0				19.8	0.0	5.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1708	561	487	2017	0				991	0	465
V/C Ratio(X)	0.00	0.36	0.75	0.85	0.28	0.00				0.89	0.00	0.29
Avail Cap(c_a), veh/h	0	1708	561	599	2017	0				1316	0	618
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.93	0.93	0.95	0.95	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	19.1	22.7	30.7	4.7	0.0				27.0	0.0	21.8
Incr Delay (d2), s/veh	0.0	0.6	8.1	7.7	0.3	0.0				4.9	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.7	7.5	3.9	1.2	0.0				8.0	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.7	30.8	38.4	5.1	0.0				31.9	0.0	21.9
LnGrp LOS		A	B	C	D	A	A			C	A	C
Approach Vol, veh/h		1034			979					1012		
Approach Delay, s/veh		24.2			19.2					30.6		
Approach LOS		C			B					C		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	7.1	33.6		29.3		50.7						
Change Period (Y+Rc), s	4.5	5.3		5.8		5.3						
Max Green Setting (Gmax), s	5.5	17.7		31.2		37.7						
Max Q Clear Time (g_c+1/3), s	12.3	20.5		21.8		6.0						
Green Ext Time (p_c), s	0.3	0.0		1.6		2.4						

Intersection Summary

HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

Horizon Year 2040 + Project AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑↑	↔	↔	↔	↔			
Traffic Volume (veh/h)	166	1194	0	0	658	225	254	2	709	0	0	0
Future Volume (veh/h)	166	1194	0	0	658	225	254	2	709	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1673	1870	0	0	1870	1870	1772	1772	1870			
Adj Flow Rate, veh/h	175	1257	0	0	693	237	179	0	842			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	246	2002	0	0	2710	659	503	0	936			
Arrive On Green	0.03	0.19	0.00	0.00	0.42	0.42	0.30	0.00	0.30			
Sat Flow, veh/h	3092	3647	0	0	6696	1564	1688	0	3143			
Grp Volume(v), veh/h	175	1257	0	0	693	237	179	0	842			
Grp Sat Flow(s),veh/h/ln	1546	1777	0	0	1609	1564	1688	0	1572			
Q Serve(g_s), s	4.5	26.1	0.0	0.0	5.6	8.3	6.7	0.0	20.6			
Cycle Q Clear(g_c), s	4.5	26.1	0.0	0.0	5.6	8.3	6.7	0.0	20.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	246	2002	0	0	2710	659	503	0	936			
V/C Ratio(X)	0.71	0.63	0.00	0.00	0.26	0.36	0.36	0.00	0.90			
Avail Cap(c_a), veh/h	271	2002	0	0	2710	659	574	0	1069			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.76	0.76	0.00	0.00	0.93	0.93	1.00	0.00	1.00			
Uniform Delay (d), s/veh	38.0	24.8	0.0	0.0	15.0	15.8	22.1	0.0	26.9			
Incr Delay (d2), s/veh	4.6	1.1	0.0	0.0	0.2	1.4	0.2	0.0	8.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.8	12.4	0.0	0.0	1.9	2.9	2.5	0.0	8.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	26.0	0.0	0.0	15.2	17.2	22.2	0.0	35.7			
LnGrp LOS	D	C	A	A	B	B	C	A	D			
Approach Vol, veh/h		1432			930			1021				
Approach Delay, s/veh		28.0			15.7			33.3				
Approach LOS		C			B			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		50.4			11.4	39.0		29.6				
Change Period (Y+Rc), s		5.3			5.0	5.3		5.8				
Max Green Setting (Gmax), s		41.7			7.0	29.7		27.2				
Max Q Clear Time (g_c+I1), s		28.1			6.5	10.3		22.6				
Green Ext Time (p_c), s		5.1			0.0	3.3		1.3				

Intersection Summary

HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
5: H St. & 5th St.

Horizon Year 2040 + Project AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	1619	144	3	639	24	64	79	11	35	119	191
Future Volume (veh/h)	135	1619	144	3	639	24	64	79	11	35	119	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	142	1704	152	3	673	25	67	83	12	37	125	201
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	176	2085	1022	7	1700	63	314	492	70	352	562	416
Arrive On Green	0.10	0.59	0.59	0.00	0.49	0.49	0.06	0.16	0.16	0.06	0.16	0.16
Sat Flow, veh/h	1688	3554	1582	1688	3494	130	1688	3122	442	1688	3554	1585
Grp Volume(v), veh/h	142	1704	152	3	342	356	67	46	49	37	125	201
Grp Sat Flow(s),veh/h/ln	1688	1777	1582	1688	1777	1847	1688	1777	1788	1688	1777	1585
Q Serve(g_s), s	6.9	31.8	3.1	0.1	10.2	10.2	2.7	1.9	2.0	1.5	2.6	8.9
Cycle Q Clear(g_c), s	6.9	31.8	3.1	0.1	10.2	10.2	2.7	1.9	2.0	1.5	2.6	8.9
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	176	2085	1022	7	865	899	314	280	282	352	562	416
V/C Ratio(X)	0.81	0.82	0.15	0.44	0.40	0.40	0.21	0.17	0.17	0.11	0.22	0.48
Avail Cap(c_a), veh/h	303	2085	1022	121	865	899	335	809	814	372	1617	886
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	13.7	5.8	41.5	13.6	13.6	26.7	30.4	30.5	26.2	30.7	26.0
Incr Delay (d2), s/veh	8.5	3.7	0.3	39.2	1.4	1.3	0.3	0.3	0.3	0.1	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	11.3	0.9	0.1	4.0	4.1	1.1	0.8	0.8	0.6	1.1	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	17.4	6.1	80.7	15.0	14.9	27.0	30.7	30.7	26.3	30.9	26.9
LnGrp LOS	D	B	A	F	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1998			701			162			363	
Approach Delay, s/veh		18.5			15.2			29.2			28.2	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	17.2	4.3	53.0	9.0	17.2	12.7	44.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	38.0	6.0	49.0	6.0	38.0	15.0	40.0				
Max Q Clear Time (g_c+1), s	13.5	4.0	2.1	33.8	4.7	10.9	8.9	12.2				
Green Ext Time (p_c), s	0.0	0.5	0.0	10.7	0.0	1.4	0.2	4.2				
Intersection Summary												
HCM 6th Ctrl Delay				19.4								
HCM 6th LOS				B								

Gateway Downtown San Bernardino
6: G St. & 5th St.

Horizon Year 2040 + Project AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	1448	75	24	601	60	31	35	8	75	133	68
Future Volume (veh/h)	103	1448	75	24	601	60	31	35	8	75	133	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1772	1870	1772	1772	1870
Adj Flow Rate, veh/h	108	1524	79	25	633	63	33	37	8	79	140	72
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	568	2453	127	257	2329	232	185	222	51	186	251	131
Arrive On Green	0.71	0.71	0.71	0.71	0.71	0.71	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	709	3437	177	300	3263	324	499	1369	311	634	1543	807
Grp Volume(v), veh/h	108	785	818	25	344	352	38	0	40	160	0	131
Grp Sat Flow(s),veh/h/ln	709	1777	1837	300	1777	1810	630	0	1549	1521	0	1464
Q Serve(g_s), s	4.1	14.7	14.9	3.0	4.4	4.5	1.5	0.0	1.4	4.9	0.0	5.3
Cycle Q Clear(g_c), s	8.6	14.7	14.9	17.9	4.4	4.5	6.8	0.0	1.4	6.3	0.0	5.3
Prop In Lane	1.00		0.10	1.00		0.18	0.86		0.20	0.49		0.55
Lane Grp Cap(c), veh/h	568	1268	1312	257	1268	1292	206	0	252	330	0	238
V/C Ratio(X)	0.19	0.62	0.62	0.10	0.27	0.27	0.19	0.00	0.16	0.49	0.00	0.55
Avail Cap(c_a), veh/h	568	1268	1312	257	1268	1292	481	0	617	682	0	583
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.8	4.7	4.8	9.4	3.3	3.3	26.7	0.0	23.3	25.3	0.0	24.9
Incr Delay (d2), s/veh	0.7	2.3	2.2	0.8	0.5	0.5	0.4	0.0	0.3	1.1	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln0.5		3.4	3.5	0.2	1.0	1.0	0.5	0.0	0.5	2.2	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.6	7.0	7.0	10.1	3.8	3.8	27.2	0.0	23.6	26.4	0.0	26.9
LnGrp LOS	A	A	A	B	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1711			721			78			291	
Approach Delay, s/veh		6.9			4.0			25.3			26.6	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		14.5		50.2		14.5		50.2				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		25.8		46.2		25.8		46.2				
Max Q Clear Time (g_c+I1), s		8.8		16.9		8.3		19.9				
Green Ext Time (p_c), s		0.3		15.0		1.4		4.9				
Intersection Summary												
HCM 6th Ctrl Delay				8.7								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
7: F St. & 5th St.

Horizon Year 2040 + Project AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	1424	18	14	622	70	8	48	9	34	139	72
Future Volume (veh/h)	182	1424	18	14	622	70	8	48	9	34	139	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1772	1870	1772	1772	1870
Adj Flow Rate, veh/h	192	1499	19	15	655	74	8	51	9	36	146	76
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	564	2616	33	285	2342	264	92	384	64	111	278	137
Arrive On Green	0.73	0.73	0.73	0.73	0.73	0.73	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	687	3593	46	326	3217	363	165	2589	434	280	1875	927
Grp Volume(v), veh/h	192	741	777	15	361	368	37	0	31	141	0	117
Grp Sat Flow(s),veh/h/ln	687	1777	1862	326	1777	1803	1670	0	1519	1656	0	1426
Q Serve(g_s), s	8.6	12.6	12.6	1.5	4.5	4.5	0.0	0.0	1.2	1.9	0.0	4.9
Cycle Q Clear(g_c), s	13.1	12.6	12.6	14.0	4.5	4.5	1.2	0.0	1.2	5.0	0.0	4.9
Prop In Lane	1.00		0.02	1.00		0.20	0.22		0.29	0.26		0.65
Lane Grp Cap(c), veh/h	564	1293	1355	285	1293	1313	315	0	225	315	0	211
V/C Ratio(X)	0.34	0.57	0.57	0.05	0.28	0.28	0.12	0.00	0.14	0.45	0.00	0.55
Avail Cap(c_a), veh/h	564	1293	1355	285	1293	1313	689	0	588	699	0	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.2	4.1	4.1	7.4	3.0	3.0	23.9	0.0	23.9	25.5	0.0	25.5
Incr Delay (d2), s/veh	1.6	1.8	1.8	0.4	0.5	0.5	0.2	0.0	0.3	1.0	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.6	2.7	0.1	0.9	0.9	0.5	0.0	0.4	1.9	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.9	5.9	5.9	7.7	3.5	3.5	24.1	0.0	24.2	26.5	0.0	27.8
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1710			744			68			258	
Approach Delay, s/veh		6.0			3.6			24.1			27.1	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.6		51.0		13.6		51.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		25.0		47.0		25.0		47.0				
Max Q Clear Time (g_c+I1), s		3.2		15.1		7.0		16.0				
Green Ext Time (p_c), s		0.3		15.6		1.2		5.0				
Intersection Summary												
HCM 6th Ctrl Delay				7.8								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
8: E St. & 5th St.

Horizon Year 2040 + Project AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	1324	39	42	611	16	17	106	27	34	156	32
Future Volume (veh/h)	81	1324	39	42	611	16	17	106	27	34	156	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	85	1394	41	44	643	17	18	112	28	36	164	34
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	476	2017	59	230	2024	53	37	236	59	87	291	60
Arrive On Green	0.57	0.57	0.57	0.57	0.57	0.57	0.02	0.16	0.16	0.05	0.19	0.19
Sat Flow, veh/h	732	3524	104	353	3536	93	1688	1435	359	1688	1495	310
Grp Volume(v), veh/h	85	702	733	44	323	337	18	0	140	36	0	198
Grp Sat Flow(s),veh/h/ln	732	1777	1851	353	1777	1853	1688	0	1793	1688	0	1805
Q Serve(g_s), s	3.9	15.9	15.9	5.7	5.4	5.4	0.6	0.0	4.0	1.2	0.0	5.6
Cycle Q Clear(g_c), s	9.3	15.9	15.9	21.7	5.4	5.4	0.6	0.0	4.0	1.2	0.0	5.6
Prop In Lane	1.00		0.06	1.00		0.05	1.00		0.20	1.00		0.17
Lane Grp Cap(c), veh/h	476	1017	1059	230	1017	1060	37	0	295	87	0	351
V/C Ratio(X)	0.18	0.69	0.69	0.19	0.32	0.32	0.49	0.00	0.47	0.41	0.00	0.56
Avail Cap(c_a), veh/h	476	1017	1059	230	1017	1060	178	0	931	178	0	937
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.8	8.6	8.6	16.3	6.3	6.4	27.5	0.0	21.5	26.1	0.0	20.7
Incr Delay (d2), s/veh	0.8	3.8	3.7	1.8	0.8	0.8	9.8	0.0	1.2	3.1	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.0	5.2	0.5	1.6	1.6	0.3	0.0	1.6	0.5	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.6	12.4	12.3	18.1	7.2	7.1	37.2	0.0	22.7	29.2	0.0	22.1
LnGrp LOS	A	B	B	B	A	A	D	A	C	C	A	C
Approach Vol, veh/h		1520			704			158			234	
Approach Delay, s/veh		12.2			7.8			24.3			23.2	
Approach LOS		B			A			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	13.4		36.5	5.2	15.1		36.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	30.0	29.5		32.5	6.0	29.5		32.5				
Max Q Clear Time (g_c+1), s	13.2	6.0		17.9	2.6	7.6		23.7				
Green Ext Time (p_c), s	0.0	0.7		8.5	0.0	1.0		3.0				
Intersection Summary												
HCM 6th Ctrl Delay											12.8	
HCM 6th LOS											B	

Gateway Downtown San Bernardino
9: D St. & 5th St.

Horizon Year 2040 + Project AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1168	86	45	612	32	32	50	28	45	116	31
Future Volume (veh/h)	60	1168	86	45	612	32	32	50	28	45	116	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.97	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	63	1229	91	47	644	34	34	53	29	47	122	33
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	582	2399	177	331	2456	130	250	357	179	280	437	114
Arrive On Green	0.72	0.72	0.72	0.72	0.72	0.72	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	720	3354	248	394	3433	181	1154	2269	1137	1219	2778	725
Grp Volume(v), veh/h	63	650	670	47	333	345	34	40	42	47	76	79
Grp Sat Flow(s),veh/h/ln	720	1777	1825	394	1777	1837	1154	1777	1629	1219	1777	1727
Q Serve(g_s), s	2.1	10.3	10.4	3.8	4.1	4.1	1.7	1.2	1.4	2.2	2.4	2.5
Cycle Q Clear(g_c), s	6.3	10.3	10.4	14.2	4.1	4.1	4.2	1.2	1.4	3.6	2.4	2.5
Prop In Lane	1.00		0.14	1.00		0.10	1.00		0.70	1.00		0.42
Lane Grp Cap(c), veh/h	582	1271	1306	331	1271	1314	250	280	257	280	280	272
V/C Ratio(X)	0.11	0.51	0.51	0.14	0.26	0.26	0.14	0.14	0.16	0.17	0.27	0.29
Avail Cap(c_a), veh/h	582	1271	1306	331	1271	1314	564	763	699	611	763	741
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.2	4.0	4.0	7.2	3.1	3.1	25.2	22.8	22.9	24.5	23.3	23.4
Incr Delay (d2), s/veh	0.4	1.5	1.4	0.9	0.5	0.5	0.2	0.2	0.3	0.3	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.2	2.3	0.3	0.8	0.9	0.4	0.5	0.5	0.6	0.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.6	5.5	5.5	8.1	3.6	3.6	25.5	23.1	23.2	24.7	23.9	24.0
LnGrp LOS	A	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		1383			725			116			202	
Approach Delay, s/veh		5.4			3.9			23.8			24.1	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.9		49.0		13.9		49.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		27.0		45.0		27.0		45.0				
Max Q Clear Time (g_c+I1), s		6.2		12.4		5.6		16.2				
Green Ext Time (p_c), s		0.4		11.4		0.9		5.1				
Intersection Summary												
HCM 6th Ctrl Delay				7.4								
HCM 6th LOS				A								

Gateway Downtown San Bernardino
10: Arrowhead Ave. & 5th St.

Horizon Year 2040 + Project AM

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	959	192	56	601	38	54	90	32	34	229	51
Future Volume (veh/h)	72	959	192	56	601	38	54	90	32	34	229	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	76	1009	202	59	633	40	57	95	34	36	241	54
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	559	2029	405	342	2334	147	227	486	166	296	542	119
Arrive On Green	0.69	0.69	0.69	0.69	0.69	0.69	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	725	2950	589	437	3394	214	1025	2593	885	1186	2894	636
Grp Volume(v), veh/h	76	607	604	59	331	342	57	64	65	36	146	149
Grp Sat Flow(s),veh/h/ln	725	1777	1763	437	1777	1832	1025	1777	1701	1186	1777	1753
Q Serve(g_s), s	2.9	10.4	10.4	4.7	4.6	4.6	3.3	1.9	2.1	1.7	4.7	4.8
Cycle Q Clear(g_c), s	7.5	10.4	10.4	15.2	4.6	4.6	8.2	1.9	2.1	3.8	4.7	4.8
Prop In Lane	1.00		0.33	1.00		0.12	1.00		0.52	1.00		0.36
Lane Grp Cap(c), veh/h	559	1222	1212	342	1222	1259	227	333	319	296	333	329
V/C Ratio(X)	0.14	0.50	0.50	0.17	0.27	0.27	0.25	0.19	0.21	0.12	0.44	0.45
Avail Cap(c_a), veh/h	559	1222	1212	342	1222	1259	484	777	744	593	777	767
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.3	4.7	4.8	8.4	3.8	3.8	26.7	21.9	22.0	23.6	23.0	23.1
Incr Delay (d2), s/veh	0.5	1.4	1.5	1.1	0.5	0.5	0.6	0.3	0.3	0.2	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.5	2.5	0.5	1.1	1.1	0.8	0.8	0.8	0.4	1.9	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.8	6.2	6.2	9.5	4.4	4.4	27.3	22.2	22.3	23.7	23.9	24.1
LnGrp LOS	A	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		1287			732			186			331	
Approach Delay, s/veh		6.2			4.8			23.8			24.0	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.0		48.0		16.0		48.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		28.0		44.0		28.0		44.0				
Max Q Clear Time (g_c+I1), s		10.2		12.4		6.8		17.2				
Green Ext Time (p_c), s		0.8		10.2		1.6		5.1				
Intersection Summary												
HCM 6th Ctrl Delay				9.4								
HCM 6th LOS				A								

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	0	42	8	0	5	23	162	20	9	233	13
Future Vol, veh/h	13	0	42	8	0	5	23	162	20	9	233	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	44	8	0	5	24	171	21	9	245	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	404	510	130	371	507	96	259	0	0	192	0	0
Stage 1	270	270	-	230	230	-	-	-	-	-	-	-
Stage 2	134	240	-	141	277	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	531	465	896	561	467	942	1303	-	-	1379	-	-
Stage 1	713	685	-	752	713	-	-	-	-	-	-	-
Stage 2	855	706	-	847	680	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	517	452	896	522	453	942	1303	-	-	1379	-	-
Mov Cap-2 Maneuver	517	452	-	522	453	-	-	-	-	-	-	-
Stage 1	698	680	-	736	698	-	-	-	-	-	-	-
Stage 2	832	691	-	799	675	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.1		10.8		1		0.3	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1303	-	-	764	630	1379	-	-
HCM Lane V/C Ratio	0.019	-	-	0.076	0.022	0.007	-	-
HCM Control Delay (s)	7.8	0.1	-	10.1	10.8	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	
Traffic Vol, veh/h	0	1530	647	24	0	38
Future Vol, veh/h	0	1530	647	24	0	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1611	681	25	0	40

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	706	0	-	0	1500 353
Stage 1	-	-	-	-	694 -
Stage 2	-	-	-	-	806 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	888	-	-	-	113 643
Stage 1	-	-	-	-	457 -
Stage 2	-	-	-	-	400 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	888	-	-	-	113 643
Mov Cap-2 Maneuver	-	-	-	-	246 -
Stage 1	-	-	-	-	457 -
Stage 2	-	-	-	-	400 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	888	-	-	-	643
HCM Lane V/C Ratio	-	-	-	-	0.062
HCM Control Delay (s)	0	-	-	-	11
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	
Traffic Vol, veh/h	1530	0	0	671	0	0
Future Vol, veh/h	1530	0	0	671	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	30	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1611	0	0	706	0	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1611	0	1964
Stage 1	-	-	-	-	1611
Stage 2	-	-	-	-	353
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	401	-	55
Stage 1	-	-	-	-	149
Stage 2	-	-	-	-	682
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	401	-	55
Mov Cap-2 Maneuver	-	-	-	-	125
Stage 1	-	-	-	-	149
Stage 2	-	-	-	-	682

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	401	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	25	0	7	0	0	0	7	49	0	0	221	12
Future Vol, veh/h	25	0	7	0	0	0	7	49	0	0	221	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	0	7	0	0	0	7	52	0	0	233	13

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	280	306	123	183	312	26	246	0	-	-	-	0
Stage 1	240	240	-	66	66	-	-	-	-	-	-	-
Stage 2	40	66	-	117	246	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	-	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	-	-	-
Pot Cap-1 Maneuver	650	606	905	761	602	1044	1317	-	0	0	-	-
Stage 1	742	706	-	937	839	-	-	-	0	0	-	-
Stage 2	970	839	-	875	701	-	-	-	0	0	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	647	603	905	752	599	1044	1317	-	-	-	-	-
Mov Cap-2 Maneuver	655	616	-	748	609	-	-	-	-	-	-	-
Stage 1	738	706	-	932	835	-	-	-	-	-	-	-
Stage 2	965	835	-	868	701	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.4		0		1		0	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	EBLn1WBLn1	SBT	SBR
Capacity (veh/h)	1317	-	697	-	-
HCM Lane V/C Ratio	0.006	-	0.048	-	-
HCM Control Delay (s)	7.7	0	10.4	0	-
HCM Lane LOS	A	A	B	A	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕				↗		↕	
Traffic Vol, veh/h	35	1597	26	13	660	56	0	0	24	34	0	41
Future Vol, veh/h	35	1597	26	13	660	56	0	0	24	34	0	41
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	50	-	-	30	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	37	1681	27	14	695	59	0	0	25	36	0	43

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	754	0	0	1708	0	0	-	-	854	1668	2535	377
Stage 1	-	-	-	-	-	-	-	-	-	753	753	-
Stage 2	-	-	-	-	-	-	-	-	-	915	1782	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	852	-	-	368	-	-	0	0	302	63	27	621
Stage 1	-	-	-	-	-	-	0	0	-	368	416	-
Stage 2	-	-	-	-	-	-	0	0	-	294	133	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	852	-	-	368	-	-	-	-	302	54	25	621
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	155	88	-
Stage 1	-	-	-	-	-	-	-	-	-	352	400	-
Stage 2	-	-	-	-	-	-	-	-	-	258	127	-





















Approach	EB		WB		NB		SB	
HCM Control Delay, s	0.2		0.3		18		24.5	
HCM LOS					C		C	

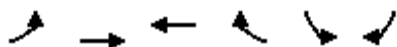
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	302	852	-	-	368	-	-	263
HCM Lane V/C Ratio	0.084	0.043	-	-	0.037	-	-	0.3
HCM Control Delay (s)	18	9.4	-	-	15.2	-	-	24.5
HCM Lane LOS	C	A	-	-	C	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-	-	1.2

Gateway Downtown San Bernardino
1: Mt. Vernon Ave. & 5th St.

Horizon Year 2040 + Project PM

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	591	124	85	633	171	140	660	112	127	423	93
Future Volume (veh/h)	109	591	124	85	633	171	140	660	112	127	423	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	115	622	131	89	666	180	147	695	118	134	445	98
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	136	1043	219	112	950	256	347	1253	213	249	1195	261
Arrive On Green	0.08	0.36	0.36	0.07	0.34	0.34	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1688	2910	612	1688	2763	746	817	3030	514	636	2890	631
Grp Volume(v), veh/h	115	379	374	89	428	418	147	407	406	134	272	271
Grp Sat Flow(s),veh/h/ln	1688	1777	1745	1688	1777	1732	817	1777	1768	636	1777	1745
Q Serve(g_s), s	5.0	12.9	13.0	3.9	15.5	15.5	11.3	12.9	13.0	15.1	7.9	8.0
Cycle Q Clear(g_c), s	5.0	12.9	13.0	3.9	15.5	15.5	19.3	12.9	13.0	28.0	7.9	8.0
Prop In Lane	1.00		0.35	1.00		0.43	1.00		0.29	1.00		0.36
Lane Grp Cap(c), veh/h	136	637	625	112	611	595	347	735	731	249	735	722
V/C Ratio(X)	0.84	0.60	0.60	0.79	0.70	0.70	0.42	0.55	0.55	0.54	0.37	0.38
Avail Cap(c_a), veh/h	136	637	625	136	611	595	356	755	751	256	755	741
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	19.4	19.4	34.1	21.0	21.1	21.8	16.5	16.6	27.2	15.1	15.1
Incr Delay (d2), s/veh	35.4	4.1	4.2	22.7	6.6	6.8	0.8	0.8	0.9	2.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	5.5	5.4	2.2	6.9	6.7	2.0	4.8	4.8	2.2	2.9	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.0	23.5	23.6	56.8	27.6	27.8	22.6	17.4	17.4	29.3	15.4	15.4
LnGrp LOS	E	C	C	E	C	C	C	B	B	C	B	B
Approach Vol, veh/h		868			935			960			677	
Approach Delay, s/veh		29.6			30.5			18.2			18.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		34.7	8.9	30.6		34.7	10.0	29.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		31.5	6.0	25.5		31.5	6.0	25.5				
Max Q Clear Time (g_c+I1), s		21.3	5.9	15.0		30.0	7.0	17.5				
Green Ext Time (p_c), s		4.1	0.0	3.3		0.6	0.0	3.1				
Intersection Summary												
HCM 6th Ctrl Delay			24.4									
HCM 6th LOS			C									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	14	915	1004	134	94	7
Future Volume (veh/h)	14	915	1004	134	94	7
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1870	1772	1772
Adj Flow Rate, veh/h	15	963	1057	141	99	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	412	2888	2561	341	128	9
Arrive On Green	0.81	0.81	0.81	0.81	0.08	0.08
Sat Flow, veh/h	442	3647	3245	420	1550	110
Grp Volume(v), veh/h	15	963	595	603	107	0
Grp Sat Flow(s),veh/h/ln	442	1777	1777	1794	1675	0
Q Serve(g_s), s	0.8	5.3	7.2	7.2	4.8	0.0
Cycle Q Clear(g_c), s	8.0	5.3	7.2	7.2	4.8	0.0
Prop In Lane	1.00			0.23	0.93	0.07
Lane Grp Cap(c), veh/h	412	2888	1444	1458	138	0
V/C Ratio(X)	0.04	0.33	0.41	0.41	0.77	0.00
Avail Cap(c_a), veh/h	412	2888	1444	1458	659	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	3.1	1.8	2.0	2.0	34.3	0.0
Incr Delay (d2), s/veh	0.2	0.3	0.9	0.9	8.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.5	0.9	0.9	2.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.3	2.1	2.9	2.9	43.2	0.0
LnGrp LOS	A	A	A	A	D	A
Approach Vol, veh/h		978	1198		107	
Approach Delay, s/veh		2.2	2.9		43.2	
Approach LOS		A	A		D	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				66.0	10.3	66.0
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				62.0	30.0	62.0
Max Q Clear Time (g_c+I1), s				10.0	6.8	9.2
Green Ext Time (p_c), s				8.4	0.2	10.0
Intersection Summary						
HCM 6th Ctrl Delay			4.5			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

Gateway Downtown San Bernardino
3: I-215 SB Ramps & 5th St.

Horizon Year 2040 + Project PM

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑		↔↔	↑↑					↔	↔	↔
Traffic Volume (veh/h)	0	677	353	620	974	0	0	0	0	335	6	189
Future Volume (veh/h)	0	677	353	620	974	0	0	0	0	335	6	189
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No		No						No		
Adj Sat Flow, veh/h/ln	0	1870	1870	1673	1870	0				1772	1772	1870
Adj Flow Rate, veh/h	0	713	372	653	1025	0				417	0	135
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	2231	733	721	2632	0				500	0	235
Arrive On Green	0.00	0.46	0.46	0.31	0.99	0.00				0.15	0.00	0.15
Sat Flow, veh/h	0	5087	1585	3092	3647	0				3375	0	1582
Grp Volume(v), veh/h	0	713	372	653	1025	0				417	0	135
Grp Sat Flow(s),veh/h/ln	0	1609	1585	1546	1777	0				1688	0	1582
Q Serve(g_s), s	0.0	9.3	16.5	20.3	0.7	0.0				12.0	0.0	7.9
Cycle Q Clear(g_c), s	0.0	9.3	16.5	20.3	0.7	0.0				12.0	0.0	7.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2231	733	721	2632	0				500	0	235
V/C Ratio(X)	0.00	0.32	0.51	0.91	0.39	0.00				0.83	0.00	0.58
Avail Cap(c_a), veh/h	0	2231	733	1036	2632	0				817	0	383
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.94	0.94	0.82	0.82	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.0	18.9	33.4	0.2	0.0				41.4	0.0	39.7
Incr Delay (d2), s/veh	0.0	0.4	2.4	5.5	0.4	0.0				1.8	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.3	6.1	7.2	0.2	0.0				5.0	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.3	21.2	39.0	0.6	0.0				43.1	0.0	40.5
LnGrp LOS	A	B	C	D	A	A				D	A	D
Approach Vol, veh/h		1085			1678						552	
Approach Delay, s/veh		18.7			15.5						42.5	
Approach LOS		B			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	27.8	51.5		20.6		79.4						
Change Period (Y+Rc), s	4.5	5.3		5.8		5.3						
Max Green Setting (Gmax), s	33.5	26.7		24.2		64.7						
Max Q Clear Time (g_c+Q), s	22.3	18.5		14.0		2.7						
Green Ext Time (p_c), s	1.1	3.2		0.8		5.2						
Intersection Summary												
HCM 6th Ctrl Delay				21.0								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

Horizon Year 2040 + Project PM

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑	↔	↔	↔	↔			
Traffic Volume (veh/h)	392	954	0	0	1076	744	549	3	483	0	0	0
Future Volume (veh/h)	392	954	0	0	1076	744	549	3	483	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1673	1870	0	0	1870	1870	1772	1772	1870			
Adj Flow Rate, veh/h	413	1004	0	0	1133	783	737	0	340			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	469	2282	0	0	2834	694	833	0	388			
Arrive On Green	0.15	0.64	0.00	0.00	0.44	0.44	0.25	0.00	0.25			
Sat Flow, veh/h	3092	3647	0	0	6696	1576	3375	0	1572			
Grp Volume(v), veh/h	413	1004	0	0	1133	783	737	0	340			
Grp Sat Flow(s),veh/h/ln	1546	1777	0	0	1609	1576	1688	0	1572			
Q Serve(g_s), s	13.1	14.1	0.0	0.0	12.0	44.0	21.0	0.0	20.8			
Cycle Q Clear(g_c), s	13.1	14.1	0.0	0.0	12.0	44.0	21.0	0.0	20.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	469	2282	0	0	2834	694	833	0	388			
V/C Ratio(X)	0.88	0.44	0.00	0.00	0.40	1.13	0.89	0.00	0.88			
Avail Cap(c_a), veh/h	495	2282	0	0	2834	694	1053	0	490			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.88	0.88	0.00	0.00	0.40	0.40	1.00	0.00	1.00			
Uniform Delay (d), s/veh	41.5	8.9	0.0	0.0	19.0	28.0	36.3	0.0	36.2			
Incr Delay (d2), s/veh	13.7	0.5	0.0	0.0	0.2	65.5	6.6	0.0	11.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.7	4.8	0.0	0.0	4.2	27.8	9.1	0.0	8.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.3	9.5	0.0	0.0	19.2	93.4	42.9	0.0	48.1			
LnGrp LOS	E	A	A	A	B	F	D	A	D			
Approach Vol, veh/h		1417			1916			1077				
Approach Delay, s/veh		22.8			49.5			44.5				
Approach LOS		C			D			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		69.5			20.2	49.3		30.5				
Change Period (Y+Rc), s		5.3			5.0	5.3		5.8				
Max Green Setting (Gmax), s		57.7			16.0	36.7		31.2				
Max Q Clear Time (g_c+I1), s		16.1			15.1	46.0		23.0				
Green Ext Time (p_c), s		5.0			0.1	0.0		1.6				

Intersection Summary

HCM 6th Ctrl Delay	39.7
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Gateway Downtown San Bernardino
5: H St. & 5th St.

Horizon Year 2040 + Project PM

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	986	100	8	1229	50	247	200	55	27	93	363
Future Volume (veh/h)	234	986	100	8	1229	50	247	200	55	27	93	363
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	246	1038	105	8	1294	53	260	211	58	28	98	382
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	246	1865	919	17	1353	55	367	722	194	360	893	622
Arrive On Green	0.15	0.52	0.52	0.01	0.39	0.39	0.06	0.26	0.26	0.05	0.25	0.25
Sat Flow, veh/h	1688	3554	1575	1688	3479	142	1688	2767	742	1688	3554	1555
Grp Volume(v), veh/h	246	1038	105	8	660	687	260	134	135	28	98	382
Grp Sat Flow(s),veh/h/ln	1688	1777	1575	1688	1777	1844	1688	1777	1732	1688	1777	1555
Q Serve(g_s), s	15.0	20.2	3.1	0.5	37.1	37.3	6.0	6.2	6.4	1.2	2.2	20.2
Cycle Q Clear(g_c), s	15.0	20.2	3.1	0.5	37.1	37.3	6.0	6.2	6.4	1.2	2.2	20.2
Prop In Lane	1.00		1.00	1.00		0.08	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	246	1865	919	17	691	717	367	464	452	360	893	622
V/C Ratio(X)	1.00	0.56	0.11	0.48	0.96	0.96	0.71	0.29	0.30	0.08	0.11	0.61
Avail Cap(c_a), veh/h	246	1865	919	98	691	717	367	657	640	376	1313	806
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	16.4	9.6	50.6	30.5	30.6	31.9	30.4	30.5	25.8	29.6	24.8
Incr Delay (d2), s/veh	57.2	1.2	0.3	19.6	24.9	24.6	6.2	0.3	0.4	0.1	0.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.8	1.0	0.3	19.6	20.3	3.5	2.6	2.7	0.5	0.9	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.1	17.6	9.8	70.2	55.4	55.2	38.1	30.7	30.8	25.9	29.7	25.8
LnGrp LOS	F	B	A	E	E	E	D	C	C	C	C	C
Approach Vol, veh/h		1389			1355			529			508	
Approach Delay, s/veh		31.8			55.4			34.4			26.5	
Approach LOS		C			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	30.8	5.0	58.0	10.0	29.8	19.0	44.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	38.0	6.0	49.0	6.0	38.0	15.0	40.0				
Max Q Clear Time (g_c+1), s	13.2	8.4	2.5	22.2	8.0	22.2	17.0	39.3				
Green Ext Time (p_c), s	0.0	1.5	0.0	8.3	0.0	1.7	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay				39.9								
HCM 6th LOS				D								

Gateway Downtown San Bernardino
6: G St. & 5th St.

Horizon Year 2040 + Project PM

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	888	47	20	1250	142	64	174	41	114	124	99
Future Volume (veh/h)	101	888	47	20	1250	142	64	174	41	114	124	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1772	1870	1772	1772	1870
Adj Flow Rate, veh/h	106	935	49	21	1316	149	67	183	43	120	131	104
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	229	2327	122	376	2181	246	141	393	101	195	224	198
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	343	3433	180	541	3218	362	357	1639	422	552	931	824
Grp Volume(v), veh/h	106	484	500	21	724	741	138	0	155	172	0	183
Grp Sat Flow(s),veh/h/ln	343	1777	1836	541	1777	1803	892	0	1527	856	0	1452
Q Serve(g_s), s	23.8	11.7	11.7	1.7	21.6	21.9	6.5	0.0	8.4	11.9	0.0	10.7
Cycle Q Clear(g_c), s	45.7	11.7	11.7	13.5	21.6	21.9	17.2	0.0	8.4	20.3	0.0	10.7
Prop In Lane	1.00		0.10	1.00		0.20	0.49		0.28	0.70		0.57
Lane Grp Cap(c), veh/h	229	1204	1245	376	1204	1222	269	0	366	268	0	348
V/C Ratio(X)	0.46	0.40	0.40	0.06	0.60	0.61	0.51	0.00	0.42	0.64	0.00	0.53
Avail Cap(c_a), veh/h	229	1204	1245	376	1204	1222	305	0	408	302	0	388
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	6.9	6.9	9.9	8.5	8.6	36.1	0.0	31.3	38.6	0.0	32.2
Incr Delay (d2), s/veh	6.6	1.0	1.0	0.3	2.2	2.2	1.5	0.0	0.8	3.8	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.9	4.0	0.2	7.3	7.5	3.1	0.0	3.1	4.1	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.7	7.9	7.9	10.2	10.7	10.8	37.6	0.0	32.1	42.4	0.0	33.4
LnGrp LOS	C	A	A	B	B	B	D	A	C	D	A	C
Approach Vol, veh/h		1090			1486			293			355	
Approach Delay, s/veh		9.8			10.8			34.7			37.8	
Approach LOS		A			B			C			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		27.4		70.0		27.4		70.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		66.0		26.0		66.0				
Max Q Clear Time (g_c+I1), s		19.2		47.7		22.3		23.9				
Green Ext Time (p_c), s		0.9		7.8		0.7		14.1				
Intersection Summary												
HCM 6th Ctrl Delay				15.6								
HCM 6th LOS				B								

Gateway Downtown San Bernardino
7: F St. & 5th St.

Horizon Year 2040 + Project PM

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	807	36	17	1233	104	29	139	31	56	113	193
Future Volume (veh/h)	248	807	36	17	1233	104	29	139	31	56	113	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1772	1870	1772	1772	1870
Adj Flow Rate, veh/h	261	849	38	18	1298	109	31	146	33	59	119	203
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	2497	112	450	2392	200	75	332	82	113	192	260
Arrive On Green	0.72	0.72	0.72	0.72	0.72	0.72	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	362	3464	155	593	3319	278	124	1706	422	321	985	1338
Grp Volume(v), veh/h	261	435	452	18	693	714	91	0	119	178	0	203
Grp Sat Flow(s),veh/h/ln	362	1777	1842	593	1777	1820	728	0	1524	1306	0	1338
Q Serve(g_s), s	51.0	8.6	8.6	1.1	16.9	17.0	1.1	0.0	6.4	6.5	0.0	13.6
Cycle Q Clear(g_c), s	68.0	8.6	8.6	9.6	16.9	17.0	14.7	0.0	6.4	12.9	0.0	13.6
Prop In Lane	1.00		0.08	1.00		0.15	0.34		0.28	0.33		1.00
Lane Grp Cap(c), veh/h	272	1281	1328	450	1281	1311	193	0	296	305	0	260
V/C Ratio(X)	0.96	0.34	0.34	0.04	0.54	0.54	0.47	0.00	0.40	0.58	0.00	0.78
Avail Cap(c_a), veh/h	272	1281	1328	450	1281	1311	277	0	388	394	0	340
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.0	4.9	4.9	6.7	6.0	6.1	33.5	0.0	33.2	35.9	0.0	36.1
Incr Delay (d2), s/veh	45.0	0.7	0.7	0.2	1.6	1.6	1.8	0.0	0.9	1.8	0.0	8.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.5	2.6	0.1	5.1	5.3	1.8	0.0	2.4	3.9	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.0	5.6	5.6	6.8	7.7	7.7	35.3	0.0	34.1	37.7	0.0	44.4
LnGrp LOS	E	A	A	A	A	A	D	A	C	D	A	D
Approach Vol, veh/h		1148			1425			210			381	
Approach Delay, s/veh		20.9			7.7			34.6			41.3	
Approach LOS		C			A			C			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.3		72.0		22.3		72.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		24.0		68.0		24.0		68.0				
Max Q Clear Time (g_c+I1), s		16.7		70.0		15.6		19.0				
Green Ext Time (p_c), s		0.6		0.0		1.4		13.4				
Intersection Summary												
HCM 6th Ctrl Delay				18.3								
HCM 6th LOS				B								

Gateway Downtown San Bernardino
8: E St. & 5th St.

Horizon Year 2040 + Project PM

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	767	54	46	1135	19	89	319	42	39	192	58
Future Volume (veh/h)	41	767	54	46	1135	19	89	319	42	39	192	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	43	807	57	48	1195	20	94	336	44	41	202	61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	236	1887	133	344	2008	34	161	412	54	62	270	81
Arrive On Green	0.56	0.56	0.56	0.56	0.56	0.56	0.10	0.25	0.25	0.04	0.20	0.20
Sat Flow, veh/h	435	3360	237	606	3576	60	1688	1615	212	1688	1373	414
Grp Volume(v), veh/h	43	427	437	48	594	621	94	0	380	41	0	263
Grp Sat Flow(s),veh/h/ln	435	1777	1821	606	1777	1859	1688	0	1827	1688	0	1787
Q Serve(g_s), s	5.9	11.3	11.4	4.1	18.0	18.0	4.4	0.0	16.0	2.0	0.0	11.4
Cycle Q Clear(g_c), s	24.0	11.3	11.4	15.4	18.0	18.0	4.4	0.0	16.0	2.0	0.0	11.4
Prop In Lane	1.00		0.13	1.00		0.03	1.00		0.12	1.00		0.23
Lane Grp Cap(c), veh/h	236	998	1023	344	998	1044	161	0	466	62	0	351
V/C Ratio(X)	0.18	0.43	0.43	0.14	0.60	0.60	0.58	0.00	0.82	0.66	0.00	0.75
Avail Cap(c_a), veh/h	236	998	1023	344	998	1044	206	0	781	144	0	698
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.7	10.4	10.4	14.8	11.8	11.8	35.5	0.0	28.7	38.9	0.0	31.0
Incr Delay (d2), s/veh	1.7	1.3	1.3	0.8	2.6	2.5	3.3	0.0	3.5	11.1	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.1	4.2	0.6	6.6	6.9	1.9	0.0	7.0	1.0	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.4	11.7	11.7	15.7	14.4	14.3	38.8	0.0	32.3	50.0	0.0	34.2
LnGrp LOS	C	B	B	B	B	B	D	A	C	D	A	C
Approach Vol, veh/h		907			1263			474			304	
Approach Delay, s/veh		12.1			14.4			33.6			36.4	
Approach LOS		B			B			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	24.9		50.0	11.8	20.1		50.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	35.0	35.0		46.0	10.0	32.0		46.0				
Max Q Clear Time (g_c+14), s	18.0	18.0		26.0	6.4	13.4		20.0				
Green Ext Time (p_c), s	0.0	2.0		5.8	0.1	1.3		9.3				
Intersection Summary												
HCM 6th Ctrl Delay											19.1	
HCM 6th LOS											B	

Gateway Downtown San Bernardino
9: D St. & 5th St.

Horizon Year 2040 + Project PM

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	759	55	33	987	56	130	165	25	40	118	97
Future Volume (veh/h)	79	759	55	33	987	56	130	165	25	40	118	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	83	799	58	35	1039	59	137	174	26	42	124	102
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	343	2265	164	433	2306	131	272	719	105	289	444	334
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	486	3357	244	609	3418	194	1088	3097	454	1109	1913	1437
Grp Volume(v), veh/h	83	423	434	35	540	558	137	98	102	42	114	112
Grp Sat Flow(s),veh/h/ln	486	1777	1823	609	1777	1835	1088	1777	1774	1109	1777	1574
Q Serve(g_s), s	8.3	8.7	8.7	2.2	12.2	12.2	10.2	3.9	4.0	2.8	4.5	5.0
Cycle Q Clear(g_c), s	20.5	8.7	8.7	11.0	12.2	12.2	15.3	3.9	4.0	6.8	4.5	5.0
Prop In Lane	1.00		0.13	1.00		0.11	1.00		0.26	1.00		0.91
Lane Grp Cap(c), veh/h	343	1199	1231	433	1199	1238	272	412	412	289	412	365
V/C Ratio(X)	0.24	0.35	0.35	0.08	0.45	0.45	0.50	0.24	0.25	0.15	0.28	0.31
Avail Cap(c_a), veh/h	343	1199	1231	433	1199	1238	450	703	702	471	703	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.3	6.0	6.0	8.3	6.5	6.5	33.6	26.8	26.9	29.6	27.1	27.3
Incr Delay (d2), s/veh	1.7	0.8	0.8	0.4	1.2	1.2	1.4	0.3	0.3	0.2	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.7	2.8	0.3	3.8	3.9	2.7	1.6	1.6	0.7	1.9	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.0	6.8	6.8	8.7	7.8	7.7	35.0	27.1	27.2	29.9	27.4	27.7
LnGrp LOS	B	A	A	A	A	A	D	C	C	C	C	C
Approach Vol, veh/h		940			1133			337			268	
Approach Delay, s/veh		7.3			7.8			30.4			27.9	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.9		62.0		23.9		62.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		34.0		58.0		34.0		58.0				
Max Q Clear Time (g_c+I1), s		17.3		22.5		8.8		14.2				
Green Ext Time (p_c), s		1.4		7.2		1.4		9.0				
Intersection Summary												
HCM 6th Ctrl Delay				12.5								
HCM 6th LOS				B								

Gateway Downtown San Bernardino
10: Arrowhead Ave. & 5th St.

Horizon Year 2040 + Project PM

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	721	56	45	893	49	113	402	99	26	157	63
Future Volume (veh/h)	70	721	56	45	893	49	113	402	99	26	157	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1772	1870	1870	1772	1870	1870	1772	1870	1870	1772	1870	1870
Adj Flow Rate, veh/h	74	759	59	47	940	52	119	423	104	27	165	66
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	376	2216	172	445	2273	126	285	674	164	172	597	228
Arrive On Green	0.66	0.66	0.66	0.66	0.66	0.66	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	538	3337	259	633	3423	189	1083	2816	685	827	2496	955
Grp Volume(v), veh/h	74	404	414	47	488	504	119	265	262	27	115	116
Grp Sat Flow(s),veh/h/ln	538	1777	1820	633	1777	1836	1083	1777	1725	827	1777	1674
Q Serve(g_s), s	6.1	8.2	8.2	2.9	10.5	10.5	8.4	11.1	11.3	2.5	4.4	4.7
Cycle Q Clear(g_c), s	16.7	8.2	8.2	11.1	10.5	10.5	13.0	11.1	11.3	13.8	4.4	4.7
Prop In Lane	1.00		0.14	1.00		0.10	1.00		0.40	1.00		0.57
Lane Grp Cap(c), veh/h	376	1180	1208	445	1180	1219	285	425	413	172	425	400
V/C Ratio(X)	0.20	0.34	0.34	0.11	0.41	0.41	0.42	0.62	0.63	0.16	0.27	0.29
Avail Cap(c_a), veh/h	376	1180	1208	445	1180	1219	510	794	771	344	794	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.3	6.0	6.0	8.5	6.4	6.4	31.1	28.2	28.2	34.4	25.6	25.7
Incr Delay (d2), s/veh	1.2	0.8	0.8	0.5	1.1	1.0	1.0	1.5	1.6	0.4	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.5	2.6	0.4	3.3	3.4	2.1	4.6	4.5	0.5	1.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	6.8	6.8	8.9	7.5	7.5	32.0	29.7	29.9	34.8	26.0	26.1
LnGrp LOS	B	A	A	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		892			1039			646			258	
Approach Delay, s/veh		7.2			7.6			30.2			27.0	
Approach LOS		A			A			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.8		59.0		23.8		59.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		37.0		55.0		37.0		55.0				
Max Q Clear Time (g_c+I1), s		15.0		18.7		15.8		13.1				
Green Ext Time (p_c), s		3.5		6.6		1.3		7.8				
Intersection Summary												
HCM 6th Ctrl Delay				14.4								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	16	0	43	2	0	2	23	387	14	8	298	13
Future Vol, veh/h	16	0	43	2	0	2	23	387	14	8	298	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	0	45	2	0	2	24	407	15	8	314	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	589	807	164	636	807	211	328	0	0	422	0	0
Stage 1	337	337	-	463	463	-	-	-	-	-	-	-
Stage 2	252	470	-	173	344	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	392	314	852	363	314	794	1228	-	-	1134	-	-
Stage 1	651	640	-	548	562	-	-	-	-	-	-	-
Stage 2	730	558	-	812	635	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	381	303	852	335	303	794	1228	-	-	1134	-	-
Mov Cap-2 Maneuver	381	303	-	335	303	-	-	-	-	-	-	-
Stage 1	634	634	-	534	547	-	-	-	-	-	-	-
Stage 2	709	543	-	762	629	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.3		12.7		0.5		0.2	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1228	-	-	638	471	1134	-
HCM Lane V/C Ratio	0.02	-	-	0.097	0.009	0.007	-
HCM Control Delay (s)	8	0.1	-	11.3	12.7	8.2	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	
Traffic Vol, veh/h	0	1043	1384	18	0	28
Future Vol, veh/h	0	1043	1384	18	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1098	1457	19	0	29

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1476	0	-	0	2016 738
Stage 1	-	-	-	-	1467 -
Stage 2	-	-	-	-	549 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	452	-	-	-	51 360
Stage 1	-	-	-	-	178 -
Stage 2	-	-	-	-	542 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	452	-	-	-	51 360
Mov Cap-2 Maneuver	-	-	-	-	139 -
Stage 1	-	-	-	-	178 -
Stage 2	-	-	-	-	542 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	452	-	-	-	360
HCM Lane V/C Ratio	-	-	-	-	0.082
HCM Control Delay (s)	0	-	-	-	15.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↓	
Traffic Vol, veh/h	1030	13	12	1396	6	6
Future Vol, veh/h	1030	13	12	1396	6	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1084	14	13	1469	6	6

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1098	0	1852
Stage 1	-	-	-	-	1091
Stage 2	-	-	-	-	761
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	631	-	66
Stage 1	-	-	-	-	283
Stage 2	-	-	-	-	422
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	631	-	59
Mov Cap-2 Maneuver	-	-	-	-	174
Stage 1	-	-	-	-	283
Stage 2	-	-	-	-	375

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	19.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	255	-	-	631	-
HCM Lane V/C Ratio	0.05	-	-	0.02	-
HCM Control Delay (s)	19.9	-	-	10.8	0.6
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	0	7	4	0	10	7	250	0	0	182	10
Future Vol, veh/h	20	0	7	4	0	10	7	250	0	0	182	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	0	7	4	0	11	7	263	0	0	192	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	344	475	102	373	480	132	203	0	-	-	-	0
Stage 1	198	198	-	277	277	-	-	-	-	-	-	-
Stage 2	146	277	-	96	203	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	-	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	-	-	-
Pot Cap-1 Maneuver	586	487	933	559	484	893	1366	-	0	0	-	-
Stage 1	785	736	-	706	680	-	-	-	0	0	-	-
Stage 2	842	680	-	900	732	-	-	-	0	0	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	577	484	933	552	481	893	1366	-	-	-	-	-
Mov Cap-2 Maneuver	629	541	-	598	538	-	-	-	-	-	-	-
Stage 1	780	736	-	702	676	-	-	-	-	-	-	-
Stage 2	827	676	-	893	732	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	9.7	0.2	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1WBLn1	SBT	SBR
Capacity (veh/h)	1366	-	687	783	-
HCM Lane V/C Ratio	0.005	-	0.041	0.019	-
HCM Control Delay (s)	7.7	0	10.5	9.7	-
HCM Lane LOS	A	A	B	A	-
HCM 95th %tile Q(veh)	0	-	0.1	0.1	-

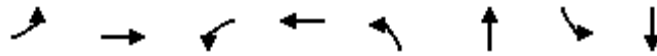
Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	
Traffic Vol, veh/h	33	915	89	28	1383	54	0	0	41	30	0	38
Future Vol, veh/h	33	915	89	28	1383	54	0	0	41	30	0	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	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	50	-	-	30	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	963	94	29	1456	57	0	0	43	32	0	40

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1513	0	0	1057	0	0	1866	2651	529	2095	2670	757
Stage 1	-	-	-	-	-	-	1080	1080	-	1543	1543	-
Stage 2	-	-	-	-	-	-	786	1571	-	552	1127	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	438	-	-	655	-	-	45	23	494	~ 30	22	350
Stage 1	-	-	-	-	-	-	233	293	-	120	175	-
Stage 2	-	-	-	-	-	-	351	169	-	486	278	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	438	-	-	655	-	-	36	20	494	~ 25	19	350
Mov Cap-2 Maneuver	-	-	-	-	-	-	36	20	-	85	96	-
Stage 1	-	-	-	-	-	-	214	270	-	110	167	-
Stage 2	-	-	-	-	-	-	297	162	-	408	256	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.2			13			50.8		
HCM LOS							B			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	494	438	-	-	655	-	-	147
HCM Lane V/C Ratio	0.087	0.079	-	-	0.045	-	-	0.487
HCM Control Delay (s)	13	13.9	-	-	10.8	-	-	50.8
HCM Lane LOS	B	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.3	0.3	-	-	0.1	-	-	2.3

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

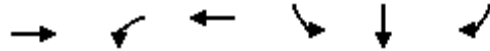


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	74	725	59	564	76	386	138	610
v/c Ratio	0.40	0.48	0.32	0.38	0.51	0.38	0.57	0.60
Control Delay	34.4	14.0	32.6	13.2	30.8	16.4	28.2	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.4	14.0	32.6	13.2	30.8	16.4	28.2	19.6
Queue Length 50th (ft)	27	96	21	71	24	57	45	101
Queue Length 95th (ft)	69	174	58	132	64	90	97	146
Internal Link Dist (ft)		469		380		583		574
Turn Bay Length (ft)	150		95		95		85	
Base Capacity (vph)	197	1501	197	1504	225	1507	364	1507
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.48	0.30	0.38	0.34	0.26	0.38	0.40

Intersection Summary



Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	8	873	728	140
v/c Ratio	0.02	0.39	0.33	0.37
Control Delay	4.9	5.7	5.2	15.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	4.9	5.7	5.2	15.5
Queue Length 50th (ft)	1	48	37	26
Queue Length 95th (ft)	5	98	77	59
Internal Link Dist (ft)		331	707	240
Turn Bay Length (ft)	110			
Base Capacity (vph)	599	3241	3200	1228
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.01	0.27	0.23	0.11
Intersection Summary				



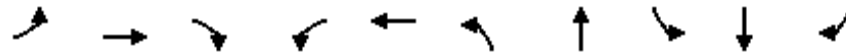
Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	943	373	503	368	372	169
v/c Ratio	0.42	0.78	0.26	0.79	0.83	0.32
Control Delay	23.0	67.4	11.6	46.1	49.9	5.0
Queue Delay	0.0	1.1	0.5	58.0	58.2	0.0
Total Delay	23.0	68.5	12.1	104.1	108.1	5.0
Queue Length 50th (ft)	115	146	73	247	263	0
Queue Length 95th (ft)	180	193	124	317	341	43
Internal Link Dist (ft)	707		191		566	
Turn Bay Length (ft)		160				215
Base Capacity (vph)	2278	572	1971	618	592	652
Starvation Cap Reductn	0	65	980	0	0	0
Spillback Cap Reductn	110	0	0	302	289	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.74	0.51	1.16	1.23	0.26
Intersection Summary						

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

Existing (2022) Conditions
Timing Plan: AM Peak



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	174	1126	647	214	240	329	326
v/c Ratio	0.60	0.57	0.24	0.27	0.53	0.80	0.68
Control Delay	63.8	25.0	21.3	4.7	34.1	46.2	31.8
Queue Delay	0.0	0.9	0.0	0.0	0.2	0.8	0.0
Total Delay	63.8	25.9	21.3	4.7	34.4	47.0	31.8
Queue Length 50th (ft)	67	275	79	0	147	217	166
Queue Length 95th (ft)	100	391	131	55	189	284	225
Internal Link Dist (ft)		191	282			601	
Turn Bay Length (ft)	180						385
Base Capacity (vph)	304	1991	2723	781	739	646	728
Starvation Cap Reductn	0	527	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	131	113	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.77	0.24	0.27	0.39	0.62	0.45
Intersection Summary							



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	119	1569	122	2	675	57	88	36	121	182
v/c Ratio	0.54	0.72	0.11	0.02	0.42	0.25	0.17	0.15	0.35	0.32
Control Delay	41.8	12.7	2.2	37.5	15.1	29.0	30.9	27.4	37.3	5.1
Queue Delay	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.8	21.8	2.2	37.5	15.1	29.0	30.9	27.4	37.3	5.1
Queue Length 50th (ft)	57	219	5	1	109	23	19	14	30	0
Queue Length 95th (ft)	111	455	28	8	177	57	43	40	58	43
Internal Link Dist (ft)		282			262		335		141	
Turn Bay Length (ft)	125		130	105		100		75		110
Base Capacity (vph)	314	2183	1086	117	1616	230	1560	237	1582	644
Starvation Cap Reductn	0	594	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.99	0.11	0.02	0.42	0.25	0.06	0.15	0.08	0.28

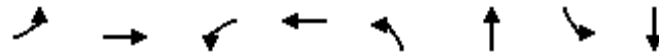
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	87	1511	11	617	34	171
v/c Ratio	0.17	0.60	0.06	0.25	0.10	0.46
Control Delay	3.6	5.1	3.6	2.9	22.8	21.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.6	5.1	3.6	2.9	22.8	21.1
Queue Length 50th (ft)	7	101	1	27	5	21
Queue Length 95th (ft)	22	180	5	51	16	46
Internal Link Dist (ft)		117		90	68	90
Turn Bay Length (ft)	95		100			
Base Capacity (vph)	524	2531	177	2513	1107	1066
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.60	0.06	0.25	0.03	0.16
Intersection Summary						

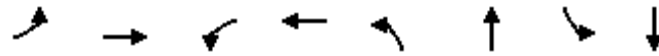


Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	70	1449	5	609	35	58
v/c Ratio	0.12	0.50	0.02	0.21	0.13	0.21
Control Delay	2.2	2.8	2.0	1.7	23.0	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.2	2.8	2.0	1.7	23.0	18.1
Queue Length 50th (ft)	5	76	0	22	5	6
Queue Length 95th (ft)	13	124	2	37	16	20
Internal Link Dist (ft)		221		604	288	289
Turn Bay Length (ft)	95		110			
Base Capacity (vph)	607	2910	241	2898	1106	1038
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.50	0.02	0.21	0.03	0.06
Intersection Summary						



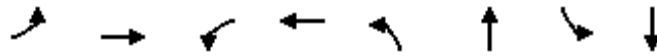
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	78	1340	31	586	9	135	34	182
v/c Ratio	0.18	0.65	0.23	0.29	0.06	0.43	0.20	0.48
Control Delay	9.0	11.3	14.1	7.2	26.9	23.1	27.6	22.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.0	11.3	14.1	7.2	26.9	23.1	27.6	22.3
Queue Length 50th (ft)	8	100	3	31	2	30	9	45
Queue Length 95th (ft)	43	317	28	105	16	87	37	112
Internal Link Dist (ft)		604		590		203		219
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	424	2049	136	2051	166	889	177	895
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.65	0.23	0.29	0.05	0.15	0.19	0.20

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	56	1192	30	629	25	69	25	125
v/c Ratio	0.10	0.45	0.10	0.24	0.19	0.18	0.18	0.31
Control Delay	2.9	3.5	3.4	2.5	27.0	20.2	26.5	21.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.9	3.5	3.4	2.5	27.0	20.2	26.5	21.5
Queue Length 50th (ft)	4	61	2	25	8	8	8	17
Queue Length 95th (ft)	13	104	9	45	27	24	27	38
Internal Link Dist (ft)		590		611		374		284
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	546	2640	290	2645	503	1469	533	1484
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.45	0.10	0.24	0.05	0.05	0.05	0.08

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	72	1099	61	667	47	130	27	244
v/c Ratio	0.15	0.47	0.22	0.28	0.31	0.25	0.16	0.47
Control Delay	4.1	4.5	5.6	3.5	28.3	18.1	24.2	23.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.1	4.5	5.6	3.5	28.3	18.1	24.2	23.7
Queue Length 50th (ft)	6	64	6	33	15	16	9	37
Queue Length 95th (ft)	20	110	21	59	42	36	28	66
Internal Link Dist (ft)		611		585		259		296
Turn Bay Length (ft)	100		100		80		50	
Base Capacity (vph)	473	2352	281	2389	467	1528	524	1554
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.47	0.22	0.28	0.10	0.09	0.05	0.16

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	112	709	61	799	143	725	121	528
v/c Ratio	0.64	0.48	0.37	0.59	0.70	0.65	0.93	0.48
Control Delay	50.0	15.7	36.1	17.9	40.3	20.7	89.1	17.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.0	15.7	36.1	17.9	40.3	20.7	89.1	17.1
Queue Length 50th (ft)	48	120	25	138	50	125	47	80
Queue Length 95th (ft)	#123	172	60	197	#132	178	#142	121
Internal Link Dist (ft)		469		380		583		574
Turn Bay Length (ft)	150		95		95		85	
Base Capacity (vph)	178	1469	178	1360	252	1363	161	1360
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.48	0.34	0.59	0.57	0.53	0.75	0.39

Intersection Summary

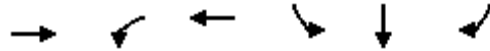
95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	12	873	1066	98
v/c Ratio	0.04	0.33	0.41	0.46
Control Delay	3.2	3.3	3.7	34.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	3.2	3.3	3.7	34.0
Queue Length 50th (ft)	1	49	64	38
Queue Length 95th (ft)	6	90	116	81
Internal Link Dist (ft)		331	707	240
Turn Bay Length (ft)	110			
Base Capacity (vph)	333	2661	2618	642
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.04	0.33	0.41	0.15
Intersection Summary				

Gateway Downtown San Bernardino
 3: I-215 SB Ramps & 5th St.

Existing Conditions
 Timing Plan: PM Peak



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	974	523	890	158	153	141
v/c Ratio	0.37	0.79	0.37	0.68	0.65	0.42
Control Delay	15.7	32.1	3.2	49.8	41.9	9.5
Queue Delay	0.0	0.3	0.1	0.6	0.5	0.0
Total Delay	15.7	32.3	3.4	50.3	42.4	9.5
Queue Length 50th (ft)	85	80	17	90	76	0
Queue Length 95th (ft)	141	97	73	146	135	48
Internal Link Dist (ft)	707		191		566	
Turn Bay Length (ft)		160				215
Base Capacity (vph)	2629	851	2419	370	361	453
Starvation Cap Reductn	0	56	559	0	0	0
Spillback Cap Reductn	9	0	0	51	48	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.66	0.48	0.50	0.49	0.31
Intersection Summary						

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

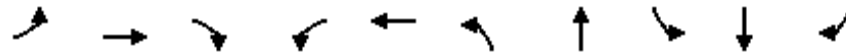
Existing Conditions
Timing Plan: PM Peak



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	226	667	1030	722	302	288	274
v/c Ratio	0.65	0.32	0.38	0.68	0.81	0.68	0.52
Control Delay	42.4	10.4	17.8	5.4	47.6	26.0	9.7
Queue Delay	0.0	1.3	0.0	0.4	0.0	0.0	0.0
Total Delay	42.4	11.8	17.8	5.8	47.6	26.0	9.7
Queue Length 50th (ft)	51	52	115	0	167	96	22
Queue Length 95th (ft)	#137	192	143	73	250	182	86
Internal Link Dist (ft)		191	282			601	
Turn Bay Length (ft)	180						385
Base Capacity (vph)	346	2097	2794	1066	468	498	601
Starvation Cap Reductn	0	1169	0	82	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.72	0.37	0.73	0.65	0.58	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	211	841	91	5	1243	231	225	23	85	345
v/c Ratio	0.82	0.39	0.08	0.04	0.83	1.00	0.38	0.10	0.22	0.81
Control Delay	58.5	8.7	1.9	34.6	25.4	92.1	26.4	22.5	31.4	35.2
Queue Delay	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.5	9.0	1.9	34.6	25.4	92.1	26.4	22.5	31.4	35.2
Queue Length 50th (ft)	95	78	1	2	255	96	38	8	19	116
Queue Length 95th (ft)	#227	193	19	13	#433	#238	80	25	39	203
Internal Link Dist (ft)		282			262		335		141	
Turn Bay Length (ft)	125		130	105		100		75		110
Base Capacity (vph)	258	2150	1085	129	1496	230	1693	228	1732	428
Starvation Cap Reductn	0	718	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.59	0.08	0.04	0.83	1.00	0.13	0.10	0.05	0.81

Intersection Summary

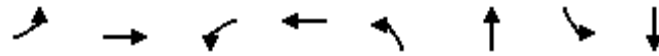
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	92	763	10	1242	138	282
v/c Ratio	0.38	0.31	0.02	0.51	0.32	0.63
Control Delay	9.8	3.9	3.5	5.1	26.6	26.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.8	3.9	3.5	5.1	26.6	26.5
Queue Length 50th (ft)	12	47	1	93	26	43
Queue Length 95th (ft)	49	87	6	170	51	81
Internal Link Dist (ft)		117		90	68	90
Turn Bay Length (ft)	95		100			
Base Capacity (vph)	243	2479	434	2455	1031	949
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.31	0.02	0.51	0.13	0.30
Intersection Summary						

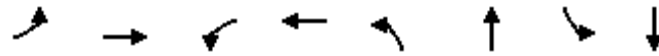


Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	64	774	18	1170	94	143
v/c Ratio	0.22	0.29	0.04	0.44	0.33	0.43
Control Delay	4.4	2.6	2.4	3.3	23.7	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.4	2.6	2.4	3.3	23.7	20.4
Queue Length 50th (ft)	5	34	1	61	13	15
Queue Length 95th (ft)	19	60	6	106	34	41
Internal Link Dist (ft)		221		604	288	289
Turn Bay Length (ft)	95		110			
Base Capacity (vph)	295	2631	465	2639	949	1006
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.29	0.04	0.44	0.10	0.14
Intersection Summary						

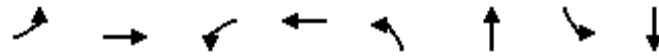


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	35	757	38	1083	79	343	35	243
v/c Ratio	0.23	0.43	0.14	0.61	0.41	0.63	0.27	0.64
Control Delay	17.8	13.1	13.9	15.8	38.2	27.3	40.2	33.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.8	13.1	13.9	15.8	38.2	27.3	40.2	33.1
Queue Length 50th (ft)	8	106	9	176	34	115	15	96
Queue Length 95th (ft)	36	192	33	308	80	231	47	172
Internal Link Dist (ft)		604		590		203		219
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	153	1754	265	1765	232	847	133	740
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.43	0.14	0.61	0.34	0.40	0.26	0.33

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	73	752	34	964	127	195	42	216
v/c Ratio	0.24	0.33	0.09	0.42	0.63	0.29	0.20	0.31
Control Delay	7.9	5.4	5.6	6.1	40.0	21.8	25.1	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.9	5.4	5.6	6.1	40.0	21.8	25.1	14.5
Queue Length 50th (ft)	10	54	4	77	50	33	15	23
Queue Length 95th (ft)	37	112	17	155	102	59	40	50
Internal Link Dist (ft)		590		611		374		284
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	307	2283	400	2294	495	1602	505	1558
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.33	0.09	0.42	0.26	0.12	0.08	0.14
Intersection Summary								



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	57	744	39	840	103	434	27	218
v/c Ratio	0.16	0.33	0.10	0.37	0.49	0.62	0.22	0.31
Control Delay	6.4	5.5	5.6	5.8	32.6	26.2	27.0	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.4	5.5	5.6	5.8	32.6	26.2	27.0	17.9
Queue Length 50th (ft)	7	56	5	66	39	78	10	30
Queue Length 95th (ft)	26	106	18	123	83	121	30	57
Internal Link Dist (ft)		611		319		259		296
Turn Bay Length (ft)	100		100		80			
Base Capacity (vph)	354	2254	397	2260	514	1653	302	1648
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.33	0.10	0.37	0.20	0.26	0.09	0.13
Intersection Summary								



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	746	61	581	78	399	142	628
v/c Ratio	0.41	0.50	0.34	0.39	0.53	0.39	0.59	0.61
Control Delay	35.0	14.4	33.1	13.5	32.4	16.4	29.2	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	14.4	33.1	13.5	32.4	16.4	29.2	19.7
Queue Length 50th (ft)	28	101	22	75	25	60	46	104
Queue Length 95th (ft)	#72	181	60	137	67	93	101	152
Internal Link Dist (ft)		469		380		583		574
Turn Bay Length (ft)	150		95		95		85	
Base Capacity (vph)	196	1491	196	1494	216	1498	353	1497
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.50	0.31	0.39	0.36	0.27	0.40	0.42

Intersection Summary

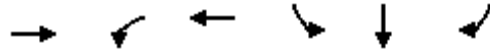
95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	9	899	748	144
v/c Ratio	0.02	0.41	0.34	0.38
Control Delay	4.9	5.8	5.3	15.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	4.9	5.8	5.3	15.9
Queue Length 50th (ft)	1	51	39	27
Queue Length 95th (ft)	6	105	82	62
Internal Link Dist (ft)		331	707	240
Turn Bay Length (ft)	110			
Base Capacity (vph)	577	3207	3167	1212
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.02	0.28	0.24	0.12
Intersection Summary				

Gateway Downtown San Bernardino
 3: I-215 SB Ramps & 5th St.

Opening Year (2023) AM
 Timing Plan: AM Peak



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	954	385	511	380	382	172
v/c Ratio	0.43	0.80	0.26	0.79	0.83	0.32
Control Delay	23.7	68.2	12.9	46.0	49.4	4.9
Queue Delay	0.0	1.4	0.5	57.8	58.0	0.0
Total Delay	23.7	69.6	13.4	103.8	107.4	4.9
Queue Length 50th (ft)	120	151	75	253	268	0
Queue Length 95th (ft)	183	198	144	327	349	43
Internal Link Dist (ft)	707		191		566	
Turn Bay Length (ft)		160				215
Base Capacity (vph)	2226	568	1949	619	594	655
Starvation Cap Reductn	0	64	957	0	0	0
Spillback Cap Reductn	133	0	0	300	288	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.76	0.52	1.19	1.25	0.26

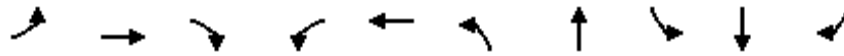
Intersection Summary

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

Opening Year (2023) AM
Timing Plan: AM Peak



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	178	1152	661	220	246	339	335
v/c Ratio	0.61	0.59	0.25	0.29	0.52	0.81	0.68
Control Delay	63.7	26.0	22.2	4.9	33.2	45.9	31.3
Queue Delay	0.0	0.9	0.0	0.3	0.3	1.0	0.0
Total Delay	63.7	26.9	22.2	5.2	33.5	46.9	31.3
Queue Length 50th (ft)	69	278	84	0	149	225	171
Queue Length 95th (ft)	99	451	137	56	191	291	229
Internal Link Dist (ft)		191	282			601	
Turn Bay Length (ft)	180						385
Base Capacity (vph)	307	1958	2652	770	739	644	728
Starvation Cap Reductn	0	487	0	178	0	0	0
Spillback Cap Reductn	0	0	0	0	143	123	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.78	0.25	0.37	0.41	0.65	0.46
Intersection Summary							



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	122	1609	126	2	693	58	91	37	126	187
v/c Ratio	0.54	0.74	0.12	0.02	0.44	0.25	0.17	0.16	0.36	0.33
Control Delay	41.6	13.4	2.3	37.5	15.5	28.7	30.4	27.1	37.0	5.9
Queue Delay	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.6	26.4	2.3	37.5	15.5	28.7	30.4	27.1	37.0	5.9
Queue Length 50th (ft)	57	231	5	1	113	23	20	15	31	5
Queue Length 95th (ft)	113	481	29	8	184	57	44	41	61	48
Internal Link Dist (ft)		282			262		335		141	
Turn Bay Length (ft)	125		130	105		100		75		110
Base Capacity (vph)	336	2171	1082	118	1593	232	1571	240	1595	661
Starvation Cap Reductn	0	571	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	1.01	0.12	0.02	0.44	0.25	0.06	0.15	0.08	0.28

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	89	1557	11	635	35	176
v/c Ratio	0.17	0.62	0.07	0.25	0.10	0.46
Control Delay	3.7	5.4	3.8	2.9	22.7	21.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.7	5.4	3.8	2.9	22.7	21.1
Queue Length 50th (ft)	7	108	1	28	5	22
Queue Length 95th (ft)	23	192	5	53	16	47
Internal Link Dist (ft)		117		98	73	90
Turn Bay Length (ft)	95		100			
Base Capacity (vph)	513	2524	165	2506	1110	1065
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.62	0.07	0.25	0.03	0.17

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	73	1494	5	627	37	59
v/c Ratio	0.12	0.51	0.02	0.22	0.13	0.21
Control Delay	2.3	2.9	2.2	1.7	22.6	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.3	2.9	2.2	1.7	22.6	18.1
Queue Length 50th (ft)	5	81	0	23	6	6
Queue Length 95th (ft)	14	133	2	39	16	20
Internal Link Dist (ft)		221		604	288	289
Turn Bay Length (ft)	95		110			
Base Capacity (vph)	597	2908	228	2896	1107	1036
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.51	0.02	0.22	0.03	0.06
Intersection Summary						



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	80	1380	32	603	10	139	35	189
v/c Ratio	0.19	0.68	0.26	0.30	0.06	0.43	0.20	0.49
Control Delay	9.3	12.0	16.0	7.3	27.1	23.2	27.7	22.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.3	12.0	16.0	7.3	27.1	23.2	27.7	22.4
Queue Length 50th (ft)	8	106	3	33	3	32	10	47
Queue Length 95th (ft)	45	#348	32	110	17	90	37	116
Internal Link Dist (ft)		604		590		203		219
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	411	2037	123	2039	166	891	178	897
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.68	0.26	0.30	0.06	0.16	0.20	0.21

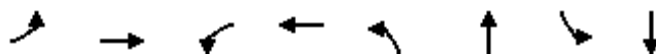
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	58	1228	30	647	26	70	26	129
v/c Ratio	0.11	0.47	0.11	0.25	0.20	0.18	0.19	0.32
Control Delay	3.0	3.6	3.5	2.5	27.1	20.2	26.6	21.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.0	3.6	3.5	2.5	27.1	20.2	26.6	21.5
Queue Length 50th (ft)	4	65	2	26	9	9	9	17
Queue Length 95th (ft)	14	110	9	47	28	25	28	39
Internal Link Dist (ft)		590		611		374		284
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	536	2635	276	2639	502	1471	532	1486
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.47	0.11	0.25	0.05	0.05	0.05	0.09

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	74	1133	63	687	49	134	28	250
v/c Ratio	0.16	0.48	0.24	0.29	0.33	0.26	0.16	0.47
Control Delay	4.3	4.7	6.1	3.6	28.7	18.1	24.2	23.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	4.7	6.1	3.6	28.7	18.1	24.2	23.9
Queue Length 50th (ft)	7	67	6	35	16	16	9	39
Queue Length 95th (ft)	21	116	23	62	43	37	28	68
Internal Link Dist (ft)		611		585		259		296
Turn Bay Length (ft)	100		100		80		50	
Base Capacity (vph)	461	2341	267	2381	460	1528	522	1553
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.48	0.24	0.29	0.11	0.09	0.05	0.16
Intersection Summary								



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	115	730	63	822	147	747	124	543
v/c Ratio	0.67	0.51	0.39	0.62	0.69	0.64	0.91	0.47
Control Delay	53.0	16.5	37.2	19.0	39.1	20.3	83.9	16.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.0	16.5	37.2	19.0	39.1	20.3	83.9	16.8
Queue Length 50th (ft)	49	125	26	144	52	131	49	83
Queue Length 95th (ft)	#127	178	61	205	#138	185	#146	125
Internal Link Dist (ft)		469		380		583		574
Turn Bay Length (ft)	150		95		95		85	
Base Capacity (vph)	173	1423	173	1322	242	1324	155	1322
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.51	0.36	0.62	0.61	0.56	0.80	0.41

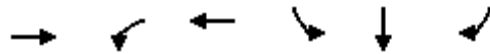
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	12	897	1097	102
v/c Ratio	0.04	0.34	0.42	0.47
Control Delay	3.2	3.4	3.8	34.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	3.2	3.4	3.8	34.2
Queue Length 50th (ft)	1	52	67	40
Queue Length 95th (ft)	6	95	123	83
Internal Link Dist (ft)		331	707	240
Turn Bay Length (ft)	110			
Base Capacity (vph)	320	2655	2612	641
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.04	0.34	0.42	0.16

Intersection Summary



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1004	540	916	162	157	145
v/c Ratio	0.39	0.80	0.38	0.68	0.66	0.42
Control Delay	16.4	31.9	3.3	49.7	42.5	9.4
Queue Delay	0.0	0.3	0.1	1.1	1.0	0.0
Total Delay	16.4	32.3	3.4	50.7	43.5	9.4
Queue Length 50th (ft)	90	81	19	92	79	0
Queue Length 95th (ft)	149	96	72	148	137	48
Internal Link Dist (ft)	707		191		566	
Turn Bay Length (ft)		160				215
Base Capacity (vph)	2582	852	2409	370	361	456
Starvation Cap Reductn	0	58	520	0	0	0
Spillback Cap Reductn	10	0	0	75	70	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.68	0.48	0.55	0.54	0.32

Intersection Summary

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

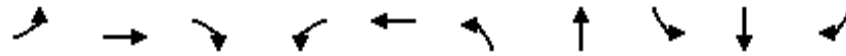
Opening Year (2023) PM
Timing Plan: PM Peak



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	232	688	1061	742	307	296	286
v/c Ratio	0.65	0.33	0.39	0.70	0.81	0.71	0.55
Control Delay	41.7	11.8	18.3	5.6	47.8	28.1	11.6
Queue Delay	0.0	1.7	0.0	0.4	0.0	0.0	0.0
Total Delay	41.7	13.6	18.3	6.0	47.8	28.1	11.6
Queue Length 50th (ft)	54	53	121	0	170	105	33
Queue Length 95th (ft)	#142	217	148	74	254	194	103
Internal Link Dist (ft)		191	282			601	
Turn Bay Length (ft)	180						385
Base Capacity (vph)	356	2088	2769	1073	468	493	593
Starvation Cap Reductn	0	1181	0	77	0	0	0
Spillback Cap Reductn	0	0	2	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.76	0.38	0.74	0.66	0.60	0.48

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	218	867	94	5	1279	238	233	24	88	355
v/c Ratio	0.92	0.40	0.09	0.04	0.83	1.03	0.39	0.11	0.22	0.87
Control Delay	78.0	8.9	2.0	34.8	24.8	97.5	26.7	22.4	31.3	42.9
Queue Delay	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.0	9.3	2.0	34.8	24.8	97.5	26.7	22.4	31.3	42.9
Queue Length 50th (ft)	101	82	1	2	259	99	41	9	20	124
Queue Length 95th (ft)	#248	202	20	13	#444	#256	83	26	40	#236
Internal Link Dist (ft)		282			262		335		141	
Turn Bay Length (ft)	125		130	105		100		75		110
Base Capacity (vph)	236	2145	1084	128	1538	231	1691	229	1728	410
Starvation Cap Reductn	0	709	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.60	0.09	0.04	0.83	1.03	0.14	0.10	0.05	0.87

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	95	786	10	1280	141	289
v/c Ratio	0.41	0.32	0.02	0.52	0.32	0.64
Control Delay	11.2	4.0	3.6	5.4	27.2	27.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.2	4.0	3.6	5.4	27.2	27.4
Queue Length 50th (ft)	13	50	1	101	28	46
Queue Length 95th (ft)	56	93	6	184	53	84
Internal Link Dist (ft)		117		100	64	90
Turn Bay Length (ft)	95		100			
Base Capacity (vph)	230	2476	422	2452	977	902
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.32	0.02	0.52	0.14	0.32

Intersection Summary



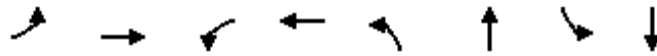
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	65	798	18	1205	97	147
v/c Ratio	0.23	0.30	0.04	0.46	0.33	0.44
Control Delay	4.7	2.6	2.4	3.4	23.8	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.7	2.6	2.4	3.4	23.8	20.4
Queue Length 50th (ft)	5	35	1	64	13	16
Queue Length 95th (ft)	20	63	6	112	35	42
Internal Link Dist (ft)		221		604	288	289
Turn Bay Length (ft)	95		110			
Base Capacity (vph)	282	2629	452	2637	947	1009
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.30	0.04	0.46	0.10	0.15

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	36	779	39	1115	82	355	36	249
v/c Ratio	0.25	0.45	0.15	0.64	0.41	0.69	0.28	0.65
Control Delay	19.5	13.7	14.6	16.8	38.0	31.0	41.1	33.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.5	13.7	14.6	16.8	38.0	31.0	41.1	33.6
Queue Length 50th (ft)	9	117	9	195	35	150	16	102
Queue Length 95th (ft)	38	204	34	330	83	239	48	177
Internal Link Dist (ft)		604		590		203		219
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	142	1733	252	1744	234	837	132	732
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.45	0.15	0.64	0.35	0.42	0.27	0.34

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	75	775	35	993	130	201	43	223
v/c Ratio	0.26	0.34	0.09	0.44	0.63	0.29	0.20	0.32
Control Delay	8.7	5.8	6.0	6.5	39.8	21.7	24.8	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.7	5.8	6.0	6.5	39.8	21.7	24.8	14.2
Queue Length 50th (ft)	10	58	4	82	52	34	16	24
Queue Length 95th (ft)	42	123	19	171	104	61	40	50
Internal Link Dist (ft)		590		611		374		284
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	292	2267	385	2278	488	1594	500	1550
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.34	0.09	0.44	0.27	0.13	0.09	0.14

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	60	765	40	866	105	448	28	225
v/c Ratio	0.18	0.34	0.10	0.39	0.50	0.63	0.23	0.31
Control Delay	6.8	5.7	5.8	6.0	32.6	26.4	27.4	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	5.7	5.8	6.0	32.6	26.4	27.4	17.8
Queue Length 50th (ft)	8	60	5	71	40	82	10	31
Queue Length 95th (ft)	28	111	19	131	84	125	31	58
Internal Link Dist (ft)		611		319		259		296
Turn Bay Length (ft)	100		100		80			
Base Capacity (vph)	339	2242	384	2248	508	1644	290	1640
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.34	0.10	0.39	0.21	0.27	0.10	0.14

Intersection Summary



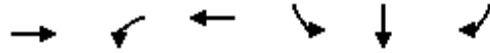
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	754	68	597	78	411	153	633
v/c Ratio	0.49	0.49	0.39	0.41	0.57	0.41	0.68	0.63
Control Delay	42.0	14.5	35.7	13.9	35.7	17.2	35.3	20.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.0	14.5	35.7	13.9	35.7	17.2	35.3	20.8
Queue Length 50th (ft)	28	105	25	76	25	61	51	105
Queue Length 95th (ft)	#86	183	65	137	68	95	112	153
Internal Link Dist (ft)		469		380		583		574
Turn Bay Length (ft)	150		95		95		85	
Base Capacity (vph)	158	1541	185	1464	195	1413	321	1414
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.49	0.37	0.41	0.40	0.29	0.48	0.45

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	9	923	769	144
v/c Ratio	0.02	0.42	0.35	0.38
Control Delay	4.9	5.8	5.3	16.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	4.9	5.8	5.3	16.2
Queue Length 50th (ft)	1	53	40	27
Queue Length 95th (ft)	6	108	84	63
Internal Link Dist (ft)		331	707	240
Turn Bay Length (ft)	110			
Base Capacity (vph)	567	3242	3201	1176
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.02	0.28	0.24	0.12
Intersection Summary				



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	977	397	531	386	388	172
v/c Ratio	0.45	0.81	0.27	0.80	0.84	0.31
Control Delay	24.4	68.8	13.5	46.1	49.6	4.8
Queue Delay	0.0	1.8	0.5	57.2	57.5	0.0
Total Delay	24.4	70.6	14.0	103.3	107.1	4.8
Queue Length 50th (ft)	127	155	77	256	272	0
Queue Length 95th (ft)	188	204	155	333	357	43
Internal Link Dist (ft)	707		191		566	
Turn Bay Length (ft)		160				215
Base Capacity (vph)	2191	565	1939	619	594	655
Starvation Cap Reductn	0	66	952	0	0	0
Spillback Cap Reductn	144	0	0	286	275	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.80	0.54	1.16	1.22	0.26
Intersection Summary						

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

Opening Year + Cumulative Projects AM

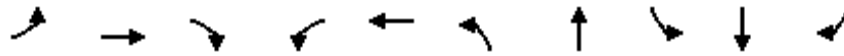
Timing Plan: AM Peak



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	178	1189	694	233	246	345	342
v/c Ratio	0.61	0.62	0.27	0.30	0.51	0.81	0.68
Control Delay	64.7	26.4	22.9	4.9	32.2	45.5	30.9
Queue Delay	0.0	0.7	0.0	0.2	0.3	1.2	0.0
Total Delay	64.7	27.1	22.9	5.2	32.6	46.8	30.9
Queue Length 50th (ft)	69	267	90	0	146	228	172
Queue Length 95th (ft)	m97	475	145	58	188	297	232
Internal Link Dist (ft)		191	282			601	
Turn Bay Length (ft)	180						385
Base Capacity (vph)	307	1932	2604	768	739	643	728
Starvation Cap Reductn	0	397	0	162	0	0	0
Spillback Cap Reductn	0	0	0	0	157	135	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.77	0.27	0.38	0.42	0.68	0.47

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	150	1633	126	2	714	58	98	37	132	212
v/c Ratio	0.60	0.75	0.12	0.02	0.46	0.25	0.18	0.16	0.37	0.36
Control Delay	42.3	13.9	2.4	37.5	16.7	28.6	30.4	27.0	37.2	7.5
Queue Delay	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	29.9	2.4	37.5	16.7	28.6	30.4	27.0	37.2	7.5
Queue Length 50th (ft)	71	239	6	1	124	23	21	15	33	16
Queue Length 95th (ft)	133	#498	30	8	195	57	46	40	63	62
Internal Link Dist (ft)		282			262		335		141	
Turn Bay Length (ft)	125		130	105		100		75		110
Base Capacity (vph)	336	2168	1080	118	1542	232	1610	241	1632	657
Starvation Cap Reductn	0	562	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	1.02	0.12	0.02	0.46	0.25	0.06	0.15	0.08	0.32

Intersection Summary

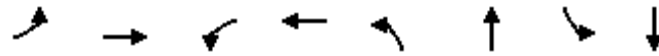
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	89	1581	11	699	40	221
v/c Ratio	0.19	0.65	0.07	0.29	0.10	0.53
Control Delay	4.5	6.4	4.5	3.5	21.7	23.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.5	6.4	4.5	3.5	21.7	23.0
Queue Length 50th (ft)	8	124	1	35	6	30
Queue Length 95th (ft)	27	225	6	66	18	59
Internal Link Dist (ft)		117		103	68	90
Turn Bay Length (ft)	95		100			
Base Capacity (vph)	464	2451	150	2426	1174	1078
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.65	0.07	0.29	0.03	0.21
Intersection Summary						



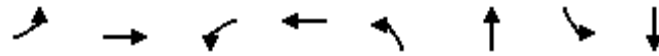
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	77	1555	5	684	42	63
v/c Ratio	0.14	0.54	0.02	0.24	0.16	0.23
Control Delay	2.4	3.1	2.2	1.7	23.5	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.4	3.1	2.2	1.7	23.5	17.6
Queue Length 50th (ft)	5	88	0	25	7	6
Queue Length 95th (ft)	15	143	2	43	18	21
Internal Link Dist (ft)		211		604	288	289
Turn Bay Length (ft)	95		110			
Base Capacity (vph)	565	2905	211	2893	1024	994
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.54	0.02	0.24	0.04	0.06
Intersection Summary						



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	85	1429	32	646	16	139	36	194
v/c Ratio	0.22	0.70	0.28	0.32	0.10	0.43	0.20	0.50
Control Delay	9.8	12.8	17.4	7.5	27.7	23.3	27.7	22.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.8	12.8	17.4	7.5	27.7	23.3	27.7	22.4
Queue Length 50th (ft)	9	114	3	36	4	32	10	48
Queue Length 95th (ft)	49	#412	34	121	23	90	38	118
Internal Link Dist (ft)		604		590		203		219
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	387	2033	115	2035	166	892	179	894
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.70	0.28	0.32	0.10	0.16	0.20	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	63	1268	30	678	32	70	26	134
v/c Ratio	0.12	0.48	0.11	0.26	0.24	0.17	0.18	0.32
Control Delay	3.2	3.8	3.8	2.7	28.0	20.0	26.3	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.2	3.8	3.8	2.7	28.0	20.0	26.3	20.6
Queue Length 50th (ft)	5	68	2	28	11	9	9	17
Queue Length 95th (ft)	16	122	10	52	33	25	28	39
Internal Link Dist (ft)		590		611		374		284
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	519	2624	261	2632	499	1471	532	1479
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.48	0.11	0.26	0.06	0.05	0.05	0.09
Intersection Summary								



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	80	1163	63	706	57	134	28	258
v/c Ratio	0.18	0.49	0.24	0.29	0.39	0.26	0.16	0.49
Control Delay	4.5	4.8	6.5	3.7	32.0	18.6	24.9	24.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.5	4.8	6.5	3.7	32.0	18.6	24.9	24.5
Queue Length 50th (ft)	7	71	6	37	20	17	9	42
Queue Length 95th (ft)	24	131	25	70	50	38	29	72
Internal Link Dist (ft)		611		585		259		296
Turn Bay Length (ft)	100		100		80		50	
Base Capacity (vph)	453	2356	259	2395	397	1375	468	1395
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.49	0.24	0.29	0.14	0.10	0.06	0.18

Intersection Summary



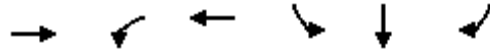
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	115	736	69	841	147	760	133	551
v/c Ratio	0.82	0.52	0.44	0.67	0.69	0.64	0.99	0.46
Control Delay	76.3	17.1	39.3	20.3	38.1	20.1	101.0	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.3	17.1	39.3	20.3	38.1	20.1	101.0	16.7
Queue Length 50th (ft)	50	130	29	148	51	130	53	82
Queue Length 95th (ft)	#138	185	66	211	#136	184	#156	123
Internal Link Dist (ft)		469		380		583		574
Turn Bay Length (ft)	150		95		95		85	
Base Capacity (vph)	140	1424	164	1253	234	1302	149	1300
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.52	0.42	0.67	0.63	0.58	0.89	0.42

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	12	915	1118	102
v/c Ratio	0.04	0.34	0.43	0.47
Control Delay	3.3	3.5	3.9	34.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	3.3	3.5	3.9	34.2
Queue Length 50th (ft)	1	54	70	40
Queue Length 95th (ft)	6	97	127	83
Internal Link Dist (ft)		331	707	240
Turn Bay Length (ft)	110			
Base Capacity (vph)	312	2655	2612	641
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.04	0.34	0.43	0.16
Intersection Summary				



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1022	551	938	165	163	149
v/c Ratio	0.40	0.80	0.39	0.69	0.68	0.43
Control Delay	16.9	32.5	3.3	49.7	44.6	9.3
Queue Delay	0.0	0.4	0.1	1.7	1.7	0.0
Total Delay	16.9	32.8	3.5	51.4	46.3	9.3
Queue Length 50th (ft)	94	84	24	94	84	0
Queue Length 95th (ft)	155	95	70	150	145	49
Internal Link Dist (ft)	707		191		566	
Turn Bay Length (ft)		160				215
Base Capacity (vph)	2553	854	2403	370	360	459
Starvation Cap Reductn	0	57	467	0	0	0
Spillback Cap Reductn	12	0	0	94	88	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.69	0.48	0.60	0.60	0.32
Intersection Summary						

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

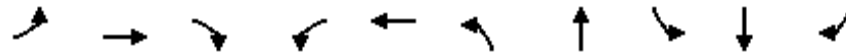
Opening Year+Cumulative Projects PM
Timing Plan: PM Peak



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	232	720	1094	754	312	301	289
v/c Ratio	0.65	0.35	0.41	0.70	0.82	0.70	0.56
Control Delay	42.1	12.4	18.5	5.7	48.2	26.6	13.4
Queue Delay	0.0	2.0	0.0	0.4	0.0	0.0	0.0
Total Delay	42.1	14.4	18.5	6.2	48.2	26.6	13.4
Queue Length 50th (ft)	57	72	126	0	172	102	43
Queue Length 95th (ft)	#141	240	153	76	258	192	115
Internal Link Dist (ft)		191	282			601	
Turn Bay Length (ft)	180						385
Base Capacity (vph)	356	2081	2764	1079	468	500	582
Starvation Cap Reductn	0	1164	0	73	0	0	0
Spillback Cap Reductn	0	0	15	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.79	0.40	0.75	0.67	0.60	0.50

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	244	885	94	5	1301	238	239	24	94	378
v/c Ratio	1.04	0.41	0.09	0.04	0.85	1.03	0.40	0.11	0.24	0.92
Control Delay	105.3	9.0	2.0	34.8	25.8	96.2	26.9	22.4	31.4	50.9
Queue Delay	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.3	9.4	2.0	34.8	25.8	96.2	26.9	22.4	31.4	50.9
Queue Length 50th (ft)	~125	85	1	2	268	99	42	9	21	137
Queue Length 95th (ft)	#282	208	20	13	#459	#247	85	26	42	#276
Internal Link Dist (ft)		282			262		335		141	
Turn Bay Length (ft)	125		130	105		100		75		110
Base Capacity (vph)	235	2141	1082	128	1535	232	1687	229	1725	411
Starvation Cap Reductn	0	703	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.62	0.09	0.04	0.85	1.03	0.14	0.10	0.05	0.92

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

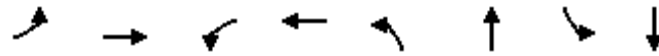


Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	95	804	10	1343	145	328
v/c Ratio	0.47	0.33	0.03	0.56	0.29	0.68
Control Delay	15.7	4.8	4.3	6.6	26.1	29.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.7	4.8	4.3	6.6	26.1	29.9
Queue Length 50th (ft)	16	60	1	125	28	59
Queue Length 95th (ft)	76	111	6	228	54	101
Internal Link Dist (ft)		117		103	71	90
Turn Bay Length (ft)	95		100			
Base Capacity (vph)	200	2410	398	2385	958	854
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.33	0.03	0.56	0.15	0.38
Intersection Summary						



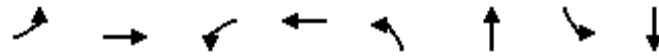
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	68	848	18	1261	101	151
v/c Ratio	0.25	0.32	0.04	0.48	0.36	0.45
Control Delay	5.2	2.7	2.4	3.5	25.0	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.2	2.7	2.4	3.5	25.0	20.7
Queue Length 50th (ft)	6	38	1	70	15	16
Queue Length 95th (ft)	22	69	6	122	37	43
Internal Link Dist (ft)		211		604	288	289
Turn Bay Length (ft)	95		110			
Base Capacity (vph)	267	2643	431	2651	843	918
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.32	0.04	0.48	0.12	0.16

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	40	823	39	1160	89	356	36	256
v/c Ratio	0.31	0.48	0.17	0.67	0.45	0.70	0.28	0.65
Control Delay	22.5	14.1	15.1	17.3	39.4	30.8	40.7	32.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.5	14.1	15.1	17.3	39.4	30.8	40.7	32.9
Queue Length 50th (ft)	11	126	10	207	39	150	16	103
Queue Length 95th (ft)	45	218	34	349	89	238	48	178
Internal Link Dist (ft)		604		590		203		219
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	129	1727	235	1739	201	858	133	821
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.48	0.17	0.67	0.44	0.41	0.27	0.31

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	80	809	35	1028	137	201	43	228
v/c Ratio	0.29	0.35	0.09	0.45	0.67	0.29	0.20	0.32
Control Delay	9.7	6.1	6.4	6.9	44.2	23.1	26.2	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.7	6.1	6.4	6.9	44.2	23.1	26.2	14.7
Queue Length 50th (ft)	12	66	5	93	60	37	17	26
Queue Length 95th (ft)	49	141	20	194	116	64	43	53
Internal Link Dist (ft)		590		611		374		284
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	280	2280	370	2294	392	1313	411	1292
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.35	0.09	0.45	0.35	0.15	0.10	0.18
Intersection Summary								



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	64	788	40	884	117	449	28	230
v/c Ratio	0.19	0.35	0.11	0.40	0.54	0.62	0.23	0.31
Control Delay	7.4	6.0	6.1	6.3	34.3	26.0	26.8	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.4	6.0	6.1	6.3	34.3	26.0	26.8	17.2
Queue Length 50th (ft)	9	62	5	73	45	82	10	31
Queue Length 95th (ft)	33	123	21	143	93	125	31	58
Internal Link Dist (ft)		611		319		259		296
Turn Bay Length (ft)	100		100		80			
Base Capacity (vph)	329	2232	371	2237	503	1637	290	1630
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.35	0.11	0.40	0.23	0.27	0.10	0.14

Intersection Summary



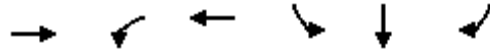
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	115	736	69	841	147	760	133	551
v/c Ratio	0.82	0.52	0.44	0.67	0.69	0.64	0.99	0.46
Control Delay	76.3	17.1	39.3	20.3	38.1	20.1	101.0	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.3	17.1	39.3	20.3	38.1	20.1	101.0	16.7
Queue Length 50th (ft)	50	130	29	148	51	130	53	82
Queue Length 95th (ft)	#138	185	66	211	#136	184	#156	123
Internal Link Dist (ft)		469		380		583		574
Turn Bay Length (ft)	150		95		95		85	
Base Capacity (vph)	140	1424	164	1253	234	1302	149	1300
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.52	0.42	0.67	0.63	0.58	0.89	0.42

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	12	915	1118	102
v/c Ratio	0.04	0.34	0.43	0.47
Control Delay	3.3	3.5	3.9	34.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	3.3	3.5	3.9	34.2
Queue Length 50th (ft)	1	54	70	40
Queue Length 95th (ft)	6	97	127	83
Internal Link Dist (ft)		331	707	240
Turn Bay Length (ft)	110			
Base Capacity (vph)	312	2655	2612	641
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.04	0.34	0.43	0.16
Intersection Summary				



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1022	551	938	165	163	149
v/c Ratio	0.40	0.80	0.39	0.69	0.68	0.43
Control Delay	16.9	32.5	3.3	49.7	44.6	9.3
Queue Delay	0.0	0.4	0.1	1.7	1.7	0.0
Total Delay	16.9	32.8	3.5	51.4	46.3	9.3
Queue Length 50th (ft)	94	84	24	94	84	0
Queue Length 95th (ft)	155	95	70	150	145	49
Internal Link Dist (ft)	707		191		566	
Turn Bay Length (ft)		160				215
Base Capacity (vph)	2553	854	2403	370	360	459
Starvation Cap Reductn	0	57	467	0	0	0
Spillback Cap Reductn	12	0	0	94	88	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.69	0.48	0.60	0.60	0.32
Intersection Summary						

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

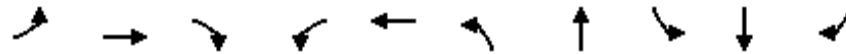
Opening Year+Cumulative Projects PM
Timing Plan: PM Peak



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	232	720	1094	754	312	301	289
v/c Ratio	0.65	0.35	0.41	0.70	0.82	0.70	0.56
Control Delay	42.1	12.4	18.5	5.7	48.2	26.6	13.4
Queue Delay	0.0	2.0	0.0	0.4	0.0	0.0	0.0
Total Delay	42.1	14.4	18.5	6.2	48.2	26.6	13.4
Queue Length 50th (ft)	57	72	126	0	172	102	43
Queue Length 95th (ft)	#141	240	153	76	258	192	115
Internal Link Dist (ft)		191	282			601	
Turn Bay Length (ft)	180						385
Base Capacity (vph)	356	2081	2764	1079	468	500	582
Starvation Cap Reductn	0	1164	0	73	0	0	0
Spillback Cap Reductn	0	0	15	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.79	0.40	0.75	0.67	0.60	0.50

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	244	885	94	5	1301	238	239	24	94	378
v/c Ratio	1.04	0.41	0.09	0.04	0.85	1.03	0.40	0.11	0.24	0.92
Control Delay	105.3	9.0	2.0	34.8	25.8	96.2	26.9	22.4	31.4	50.9
Queue Delay	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.3	9.4	2.0	34.8	25.8	96.2	26.9	22.4	31.4	50.9
Queue Length 50th (ft)	~125	85	1	2	268	99	42	9	21	137
Queue Length 95th (ft)	#282	208	20	13	#459	#247	85	26	42	#276
Internal Link Dist (ft)		282			262		335		141	
Turn Bay Length (ft)	125		130	105		100		75		110
Base Capacity (vph)	235	2141	1082	128	1535	232	1687	229	1725	411
Starvation Cap Reductn	0	703	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.62	0.09	0.04	0.85	1.03	0.14	0.10	0.05	0.92

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

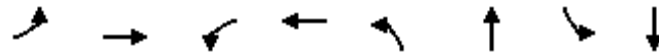


Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	95	804	10	1343	145	328
v/c Ratio	0.47	0.33	0.03	0.56	0.29	0.68
Control Delay	15.7	4.8	4.3	6.6	26.1	29.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.7	4.8	4.3	6.6	26.1	29.9
Queue Length 50th (ft)	16	60	1	125	28	59
Queue Length 95th (ft)	76	111	6	228	54	101
Internal Link Dist (ft)		117		103	71	90
Turn Bay Length (ft)	95		100			
Base Capacity (vph)	200	2410	398	2385	958	854
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.33	0.03	0.56	0.15	0.38
Intersection Summary						



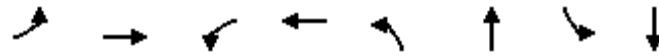
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	68	848	18	1261	101	151
v/c Ratio	0.25	0.32	0.04	0.48	0.36	0.45
Control Delay	5.2	2.7	2.4	3.5	25.0	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.2	2.7	2.4	3.5	25.0	20.7
Queue Length 50th (ft)	6	38	1	70	15	16
Queue Length 95th (ft)	22	69	6	122	37	43
Internal Link Dist (ft)		211		604	288	289
Turn Bay Length (ft)	95		110			
Base Capacity (vph)	267	2643	431	2651	843	918
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.32	0.04	0.48	0.12	0.16

Intersection Summary

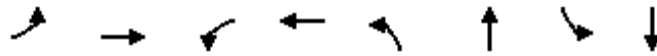


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	40	823	39	1160	89	356	36	256
v/c Ratio	0.31	0.48	0.17	0.67	0.45	0.70	0.28	0.65
Control Delay	22.5	14.1	15.1	17.3	39.4	30.8	40.7	32.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.5	14.1	15.1	17.3	39.4	30.8	40.7	32.9
Queue Length 50th (ft)	11	126	10	207	39	150	16	103
Queue Length 95th (ft)	45	218	34	349	89	238	48	178
Internal Link Dist (ft)		604		590		203		219
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	129	1727	235	1739	201	858	133	821
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.48	0.17	0.67	0.44	0.41	0.27	0.31

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	80	809	35	1028	137	201	43	228
v/c Ratio	0.29	0.35	0.09	0.45	0.67	0.29	0.20	0.32
Control Delay	9.7	6.1	6.4	6.9	44.2	23.1	26.2	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.7	6.1	6.4	6.9	44.2	23.1	26.2	14.7
Queue Length 50th (ft)	12	66	5	93	60	37	17	26
Queue Length 95th (ft)	49	141	20	194	116	64	43	53
Internal Link Dist (ft)		590		611		374		284
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	280	2280	370	2294	392	1313	411	1292
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.35	0.09	0.45	0.35	0.15	0.10	0.18
Intersection Summary								



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	64	788	40	884	117	449	28	230
v/c Ratio	0.19	0.35	0.11	0.40	0.54	0.62	0.23	0.31
Control Delay	7.4	6.0	6.1	6.3	34.3	26.0	26.8	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.4	6.0	6.1	6.3	34.3	26.0	26.8	17.2
Queue Length 50th (ft)	9	62	5	73	45	82	10	31
Queue Length 95th (ft)	33	123	21	143	93	125	31	58
Internal Link Dist (ft)		611		319		259		296
Turn Bay Length (ft)	100		100		80			
Base Capacity (vph)	329	2232	371	2237	503	1637	290	1630
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.35	0.11	0.40	0.23	0.27	0.10	0.14

Intersection Summary



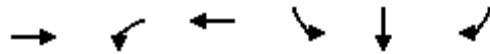
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	757	70	601	78	413	155	633
v/c Ratio	0.49	0.49	0.40	0.41	0.57	0.41	0.69	0.63
Control Delay	42.1	14.6	36.1	14.0	35.6	17.1	35.9	20.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.1	14.6	36.1	14.0	35.6	17.1	35.9	20.8
Queue Length 50th (ft)	29	107	26	77	25	61	52	105
Queue Length 95th (ft)	#86	184	67	137	68	95	114	153
Internal Link Dist (ft)		469		380		583		574
Turn Bay Length (ft)	150		95		95		85	
Base Capacity (vph)	158	1539	185	1464	195	1410	319	1412
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.49	0.38	0.41	0.40	0.29	0.49	0.45

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	9	929	776	144
v/c Ratio	0.02	0.42	0.35	0.38
Control Delay	4.9	5.8	5.3	16.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	4.9	5.8	5.3	16.2
Queue Length 50th (ft)	1	53	41	27
Queue Length 95th (ft)	5	110	86	63
Internal Link Dist (ft)		331	707	240
Turn Bay Length (ft)	110			
Base Capacity (vph)	562	3237	3196	1173
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.02	0.29	0.24	0.12
Intersection Summary				



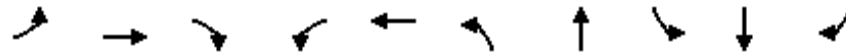
Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	983	403	537	389	391	172
v/c Ratio	0.45	0.81	0.28	0.80	0.84	0.31
Control Delay	24.7	68.8	14.2	46.2	49.7	4.8
Queue Delay	0.0	2.2	0.6	57.1	57.3	0.0
Total Delay	24.7	71.0	14.7	103.3	107.0	4.8
Queue Length 50th (ft)	130	158	78	258	274	0
Queue Length 95th (ft)	189	206	166	338	360	43
Internal Link Dist (ft)	707		191		566	
Turn Bay Length (ft)		160				215
Base Capacity (vph)	2175	566	1933	618	594	654
Starvation Cap Reductn	0	70	950	0	0	0
Spillback Cap Reductn	158	0	0	282	271	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.81	0.55	1.16	1.21	0.26
Intersection Summary						



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	178	1202	706	240	246	348	346
v/c Ratio	0.61	0.63	0.27	0.31	0.50	0.81	0.68
Control Delay	64.8	26.7	23.3	5.0	31.7	45.2	30.7
Queue Delay	0.0	0.7	0.0	0.3	0.3	1.4	0.0
Total Delay	64.8	27.4	23.3	5.3	32.1	46.6	30.7
Queue Length 50th (ft)	69	265	93	0	145	231	174
Queue Length 95th (ft)	m96	484	150	59	186	297	233
Internal Link Dist (ft)		191	282			601	
Turn Bay Length (ft)	180						385
Base Capacity (vph)	307	1917	2579	766	739	642	728
Starvation Cap Reductn	0	370	0	156	0	0	0
Spillback Cap Reductn	0	0	0	0	163	139	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.78	0.27	0.39	0.43	0.69	0.48

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	150	1653	126	3	735	58	100	39	132	212
v/c Ratio	0.60	0.76	0.12	0.03	0.48	0.25	0.19	0.16	0.37	0.36
Control Delay	42.3	14.2	2.4	37.7	16.9	28.6	29.8	27.2	37.2	7.9
Queue Delay	0.0	18.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	32.4	2.4	37.7	16.9	28.6	29.8	27.2	37.2	7.9
Queue Length 50th (ft)	71	245	6	1	128	23	21	16	33	18
Queue Length 95th (ft)	133	#525	30	10	203	57	46	42	63	65
Internal Link Dist (ft)		282			262		335		141	
Turn Bay Length (ft)	125		130	105		100		75		110
Base Capacity (vph)	336	2168	1080	118	1540	232	1606	241	1632	654
Starvation Cap Reductn	0	554	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	1.02	0.12	0.03	0.48	0.25	0.06	0.16	0.08	0.32

Intersection Summary

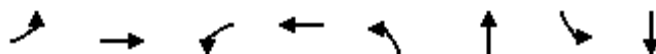
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	102	1590	24	724	65	224
v/c Ratio	0.23	0.65	0.16	0.30	0.17	0.53
Control Delay	4.9	6.6	6.5	3.6	21.2	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.9	6.6	6.5	3.6	21.2	23.1
Queue Length 50th (ft)	10	127	2	37	10	30
Queue Length 95th (ft)	32	231	13	70	25	60
Internal Link Dist (ft)		117		103	68	90
Turn Bay Length (ft)	95		100			
Base Capacity (vph)	449	2443	147	2414	1055	1069
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.65	0.16	0.30	0.06	0.21
Intersection Summary						



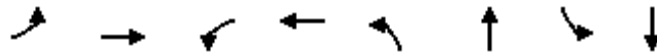
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	78	1569	5	703	44	65
v/c Ratio	0.14	0.54	0.02	0.24	0.16	0.23
Control Delay	2.5	3.1	2.2	1.8	23.7	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.5	3.1	2.2	1.8	23.7	17.2
Queue Length 50th (ft)	5	89	0	26	7	6
Queue Length 95th (ft)	15	146	2	44	19	21
Internal Link Dist (ft)		211		604	288	289
Turn Bay Length (ft)	95		110			
Base Capacity (vph)	553	2903	208	2890	1017	997
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.54	0.02	0.24	0.04	0.07
Intersection Summary						



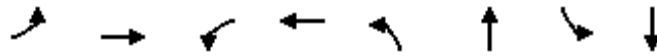
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	86	1441	32	661	18	139	36	196
v/c Ratio	0.23	0.71	0.28	0.33	0.11	0.43	0.20	0.50
Control Delay	10.0	13.0	17.5	7.6	27.9	23.2	27.7	22.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	13.0	17.5	7.6	27.9	23.2	27.7	22.3
Queue Length 50th (ft)	9	116	3	37	5	32	10	49
Queue Length 95th (ft)	50	#418	34	124	25	90	38	119
Internal Link Dist (ft)		604		590		203		219
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	379	2029	115	2031	166	892	180	894
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.71	0.28	0.33	0.11	0.16	0.20	0.22

Intersection Summary

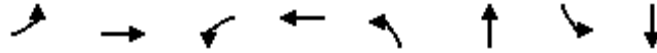
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	65	1278	30	690	34	70	26	136
v/c Ratio	0.13	0.49	0.12	0.26	0.25	0.17	0.18	0.32
Control Delay	3.3	3.9	3.9	2.7	28.3	20.0	26.2	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.3	3.9	3.9	2.7	28.3	20.0	26.2	20.4
Queue Length 50th (ft)	5	69	2	29	11	9	9	17
Queue Length 95th (ft)	16	126	10	54	34	25	28	40
Internal Link Dist (ft)		590		611		374		284
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	512	2621	257	2631	498	1470	532	1479
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.49	0.12	0.26	0.07	0.05	0.05	0.09
Intersection Summary								



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	81	1170	63	715	60	134	28	260
v/c Ratio	0.18	0.50	0.25	0.30	0.41	0.25	0.16	0.49
Control Delay	4.7	4.9	6.6	3.8	32.7	18.5	24.8	24.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.7	4.9	6.6	3.8	32.7	18.5	24.8	24.2
Queue Length 50th (ft)	8	72	6	37	21	17	9	42
Queue Length 95th (ft)	26	135	26	72	52	38	29	72
Internal Link Dist (ft)		611		585		259		296
Turn Bay Length (ft)	100		100		80		50	
Base Capacity (vph)	447	2352	256	2390	394	1373	468	1392
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.50	0.25	0.30	0.15	0.10	0.06	0.19
Intersection Summary								



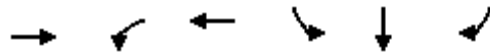
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	115	739	73	845	147	763	136	551
v/c Ratio	0.83	0.56	0.47	0.68	0.67	0.64	0.98	0.46
Control Delay	77.2	18.9	40.4	20.5	36.5	20.0	99.1	16.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.2	18.9	40.4	20.5	36.5	20.0	99.1	16.6
Queue Length 50th (ft)	50	131	30	149	51	130	55	82
Queue Length 95th (ft)	#138	186	69	212	#134	185	#159	123
Internal Link Dist (ft)		469		380		583		574
Turn Bay Length (ft)	150		95		95		85	
Base Capacity (vph)	139	1312	163	1247	236	1293	150	1292
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.56	0.45	0.68	0.62	0.59	0.91	0.43

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	12	924	1125	102
v/c Ratio	0.04	0.35	0.43	0.47
Control Delay	3.3	3.5	3.9	34.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	3.3	3.5	3.9	34.2
Queue Length 50th (ft)	1	54	71	40
Queue Length 95th (ft)	6	99	128	83
Internal Link Dist (ft)		331	707	240
Turn Bay Length (ft)	110			
Base Capacity (vph)	310	2655	2612	641
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.04	0.35	0.43	0.16
Intersection Summary				



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1031	557	945	168	164	151
v/c Ratio	0.41	0.80	0.39	0.69	0.68	0.43
Control Delay	17.3	32.5	3.4	49.7	44.9	9.2
Queue Delay	0.0	0.4	0.1	2.2	2.1	0.0
Total Delay	17.3	32.8	3.5	51.9	47.0	9.2
Queue Length 50th (ft)	96	84	25	96	86	0
Queue Length 95th (ft)	158	94	69	152	146	49
Internal Link Dist (ft)	707		191		566	
Turn Bay Length (ft)		160				215
Base Capacity (vph)	2532	855	2396	370	359	460
Starvation Cap Reductn	0	56	466	0	0	0
Spillback Cap Reductn	12	0	0	104	97	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.70	0.49	0.63	0.63	0.33
Intersection Summary						

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

Opening Year + Cumulative Projects + Project PM

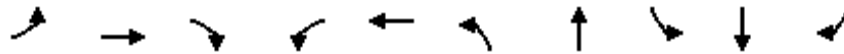
Timing Plan: PM Peak



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	232	735	1107	761	316	299	293
v/c Ratio	0.65	0.35	0.41	0.71	0.82	0.69	0.58
Control Delay	41.8	13.0	18.7	5.8	48.4	25.1	14.3
Queue Delay	0.0	2.3	0.0	0.4	0.0	0.0	0.0
Total Delay	41.8	15.4	18.7	6.2	48.4	25.1	14.3
Queue Length 50th (ft)	57	78	128	0	174	96	48
Queue Length 95th (ft)	#141	252	155	76	263	185	123
Internal Link Dist (ft)		191	282			601	
Turn Bay Length (ft)	180						385
Base Capacity (vph)	356	2074	2757	1082	468	504	577
Starvation Cap Reductn	0	1168	0	72	0	0	0
Spillback Cap Reductn	0	0	26	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.81	0.41	0.75	0.68	0.59	0.51

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	244	907	94	7	1324	238	242	27	94	378
v/c Ratio	1.04	0.42	0.09	0.06	0.86	1.02	0.40	0.12	0.23	0.92
Control Delay	105.3	9.1	2.1	35.1	26.8	95.9	26.8	22.6	31.4	50.8
Queue Delay	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.3	9.6	2.1	35.1	26.8	95.9	26.8	22.6	31.4	50.8
Queue Length 50th (ft)	~125	88	1	3	276	99	42	10	21	137
Queue Length 95th (ft)	#282	216	21	16	#475	#246	85	28	42	#275
Internal Link Dist (ft)		282			262		335		141	
Turn Bay Length (ft)	125		130	105		100		75		110
Base Capacity (vph)	235	2140	1081	128	1535	233	1685	229	1724	411
Starvation Cap Reductn	0	695	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.63	0.09	0.05	0.86	1.02	0.14	0.12	0.05	0.92

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	103	821	19	1367	173	331
v/c Ratio	0.54	0.34	0.05	0.58	0.36	0.68
Control Delay	19.9	5.0	4.6	6.9	26.6	30.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.9	5.0	4.6	6.9	26.6	30.3
Queue Length 50th (ft)	19	62	2	132	34	60
Queue Length 95th (ft)	#113	116	10	241	62	103
Internal Link Dist (ft)		117		103	71	90
Turn Bay Length (ft)	95		100			
Base Capacity (vph)	192	2400	387	2373	892	839
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.34	0.05	0.58	0.19	0.39

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	70	866	18	1288	103	153
v/c Ratio	0.27	0.33	0.04	0.49	0.37	0.46
Control Delay	5.6	2.7	2.4	3.6	25.2	20.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.6	2.7	2.4	3.6	25.2	20.9
Queue Length 50th (ft)	6	40	1	72	15	17
Queue Length 95th (ft)	24	71	6	127	37	44
Internal Link Dist (ft)		211		604	288	289
Turn Bay Length (ft)	95		110			
Base Capacity (vph)	257	2642	421	2649	837	917
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.33	0.04	0.49	0.12	0.17

Intersection Summary

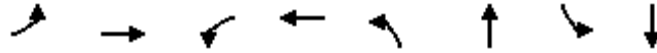


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	42	837	39	1181	92	356	36	259
v/c Ratio	0.34	0.48	0.17	0.68	0.46	0.70	0.28	0.66
Control Delay	24.4	14.2	15.2	17.6	39.9	30.8	40.7	32.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.4	14.2	15.2	17.6	39.9	30.8	40.7	32.9
Queue Length 50th (ft)	11	128	10	213	40	150	16	104
Queue Length 95th (ft)	50	223	35	358	92	238	48	180
Internal Link Dist (ft)		604		590		203		219
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	123	1726	230	1738	200	857	133	820
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.48	0.17	0.68	0.46	0.42	0.27	0.32
Intersection Summary								



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	82	820	35	1044	140	201	43	231
v/c Ratio	0.30	0.36	0.10	0.46	0.68	0.29	0.20	0.32
Control Delay	10.4	6.3	6.6	7.2	44.6	23.0	26.0	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.4	6.3	6.6	7.2	44.6	23.0	26.0	14.4
Queue Length 50th (ft)	13	68	5	97	61	37	17	26
Queue Length 95th (ft)	52	146	20	202	119	64	43	53
Internal Link Dist (ft)		590		611		374		284
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	272	2271	363	2285	388	1308	410	1287
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.36	0.10	0.46	0.36	0.15	0.10	0.18

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	66	796	40	894	120	449	28	233
v/c Ratio	0.20	0.36	0.11	0.40	0.56	0.62	0.22	0.32
Control Delay	7.6	6.1	6.3	6.4	34.8	25.9	26.7	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.6	6.1	6.3	6.4	34.8	25.9	26.7	17.0
Queue Length 50th (ft)	9	62	5	74	46	82	10	31
Queue Length 95th (ft)	34	126	21	147	95	125	31	58
Internal Link Dist (ft)		611		319		259		296
Turn Bay Length (ft)	100		100		80			
Base Capacity (vph)	324	2227	366	2234	500	1634	291	1627
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.36	0.11	0.40	0.24	0.27	0.10	0.14

Intersection Summary

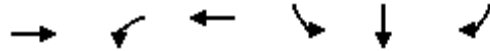


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	75	737	68	612	77	397	145	625
v/c Ratio	0.38	0.46	0.35	0.39	0.51	0.37	0.58	0.59
Control Delay	33.5	13.7	32.8	13.1	30.7	16.1	28.3	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.5	13.7	32.8	13.1	30.7	16.1	28.3	19.2
Queue Length 50th (ft)	27	96	24	77	24	58	47	102
Queue Length 95th (ft)	70	174	65	142	64	90	100	147
Internal Link Dist (ft)		469		380		583		574
Turn Bay Length (ft)	150		95		95		85	
Base Capacity (vph)	209	1586	209	1588	230	1591	379	1592
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.46	0.33	0.39	0.33	0.25	0.38	0.39

Intersection Summary



Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	8	889	763	161
v/c Ratio	0.02	0.37	0.32	0.53
Control Delay	4.0	4.8	4.4	26.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	4.0	4.8	4.4	26.6
Queue Length 50th (ft)	1	54	43	48
Queue Length 95th (ft)	5	102	84	97
Internal Link Dist (ft)		331	707	240
Turn Bay Length (ft)	110			
Base Capacity (vph)	424	2430	2404	901
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.02	0.37	0.32	0.18
Intersection Summary				



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1027	407	559	418	420	175
v/c Ratio	0.52	0.77	0.30	0.80	0.84	0.29
Control Delay	20.8	37.6	16.8	36.2	39.4	4.1
Queue Delay	0.0	0.0	0.7	0.4	0.5	0.0
Total Delay	20.8	37.6	17.6	36.6	39.9	4.1
Queue Length 50th (ft)	102	90	121	191	202	0
Queue Length 95th (ft)	146	m147	m154	285	304	38
Internal Link Dist (ft)	707		191		566	
Turn Bay Length (ft)		160				215
Base Capacity (vph)	1970	595	1887	621	596	693
Starvation Cap Reductn	0	0	952	0	0	0
Spillback Cap Reductn	3	0	0	30	29	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.68	0.60	0.71	0.74	0.25

Intersection Summary

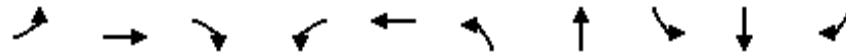
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	175	1244	680	231	240	384	385
v/c Ratio	0.62	0.64	0.27	0.30	0.49	0.86	0.73
Control Delay	45.7	6.5	17.5	3.9	25.3	41.9	26.3
Queue Delay	0.0	0.9	0.0	0.0	0.0	0.0	0.0
Total Delay	45.7	7.4	17.5	3.9	25.3	41.9	26.3
Queue Length 50th (ft)	40	144	70	0	96	167	126
Queue Length 95th (ft)	m#75	173	90	43	165	#325	231
Internal Link Dist (ft)		191	282			601	
Turn Bay Length (ft)	180						385
Base Capacity (vph)	290	1986	2635	778	552	501	581
Starvation Cap Reductn	0	434	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.80	0.26	0.30	0.43	0.77	0.66

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	142	1685	152	2	678	67	92	35	125	201
v/c Ratio	0.58	0.72	0.13	0.02	0.40	0.28	0.17	0.14	0.35	0.34
Control Delay	43.4	12.6	2.2	38.0	14.8	30.1	31.3	27.8	37.9	6.6
Queue Delay	0.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	27.2	2.2	38.0	14.8	30.1	31.3	27.8	37.9	6.6
Queue Length 50th (ft)	70	240	7	1	112	28	21	15	32	9
Queue Length 95th (ft)	130	488	33	8	170	64	44	39	60	55
Internal Link Dist (ft)		282			262		335		141	
Turn Bay Length (ft)	125		130	105		100		75		110
Base Capacity (vph)	305	2327	1156	122	1714	236	1614	245	1636	643
Starvation Cap Reductn	0	662	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	1.01	0.13	0.02	0.40	0.28	0.06	0.14	0.08	0.31

Intersection Summary

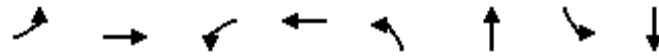


Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	96	1595	13	672	55	288
v/c Ratio	0.20	0.63	0.09	0.27	0.12	0.58
Control Delay	4.9	6.7	5.2	3.8	22.3	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.9	6.7	5.2	3.8	22.3	24.6
Queue Length 50th (ft)	10	134	1	37	9	43
Queue Length 95th (ft)	31	238	8	69	23	78
Internal Link Dist (ft)		257		94	68	90
Turn Bay Length (ft)	95		100			
Base Capacity (vph)	491	2518	146	2506	1082	1110
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.63	0.09	0.27	0.05	0.26
Intersection Summary						



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	191	1504	15	710	66	256
v/c Ratio	0.39	0.58	0.08	0.28	0.15	0.54
Control Delay	6.6	5.4	4.4	3.3	21.9	22.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.6	5.4	4.4	3.3	21.9	22.4
Queue Length 50th (ft)	21	108	1	35	10	34
Queue Length 95th (ft)	64	191	7	65	25	66
Internal Link Dist (ft)		236		604	288	289
Turn Bay Length (ft)	95		110			
Base Capacity (vph)	488	2601	178	2565	1138	1133
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.58	0.08	0.28	0.06	0.23

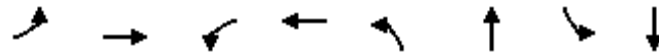
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	84	1423	44	645	16	140	36	196
v/c Ratio	0.20	0.66	0.36	0.30	0.09	0.42	0.19	0.48
Control Delay	9.3	11.3	21.5	7.2	27.3	22.7	27.2	22.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.3	11.3	21.5	7.2	27.3	22.7	27.2	22.0
Queue Length 50th (ft)	8	107	5	35	4	31	10	48
Queue Length 95th (ft)	47	334	#55	115	23	89	38	118
Internal Link Dist (ft)		604		590		203		219
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	412	2153	122	2153	177	945	190	950
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.66	0.36	0.30	0.09	0.15	0.19	0.21

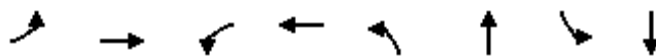
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



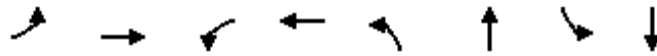
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	62	1310	47	667	32	82	47	153
v/c Ratio	0.12	0.50	0.19	0.25	0.22	0.19	0.31	0.34
Control Delay	3.3	4.2	5.1	2.9	27.5	17.7	29.3	21.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.3	4.2	5.1	2.9	27.5	17.7	29.3	21.3
Queue Length 50th (ft)	5	73	4	28	11	9	16	21
Queue Length 95th (ft)	16	132	17	54	33	26	43	45
Internal Link Dist (ft)		590		611		374		284
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	525	2628	242	2632	481	1415	517	1458
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.50	0.19	0.25	0.07	0.06	0.09	0.10

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	75	1204	59	664	55	129	36	293
v/c Ratio	0.15	0.49	0.23	0.27	0.38	0.23	0.19	0.51
Control Delay	4.3	4.9	6.3	3.7	31.0	17.8	24.8	24.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	4.9	6.3	3.7	31.0	17.8	24.8	24.1
Queue Length 50th (ft)	7	75	6	34	19	16	12	46
Queue Length 95th (ft)	22	133	23	63	49	37	34	80
Internal Link Dist (ft)		611		585		259		296
Turn Bay Length (ft)	100		100		80		50	
Base Capacity (vph)	496	2465	256	2500	407	1529	527	1553
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.49	0.23	0.27	0.14	0.08	0.07	0.19

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	115	750	86	842	147	810	131	543
v/c Ratio	0.79	0.53	0.59	0.65	0.61	0.63	0.95	0.42
Control Delay	71.9	19.0	51.8	21.2	29.3	19.2	90.3	15.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.9	19.0	51.8	21.2	29.3	19.2	90.3	15.5
Queue Length 50th (ft)	54	142	39	164	49	138	52	80
Queue Length 95th (ft)	#144	201	#105	231	110	191	#154	117
Internal Link Dist (ft)		469		380		583		574
Turn Bay Length (ft)	150		95		95		85	
Base Capacity (vph)	146	1409	146	1292	299	1595	171	1591
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.53	0.59	0.65	0.49	0.51	0.77	0.34

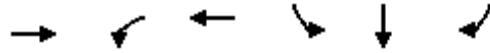
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	15	954	1190	106
v/c Ratio	0.05	0.33	0.42	0.50
Control Delay	3.2	3.2	3.6	39.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	3.2	3.2	3.6	39.5
Queue Length 50th (ft)	1	58	77	48
Queue Length 95th (ft)	7	102	137	96
Internal Link Dist (ft)		331	707	240
Turn Bay Length (ft)	110			
Base Capacity (vph)	313	2870	2816	620
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.05	0.33	0.42	0.17

Intersection Summary



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1075	646	1018	190	190	171
v/c Ratio	0.41	0.82	0.40	0.71	0.73	0.47
Control Delay	19.8	37.5	5.1	53.1	53.3	13.8
Queue Delay	0.3	0.6	0.5	0.4	0.5	0.0
Total Delay	20.1	38.0	5.6	53.5	53.8	13.8
Queue Length 50th (ft)	118	212	1	122	123	20
Queue Length 95th (ft)	185	273	258	183	189	75
Internal Link Dist (ft)	707		191		566	
Turn Bay Length (ft)		160				215
Base Capacity (vph)	2627	1029	2550	385	370	462
Starvation Cap Reductn	0	120	989	0	0	0
Spillback Cap Reductn	773	0	0	33	32	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.71	0.65	0.54	0.56	0.37

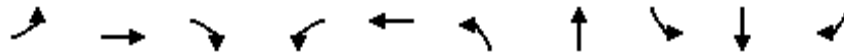
Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	413	988	1119	776	376	366	341
v/c Ratio	0.82	0.46	0.44	0.74	0.85	0.84	0.68
Control Delay	51.5	16.8	23.9	8.1	52.1	47.3	28.1
Queue Delay	1.3	5.0	0.3	0.6	0.0	0.1	0.0
Total Delay	52.8	21.7	24.2	8.7	52.1	47.4	28.1
Queue Length 50th (ft)	125	218	159	22	230	209	133
Queue Length 95th (ft)	#207	302	189	151	#369	#359	234
Internal Link Dist (ft)		191	282			601	
Turn Bay Length (ft)	180						385
Base Capacity (vph)	522	2174	2604	1059	501	488	551
Starvation Cap Reductn	26	1102	0	73	0	0	0
Spillback Cap Reductn	0	0	792	0	0	4	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.92	0.62	0.79	0.75	0.76	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	246	1016	105	6	1324	260	266	25	98	382
v/c Ratio	0.83	0.43	0.09	0.05	0.80	1.16	0.45	0.12	0.25	0.83
Control Delay	59.8	8.5	2.0	40.7	24.6	141.0	31.7	27.0	36.2	39.5
Queue Delay	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	9.2	2.0	40.7	24.6	141.0	31.7	27.0	36.2	39.5
Queue Length 50th (ft)	128	102	2	3	299	~145	56	11	26	157
Queue Length 95th (ft)	#280	247	23	16	451	#316	104	31	49	256
Internal Link Dist (ft)		282			262		335		141	
Turn Bay Length (ft)	125		130	105		100		75		110
Base Capacity (vph)	297	2390	1180	118	1664	225	1550	217	1589	463
Starvation Cap Reductn	0	946	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.70	0.09	0.05	0.80	1.16	0.17	0.12	0.06	0.83

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	98	966	12	1440	265	351
v/c Ratio	0.53	0.38	0.03	0.57	0.55	0.75
Control Delay	20.5	5.6	5.1	7.4	35.8	38.8
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay	20.5	5.6	5.1	7.6	35.8	38.8
Queue Length 50th (ft)	21	90	2	165	68	83
Queue Length 95th (ft)	#119	159	8	287	107	131
Internal Link Dist (ft)		257		86	70	90
Turn Bay Length (ft)	95		100			
Base Capacity (vph)	185	2551	345	2532	733	692
Starvation Cap Reductn	0	0	0	384	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.38	0.03	0.67	0.36	0.51

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	259	870	18	1380	207	379
v/c Ratio	1.23	0.33	0.05	0.53	0.43	0.73
Control Delay	158.3	4.9	4.6	6.4	33.0	35.7
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay	158.3	4.9	4.6	6.6	33.0	35.7
Queue Length 50th (ft)	~187	73	2	143	51	84
Queue Length 95th (ft)	#247	133	10	255	84	133
Internal Link Dist (ft)		211		604	288	289
Turn Bay Length (ft)	95		110			
Base Capacity (vph)	210	2610	399	2593	717	751
Starvation Cap Reductn	0	0	0	397	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.23	0.33	0.05	0.63	0.29	0.50

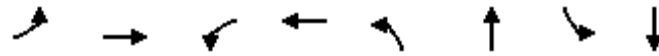
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	41	850	48	1194	91	380	41	260
v/c Ratio	0.29	0.44	0.19	0.62	0.43	0.73	0.32	0.67
Control Delay	21.5	14.1	15.9	17.0	42.7	36.3	47.8	39.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	14.1	15.9	17.0	42.7	36.3	47.8	39.2
Queue Length 50th (ft)	12	144	13	235	46	193	22	128
Queue Length 95th (ft)	49	245	44	387	100	291	60	213
Internal Link Dist (ft)		604		590		203		219
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	143	1927	257	1939	239	768	140	695
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.44	0.19	0.62	0.38	0.49	0.29	0.37
Intersection Summary								



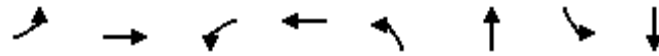
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	81	845	35	1082	134	200	42	223
v/c Ratio	0.28	0.34	0.09	0.43	0.68	0.30	0.20	0.32
Control Delay	8.9	5.6	5.8	6.3	48.3	26.2	29.2	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.9	5.6	5.8	6.3	48.3	26.2	29.2	16.2
Queue Length 50th (ft)	12	69	5	98	64	42	18	28
Queue Length 95th (ft)	48	141	19	196	123	70	45	57
Internal Link Dist (ft)		590		611		374		284
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	290	2487	391	2495	428	1450	453	1421
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.34	0.09	0.43	0.31	0.14	0.09	0.16

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	72	810	47	981	116	527	27	228
v/c Ratio	0.23	0.34	0.12	0.41	0.51	0.67	0.26	0.29
Control Delay	8.5	6.3	6.6	6.9	35.6	31.3	32.4	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	6.3	6.6	6.9	35.6	31.3	32.4	19.2
Queue Length 50th (ft)	12	73	7	96	52	120	11	36
Queue Length 95th (ft)	39	133	24	171	102	171	35	64
Internal Link Dist (ft)		611		319		259		296
Turn Bay Length (ft)	100		100		80			
Base Capacity (vph)	309	2380	383	2385	474	1579	213	1576
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.34	0.12	0.41	0.24	0.33	0.13	0.14

Intersection Summary

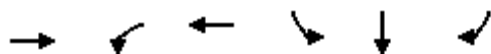


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	75	739	71	616	77	399	147	625
v/c Ratio	0.38	0.47	0.36	0.39	0.51	0.38	0.59	0.59
Control Delay	33.6	13.8	33.1	13.2	30.5	16.0	28.7	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.6	13.8	33.1	13.2	30.5	16.0	28.7	19.2
Queue Length 50th (ft)	27	96	25	77	24	58	48	102
Queue Length 95th (ft)	70	175	67	143	64	91	102	147
Internal Link Dist (ft)		469		380		583		574
Turn Bay Length (ft)	150		95		95		85	
Base Capacity (vph)	209	1585	209	1587	229	1590	376	1591
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.47	0.34	0.39	0.34	0.25	0.39	0.39

Intersection Summary



Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	8	896	770	161
v/c Ratio	0.02	0.37	0.32	0.53
Control Delay	4.0	4.8	4.5	26.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	4.0	4.8	4.5	26.6
Queue Length 50th (ft)	1	54	44	48
Queue Length 95th (ft)	5	103	84	97
Internal Link Dist (ft)		331	707	240
Turn Bay Length (ft)	110			
Base Capacity (vph)	420	2430	2404	901
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.02	0.37	0.32	0.18
Intersection Summary				



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1034	414	565	422	423	175
v/c Ratio	0.53	0.77	0.30	0.81	0.84	0.29
Control Delay	21.1	37.8	17.2	36.5	39.6	4.1
Queue Delay	0.0	0.0	0.7	0.4	0.6	0.0
Total Delay	21.1	37.8	17.9	36.9	40.2	4.1
Queue Length 50th (ft)	104	92	123	193	203	0
Queue Length 95th (ft)	147	m150	m156	288	307	38
Internal Link Dist (ft)	707		191		566	
Turn Bay Length (ft)		160				215
Base Capacity (vph)	1950	595	1883	621	596	693
Starvation Cap Reductn	0	0	945	0	0	0
Spillback Cap Reductn	7	0	0	30	29	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.70	0.60	0.71	0.75	0.25

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Gateway Downtown San Bernardino
4: I-215 NB Ramps & 5th St.

Horizon Year (2040) + Project AM

Timing Plan: AM Peak



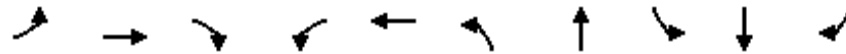
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	175	1257	693	237	240	387	388
v/c Ratio	0.62	0.64	0.27	0.31	0.49	0.86	0.74
Control Delay	45.6	6.5	17.5	3.8	25.4	42.9	26.7
Queue Delay	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.6	7.5	17.5	3.8	25.4	42.9	26.7
Queue Length 50th (ft)	40	147	72	0	96	168	127
Queue Length 95th (ft)	m74	176	91	43	165	#331	234
Internal Link Dist (ft)		191	282			601	
Turn Bay Length (ft)	180						385
Base Capacity (vph)	290	1980	2627	779	550	498	579
Starvation Cap Reductn	0	436	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.81	0.26	0.30	0.44	0.78	0.67

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	142	1704	152	3	698	67	95	37	125	201
v/c Ratio	0.58	0.73	0.13	0.03	0.41	0.28	0.18	0.15	0.35	0.34
Control Delay	43.4	12.9	2.3	38.0	14.9	30.1	30.5	27.9	37.9	7.0
Queue Delay	0.0	16.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	29.3	2.3	38.0	14.9	30.1	30.5	27.9	37.9	7.0
Queue Length 50th (ft)	70	245	7	2	116	28	21	15	32	11
Queue Length 95th (ft)	130	499	34	10	175	64	45	41	60	58
Internal Link Dist (ft)		282			262		335		141	
Turn Bay Length (ft)	125		130	105		100		75		110
Base Capacity (vph)	305	2327	1155	122	1715	236	1608	245	1636	639
Starvation Cap Reductn	0	654	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	1.02	0.13	0.02	0.41	0.28	0.06	0.15	0.08	0.31

Intersection Summary

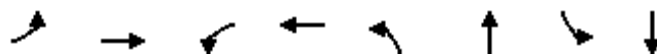


Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	108	1603	25	696	78	291
v/c Ratio	0.23	0.64	0.17	0.28	0.18	0.58
Control Delay	5.3	6.8	7.3	3.9	22.0	24.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.3	6.8	7.3	3.9	22.0	24.8
Queue Length 50th (ft)	12	137	3	38	12	44
Queue Length 95th (ft)	35	244	14	73	29	80
Internal Link Dist (ft)		257		94	68	90
Turn Bay Length (ft)	95		100			
Base Capacity (vph)	476	2511	143	2495	999	1098
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.64	0.17	0.28	0.08	0.27
Intersection Summary						



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	192	1518	15	729	68	258
v/c Ratio	0.40	0.58	0.09	0.28	0.16	0.54
Control Delay	6.9	5.5	4.4	3.4	22.0	22.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.9	5.5	4.4	3.4	22.0	22.2
Queue Length 50th (ft)	22	110	1	36	11	34
Queue Length 95th (ft)	66	196	7	67	26	66
Internal Link Dist (ft)		236		604	288	289
Turn Bay Length (ft)	95		110			
Base Capacity (vph)	477	2599	176	2566	1124	1133
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.58	0.09	0.28	0.06	0.23

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	85	1435	44	660	18	140	36	198
v/c Ratio	0.21	0.67	0.36	0.31	0.11	0.42	0.19	0.49
Control Delay	9.5	11.5	21.5	7.3	27.5	22.7	27.1	22.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	11.5	21.5	7.3	27.5	22.7	27.1	22.0
Queue Length 50th (ft)	8	108	5	36	5	31	10	49
Queue Length 95th (ft)	47	340	#55	119	25	90	37	119
Internal Link Dist (ft)		604		590		203		219
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	404	2151	122	2151	177	945	191	948
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.67	0.36	0.31	0.10	0.15	0.19	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	63	1320	47	678	34	82	47	155
v/c Ratio	0.12	0.50	0.20	0.26	0.24	0.19	0.31	0.34
Control Delay	3.3	4.2	5.2	2.9	27.8	17.7	29.3	21.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.3	4.2	5.2	2.9	27.8	17.7	29.3	21.0
Queue Length 50th (ft)	5	73	4	29	12	9	16	21
Queue Length 95th (ft)	16	133	17	55	34	26	43	45
Internal Link Dist (ft)		590		611		374		284
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	520	2627	240	2632	481	1416	517	1456
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.50	0.20	0.26	0.07	0.06	0.09	0.11

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	1211	59	673	57	129	36	295
v/c Ratio	0.16	0.49	0.23	0.27	0.39	0.22	0.19	0.50
Control Delay	4.4	5.0	6.6	3.8	31.3	17.7	24.6	23.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.4	5.0	6.6	3.8	31.3	17.7	24.6	23.8
Queue Length 50th (ft)	7	76	6	35	19	16	12	46
Queue Length 95th (ft)	24	142	25	67	50	36	34	80
Internal Link Dist (ft)		611		585		259		296
Turn Bay Length (ft)	100		100		80		50	
Base Capacity (vph)	490	2459	252	2494	405	1526	526	1551
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.49	0.23	0.27	0.14	0.08	0.07	0.19
Intersection Summary								



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	115	753	89	846	147	813	134	543
v/c Ratio	0.79	0.54	0.61	0.66	0.60	0.62	0.96	0.42
Control Delay	72.9	19.2	53.8	21.5	28.8	19.0	91.4	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.9	19.2	53.8	21.5	28.8	19.0	91.4	15.4
Queue Length 50th (ft)	54	144	41	167	49	138	54	80
Queue Length 95th (ft)	#144	202	#109	231	110	192	#158	117
Internal Link Dist (ft)		469		380		583		574
Turn Bay Length (ft)	150		95		95		85	
Base Capacity (vph)	145	1401	145	1285	297	1584	171	1581
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.54	0.61	0.66	0.49	0.51	0.78	0.34

Intersection Summary

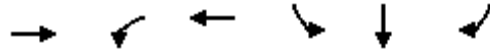
95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	15	963	1198	106
v/c Ratio	0.05	0.34	0.43	0.50
Control Delay	3.2	3.2	3.6	39.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	3.2	3.2	3.6	39.5
Queue Length 50th (ft)	1	59	78	48
Queue Length 95th (ft)	7	103	138	96
Internal Link Dist (ft)		331	707	240
Turn Bay Length (ft)	110			
Base Capacity (vph)	310	2870	2816	620
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.05	0.34	0.43	0.17
Intersection Summary				

Gateway Downtown San Bernardino
 3: I-215 SB Ramps & 5th St.

Horizon Year (2040) + Project PM
 Timing Plan: PM Peak



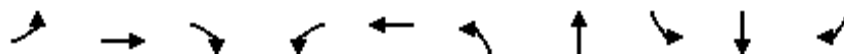
Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1085	653	1025	194	191	173
v/c Ratio	0.42	0.83	0.40	0.72	0.73	0.48
Control Delay	20.2	37.3	5.2	53.6	53.4	14.2
Queue Delay	0.3	0.6	0.5	0.5	0.5	0.0
Total Delay	20.5	37.9	5.7	54.0	53.9	14.2
Queue Length 50th (ft)	120	214	1	125	124	22
Queue Length 95th (ft)	188	275	262	187	190	78
Internal Link Dist (ft)	707		191		566	
Turn Bay Length (ft)		160				215
Base Capacity (vph)	2608	1029	2545	385	370	461
Starvation Cap Reductn	0	120	989	0	0	0
Spillback Cap Reductn	814	0	0	33	32	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.72	0.66	0.55	0.57	0.38
Intersection Summary						



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	413	1004	1133	783	376	368	345
v/c Ratio	0.82	0.47	0.45	0.75	0.85	0.84	0.70
Control Delay	52.4	17.0	23.8	8.3	52.1	47.5	29.3
Queue Delay	1.4	5.6	0.3	0.6	0.0	0.1	0.0
Total Delay	53.8	22.6	24.1	8.9	52.1	47.7	29.3
Queue Length 50th (ft)	125	222	161	25	230	210	140
Queue Length 95th (ft)	#207	312	192	160	#369	#359	241
Internal Link Dist (ft)		191	282			601	
Turn Bay Length (ft)	180						385
Base Capacity (vph)	517	2174	2604	1059	501	489	548
Starvation Cap Reductn	26	1097	0	73	0	0	0
Spillback Cap Reductn	0	0	792	0	0	4	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.93	0.63	0.79	0.75	0.76	0.63

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	246	1038	105	8	1347	260	269	28	98	382
v/c Ratio	0.83	0.43	0.09	0.07	0.81	1.15	0.46	0.13	0.25	0.83
Control Delay	60.0	8.6	2.0	41.0	25.2	139.1	31.6	27.3	36.2	39.4
Queue Delay	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.0	9.3	2.0	41.0	25.2	139.1	31.6	27.3	36.2	39.4
Queue Length 50th (ft)	128	106	2	4	307	~145	56	12	26	157
Queue Length 95th (ft)	#281	254	24	19	#476	#316	105	33	49	256
Internal Link Dist (ft)		282			262		335		141	
Turn Bay Length (ft)	125		130	105		100		75		110
Base Capacity (vph)	296	2390	1179	118	1663	226	1549	217	1588	463
Starvation Cap Reductn	0	937	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.71	0.09	0.07	0.81	1.15	0.17	0.13	0.06	0.83

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	106	984	21	1465	293	355
v/c Ratio	0.60	0.39	0.06	0.58	0.64	0.76
Control Delay	26.5	5.9	5.5	7.8	38.5	39.7
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay	26.5	5.9	5.5	8.0	38.5	39.7
Queue Length 50th (ft)	25	95	3	175	77	85
Queue Length 95th (ft)	#139	168	13	305	120	134
Internal Link Dist (ft)		257		86	70	90
Turn Bay Length (ft)	95		100			
Base Capacity (vph)	176	2536	334	2517	672	669
Starvation Cap Reductn	0	0	0	376	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.39	0.06	0.68	0.44	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	261	887	18	1407	210	381
v/c Ratio	1.29	0.34	0.05	0.54	0.44	0.73
Control Delay	183.9	5.0	4.6	6.6	33.4	36.2
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay	183.9	5.0	4.6	6.8	33.4	36.2
Queue Length 50th (ft)	~195	76	2	151	52	86
Queue Length 95th (ft)	#261	138	11	267	86	135
Internal Link Dist (ft)		211		604	288	289
Turn Bay Length (ft)	95		110			
Base Capacity (vph)	202	2603	390	2586	701	746
Starvation Cap Reductn	0	0	0	391	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.29	0.34	0.05	0.64	0.30	0.51

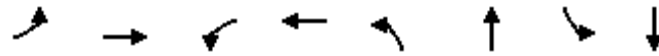
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

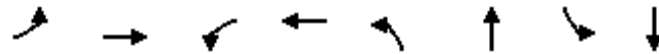
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	43	864	48	1215	94	380	41	263
v/c Ratio	0.31	0.45	0.19	0.63	0.45	0.73	0.32	0.67
Control Delay	23.0	14.2	16.0	17.2	43.3	36.2	47.7	39.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.0	14.2	16.0	17.2	43.3	36.2	47.7	39.1
Queue Length 50th (ft)	13	148	13	242	48	193	22	129
Queue Length 95th (ft)	51	250	44	397	103	291	60	215
Internal Link Dist (ft)		604		590		203		219
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	137	1926	251	1940	237	767	140	694
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.45	0.19	0.63	0.40	0.50	0.29	0.38
Intersection Summary								



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	83	857	35	1098	137	200	42	226
v/c Ratio	0.29	0.35	0.09	0.44	0.69	0.29	0.20	0.32
Control Delay	9.5	5.7	6.0	6.5	48.7	26.0	29.0	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	5.7	6.0	6.5	48.7	26.0	29.0	16.3
Queue Length 50th (ft)	13	72	5	103	66	42	18	28
Queue Length 95th (ft)	50	146	20	204	125	70	45	57
Internal Link Dist (ft)		590		611		374		284
Turn Bay Length (ft)	110		100		75		85	
Base Capacity (vph)	282	2477	382	2485	423	1444	452	1413
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.35	0.09	0.44	0.32	0.14	0.09	0.16
Intersection Summary								



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	74	818	47	992	119	527	27	231
v/c Ratio	0.24	0.34	0.12	0.42	0.52	0.67	0.26	0.29
Control Delay	8.7	6.3	6.6	6.9	36.2	31.3	32.4	19.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.7	6.3	6.6	6.9	36.2	31.3	32.4	19.0
Queue Length 50th (ft)	12	74	7	98	53	120	11	36
Queue Length 95th (ft)	41	135	25	174	105	171	35	65
Internal Link Dist (ft)		611		319		259		296
Turn Bay Length (ft)	100		100		80			
Base Capacity (vph)	304	2380	379	2385	471	1579	213	1574
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.34	0.12	0.42	0.25	0.33	0.13	0.15

Intersection Summary

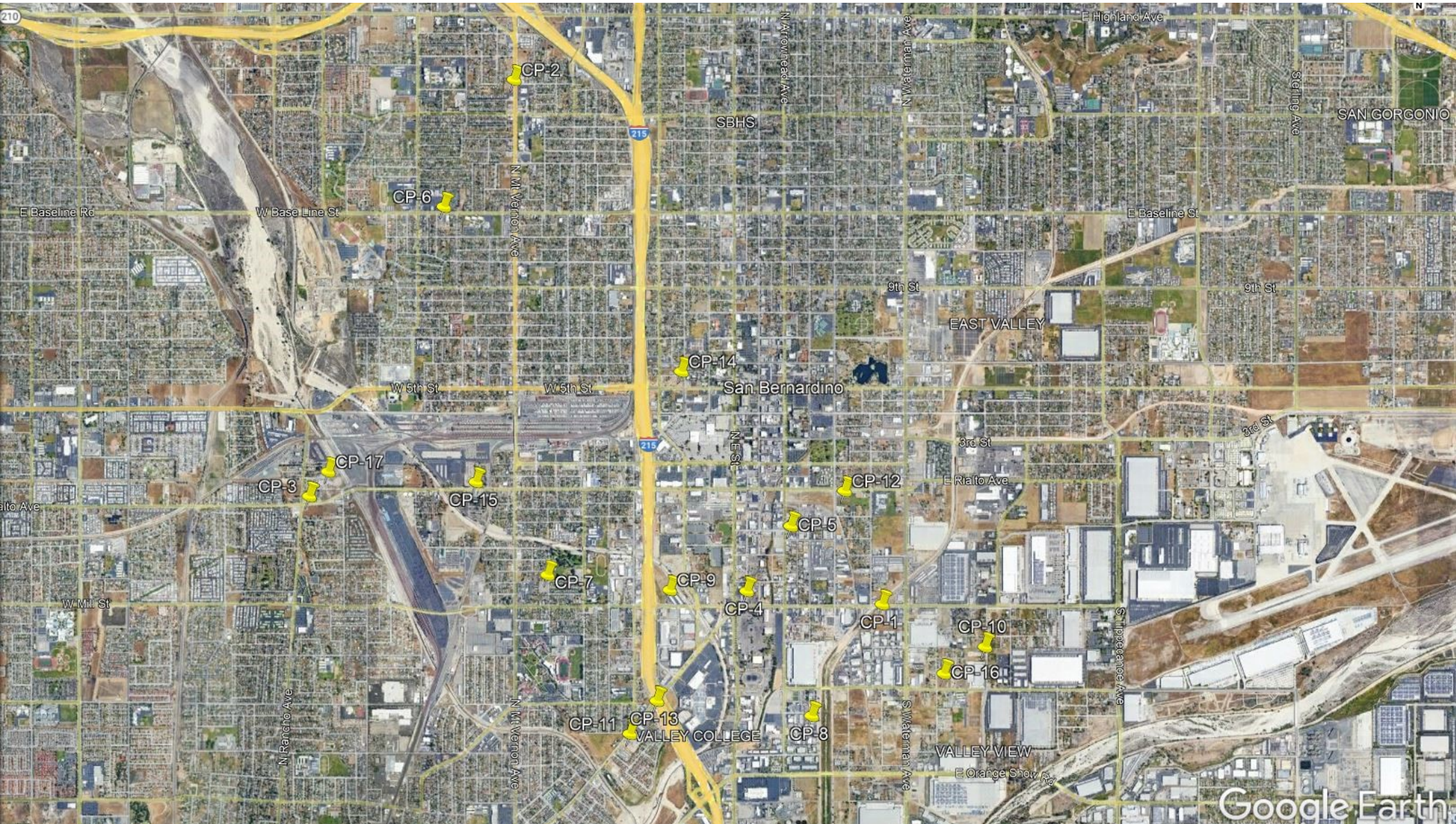
Appendix D: Other Projects Information

SONIC DRIVE-IN / QUICK QUACK CAR WASH

	PROJECT	LOCATION/ADDRESS	DESCRIPTION
1.	CUP 18-17	South side of E. Mill Street, west of S. Waterman Avenue	A request to allow the development, establishment, and operation of a truck and trailer storage and service facility within three (3) new separate buildings containing a total of approximately 24,630 square feet on a project site comprised of three (3) parcels containing a total of approximately 7.97 acres.
		APN: 0136-401-68, 69, and 80	
2.	CUP 18-26	1670 N. Mount Vernon Avenue	A request to allow the development, establishment, and operation of a drive-thru express carwash within a building containing approximately 1,670 square feet on a parcel containing approximately 0.36 acres.
		APN: 0143-081-01	
3.	CUP 20-07, PCN 20-01, and VAR 20-03	1991 W. Rialto Avenue	A request to allow the development, establishment and operation of a service station with a four (4) fueling pump islands and eight (8) fueling pump stations and a convenience store with an Alcoholic Beverage Control Type-20 (Off-Sale Beer and Wine) License containing approximately 2,230 square feet on a parcel containing approximately 0.43 acres; and allow a reduction of the required front yard landscaped setback from ten (10) feet to six (6) feet, and the rear yard setback from ten (10) feet to five (5) feet.
		APN: 0142-212-18	
4.	CUP 20-15	488 W. Mill Street	A request to allow the development, establishment and operation of an express drive-thru carwash facility containing approximately 2,194 square feet on a parcel containing approximately 0.46 acres.
		APN: 0136-191-21	
5.	DP-D 18-09	S. Arrowhead Avenue, at the intersection of Cluster Street	A request to allow the development and establishment of a truck and trailer storage facility on a property comprised of six (6) parcels containing a total of approximately 1.93 acres.
		APN: 0136-132-33, 35, 37, 39, 41, and 43	
6.	DP-D 19-05	1557 W. Baseline Street	A request to allow the conversion of an existing mortuary building containing approximately 7,974 square feet into a preschool/daycare center on a parcel containing approximately 1.3 acres.
		APN: 0139-053-36	
7.	DP-D 20-09	Intersection of Crooked Creek Lane and S. Eureka Avenue	A request to allow for the development and construction of eight (8) single-family residences with attached 2-car garages.
		APN: 0137-161-58, 59, 62, 61, 62, 63, 64, and 65	
8.	DP-D 21-05	998 S. Sierra Way	A request to allow an approximately 8,085 square foot addition to an existing industrial building containing approximately 34,860 square feet along with on-site improvements including a new recessed load dock on a property comprised of two (2) parcels containing a total of approximately 2.33 acres.
		APN: 0141-282-05 and 06	
9.	DP-D 21-06	766 W. Mill Street	A request to allow the development and establishment of a truck and trailer sales facility with a new sales building containing approximately 6,627 square feet on a property comprised of five (5) parcels containing a total of approximately 7.08 acres.
		APN: 0136-142-02; and 0136-151-06, 09, 11, and 19	
10.	DP-D 21-14	682 S. Valley View Avenue	A request the development and establishment of an industrial warehouse building containing approximately 65,963 square feet on a project site comprised of three (3) parcels containing a total of approximately 3.01 acres.
		APN: 0281-051-11, 12, and 15	

SONIC DRIVE-IN / QUICK QUACK CAR WASH

	PROJECT	LOCATION/ADDRESS	DESCRIPTION
11.	DP-P 18-02	South side of S. Inland Center Drive, approximately 300 feet north of N. Riverwalk Drive APN: 0141-201-02, 05, 10, and 12	A request to allow the development of an industrial warehouse building containing approximately 101,464 square feet on a property comprised of four (4) parcels containing a total of approximately 5.25 acres.
12.	DP-P 20-07	East side of S. Sierra Way, approximately 200 feet south of E. Rialto Avenue APN: 0136-061-35	A request to allow the development and establishment of a multiple-tenant office industrial park comprised of one (1) building containing approximately 30,805 square feet on a parcel containing approximately 1.71 acres.
13.	GPA 16-07, DCA (ZMA) 16-08, CUP 16-17, and PCN 17-01	841 S. Inland Center Drive APN: 0141-222-15 and 26	A request to change the General Plan Land Use Designation and Zoning District of two (2) parcels containing approximately 0.78 acres from Commercial General (CG-1) and Residential Suburban (RS) to Commercial General (CG-1); and, allow the development, establishment and operation of a service station with six (6) pump islands, a convenience store containing approximately 3,742 square feet with Type 21 (Off-Sale General) ABC License, and an express drive-thru carwash facility containing approximately 1,042 square feet, along with the construction of the required on-site and off-site improvements, on a property comprised of two (2) parcels containing a total of approximately 0.75 acres.
14.	SUB 20-04 (TPM 20216), CUP 20-12, AND PCN 20-02	North side of West 5 th Street, between North G Street and North H Street 0134-054-01, 02, 03, 04, 07, 08, 09, 20, 23, 24, 25, and 26	A request to allow the adjustment of eleven (11) parcels containing a total of approximately 3.17 acres and subdivision into three (3) parcels containing approximately 0.71 acres (Parcel 1), 0.60 acres (Parcel 2) and 0.90 acres (Parcel 3); and, allow the development, establishment, and operation of a restaurant with drive-thru containing approximately 2,200 square feet (Parcel 1), a restaurant with drive-thru containing approximately 2,800 square feet (Parcel 2), a service station with six (6) fueling islands and twelve (12) fueling pump stations, convenience store with an Alcoholic Beverage Control Type-20 (Off-Sale Beer and Wine) License containing approximately 3,062 square feet (Parcel 3), and restaurant with drive-thru containing approximately 2,400 square feet (Phase 3).
15.	SUB 20-07 (TPM 20305) and DP-D 20-05	1435 W. Rialto Avenue APN: 0137-011-01 and 31; 0137-051-27; 0137-052-46; and 0274-011-11, 12, 34, 35, 42, and 43	A request to allow the consolidation (Tentative Parcel Map 20305) of ten (10) parcels containing a total of approximately 12.56 acres into one (1) parcel; and to allow the development, establishment and operation of a truck and trailer parking facility.
16.	SUB 20-08 (TPM 20320) and DP-D 20-15	Northeast corner of E. Central Avenue and S. Foisy Street APN: 0280-032-07, 08, 09, 10, 11, 13, 14, 15, 37, and 38	A request to allow the consolidation of ten (10) parcels into one (1) parcel containing a total of approximately 5.35 acres; and allow the development and establishment of an industrial warehouse building containing approximately 104,850 square feet.
17.	SUB 21-01 (TPM 20334) and DP-D 20-01	157 N. Rancho Avenue APN: 0142-211-29	A request to allow the consolidation (Tentative Parcel Map 20334) of twenty-one (21) parcels containing approximately 14.48 acres into one (1) parcel; and to allow the development and establishment of a truck and trailer parking facility.



CP-2

CP-6

CP-14

CP-17

CP-3

CP-15

CP-12

CP-5

CP-7

CP-9

CP-4

CP-1

CP-10

CP-16

CP-11

CP-13

CP-8

SBHS

San Bernardino

EAST VALLEY

VALLEY COLLEGE

VALLEY VIEW

SAN GORGONIO

Google Earth

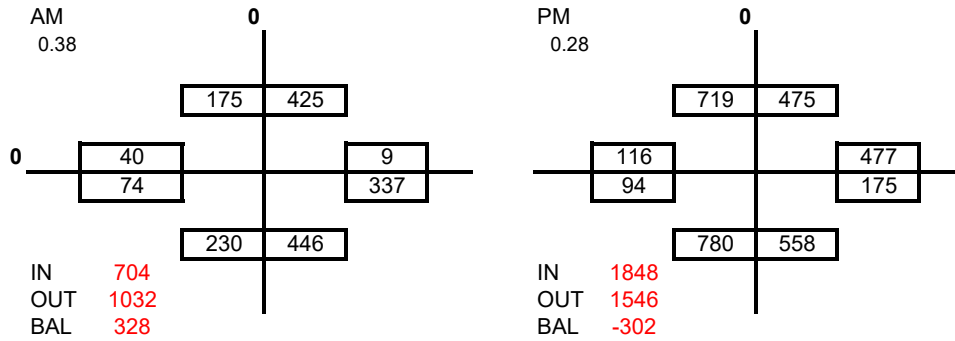
Appendix E: SBTAM Model Plots and B-Turns Worksheets

Project: Gateway Downtown
Condition: Build-out
Intersection Number: 1
North/South Street: H Street
East/West Street: Spruce Street

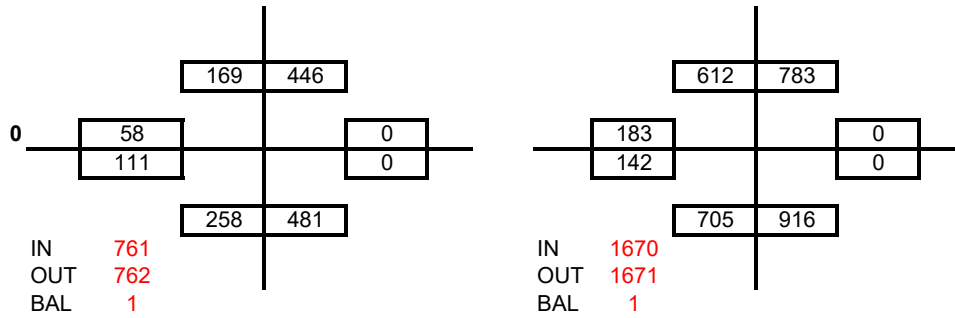
Model Base Year: 2012
Model Build-out Year: 2040
Total Difference: 28
Existing Year Counts: 2020
Difference Ex to B-O: 20
Percent: 0.71
Study Year Forecast: 2040 Build-out
Difference Ex to Forecast: 20

Date: 04/21/20

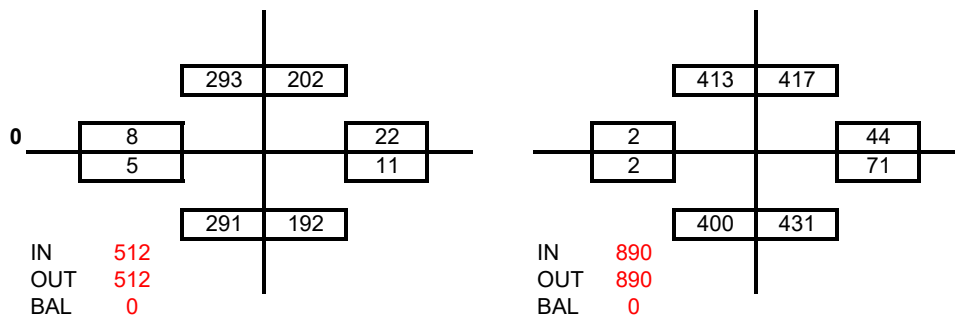
Model Base Year: 2012



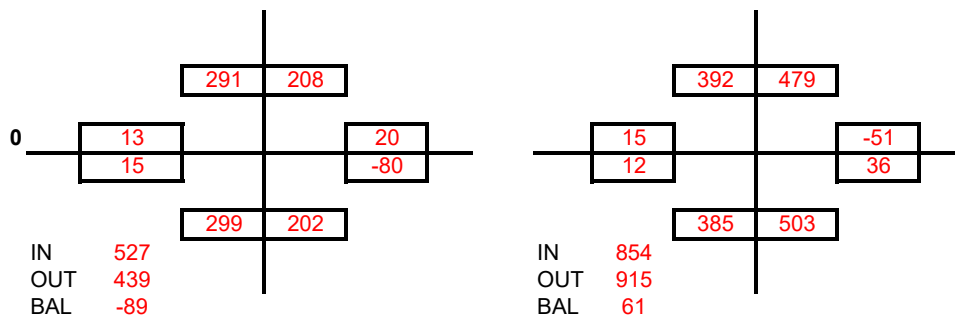
Model Build-out Year: 2040 Build-out



Existing Year Counts 2020



Study Year Forecast 2040 Build-out



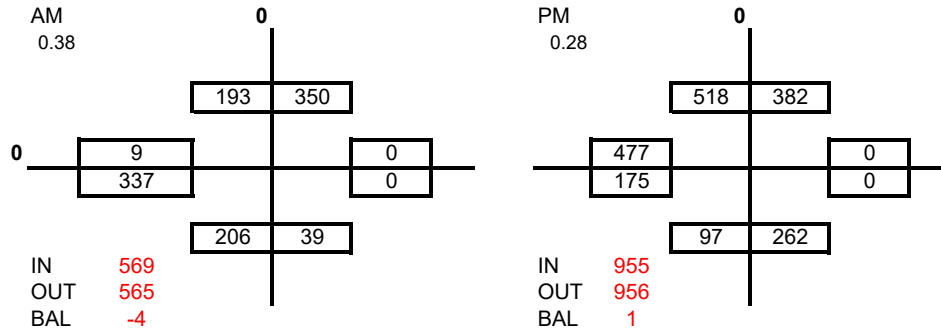
Project: Gateway Downtown
Condition: Build-out
Intersection Number: 2

North/South Street G Street
East/West Street Spruce Street

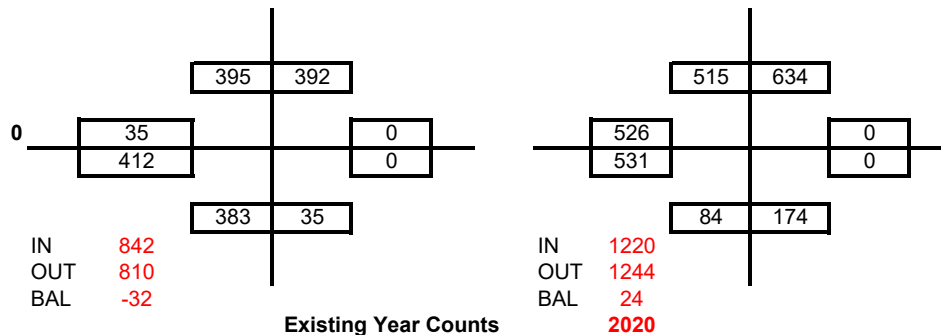
Model Base Year 2012
Model Build-out Year 2040
Total Difference 28
Existing Year Counts 2020
Difference Ex to B-O 20
Percent 0.71
Study Year Forecast 2040 Build-out
Difference Ex to Forecast 20

Date: 04/21/20

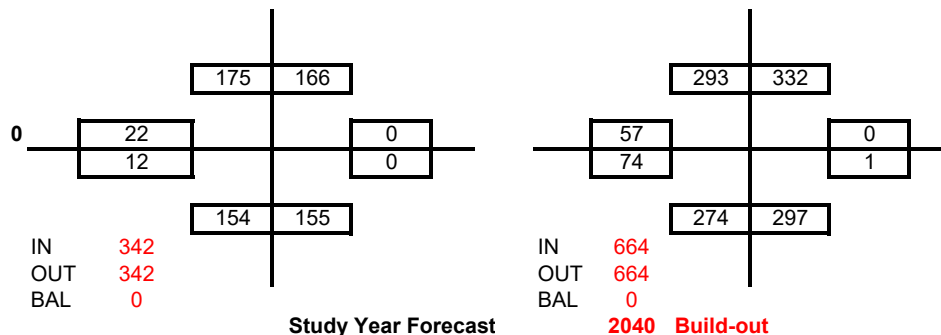
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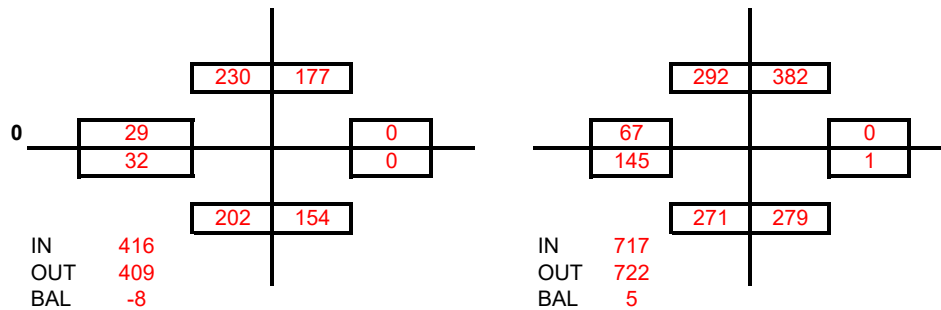
Model Build-out Year: 2040 Build-out



Existing Year Counts 2020



Study Year Forecast 2040 Build-out

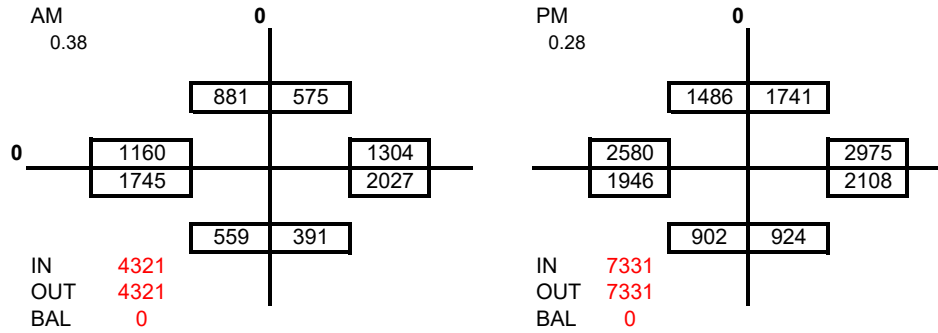


Project: Gateway Downtown
Condition: Build-out
Intersection Number: 3
North/South Street Mount Vernon Ave
East/West Street 5th Street

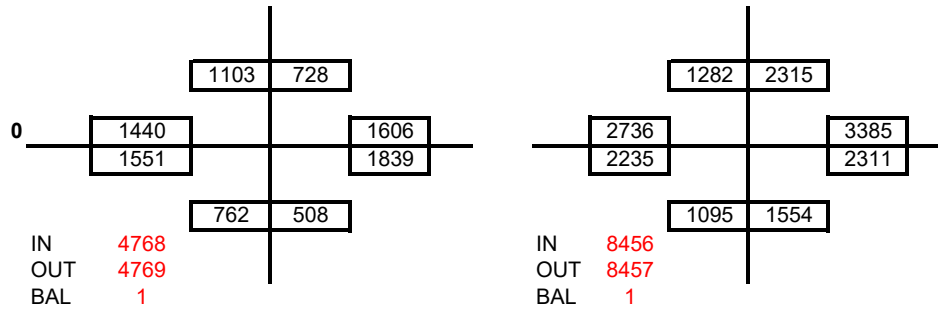
Model Base Year 2012
Model Build-out Year 2040
Total Difference 28
Existing Year Counts 2020
Difference Ex to B-O 20
Percent 0.71
Study Year Forecast 2040 Build-out
Difference Ex to Forecast 20

Date: 04/21/20

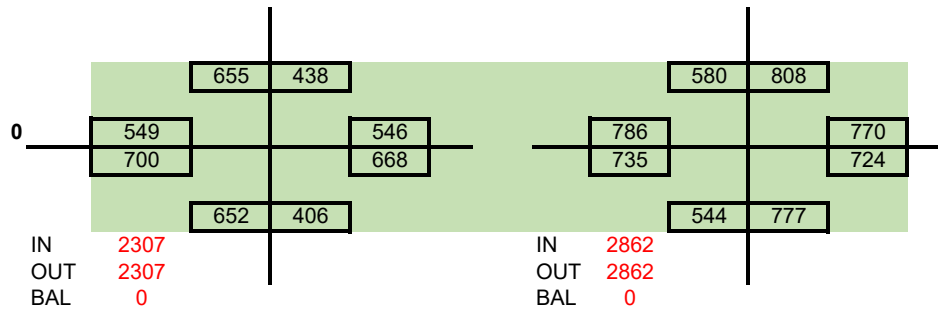
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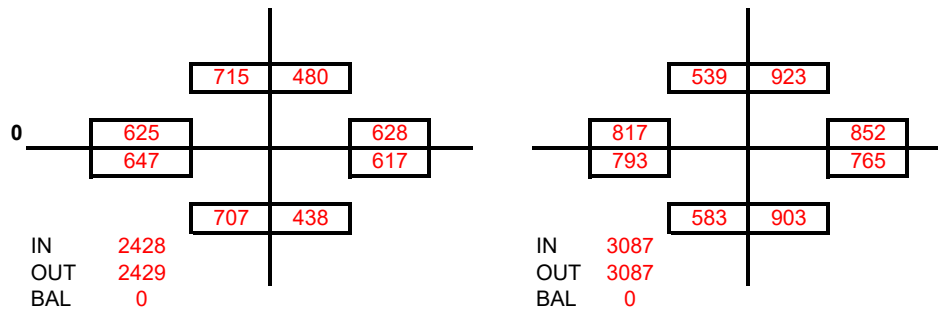
Model Build-out Year: 2040 Build-out



Existing Year Counts 2020



Study Year Forecast 2040 Build-out

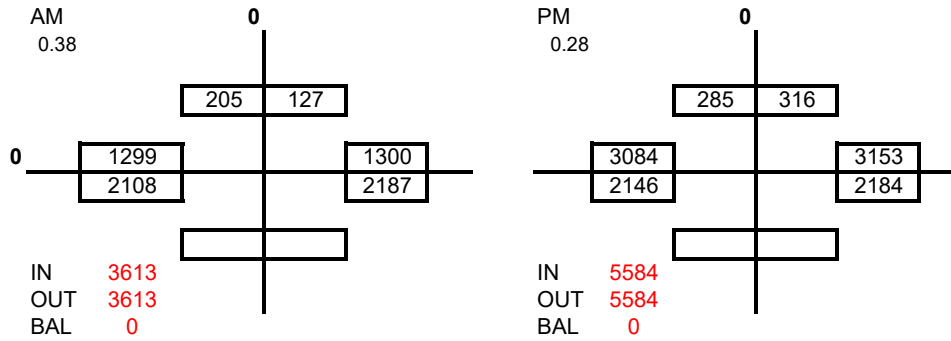


Project: Gateway Downtown
Condition: Build-out
Intersection Number: 4
North/South Street: J Street
East/West Street: 5th Street

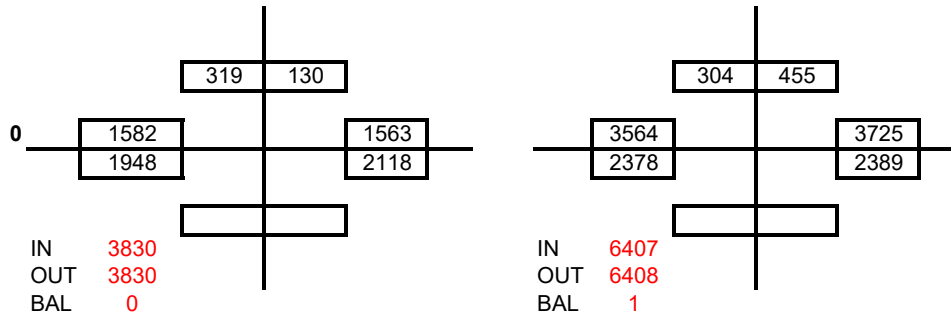
Model Base Year: 2012
Model Build-out Year: 2040
Total Difference: 28
Existing Year Counts: 2020
Difference Ex to B-O: 20
Percent: 0.71
Study Year Forecast: 2040 Build-out
Difference Ex to Forecast: 20

Date: 04/21/20

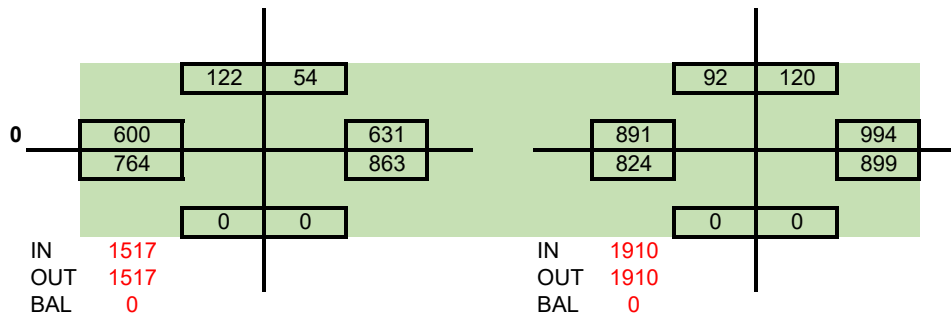
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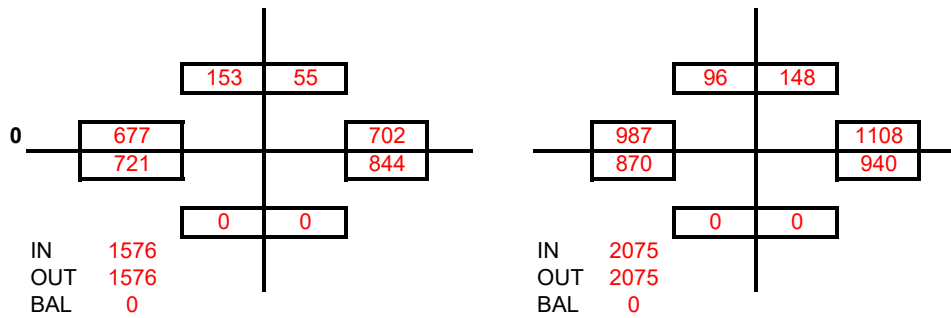
Model Build-out Year: 2040 Build-out



Existing Year Counts 2020



Study Year Forecast 2040 Build-out

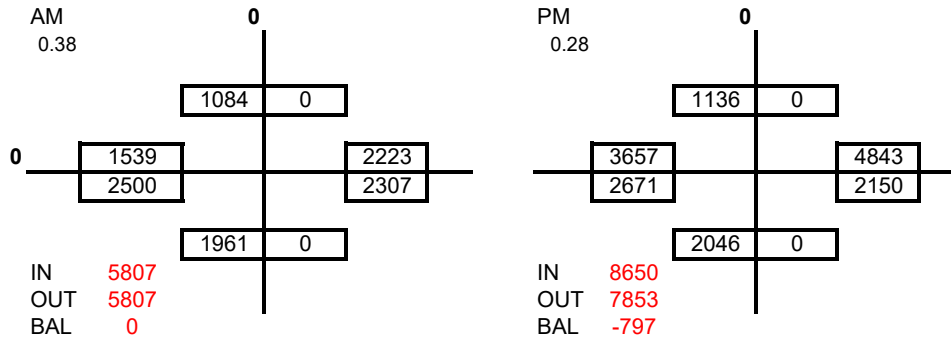


Project: Gateway Downtown
Condition: Build-out
Intersection Number: 5
North/South Street SB I-215 Ramps
East/West Street 5th Street

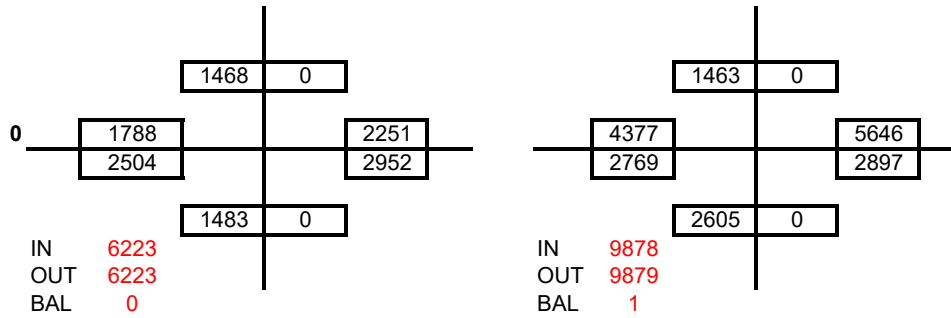
Model Base Year 2012
Model Build-out Year 2040
Total Difference 28
Existing Year Counts 2020
Difference Ex to B-O 20
Percent 0.71
Study Year Forecast 2040 Build-out
Difference Ex to Forecast 20

Date: 04/21/20

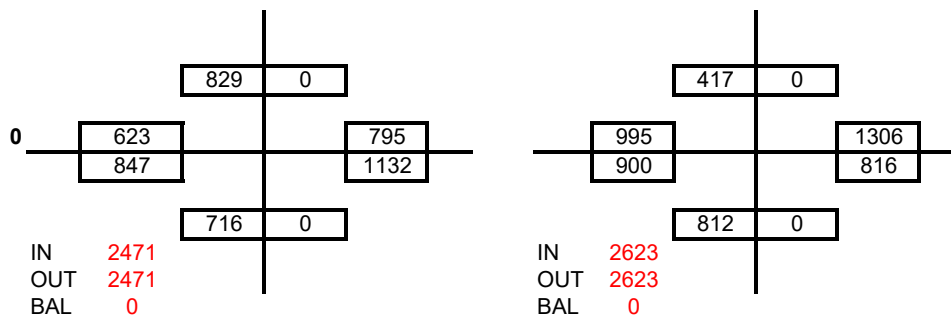
Model Base Year: 2012



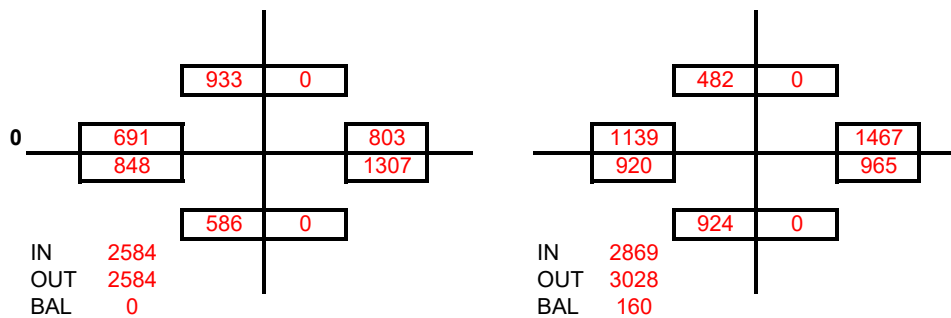
Model Build-out Year: 2040 Build-out



Existing Year Counts 2020



Study Year Forecast 2040 Build-out

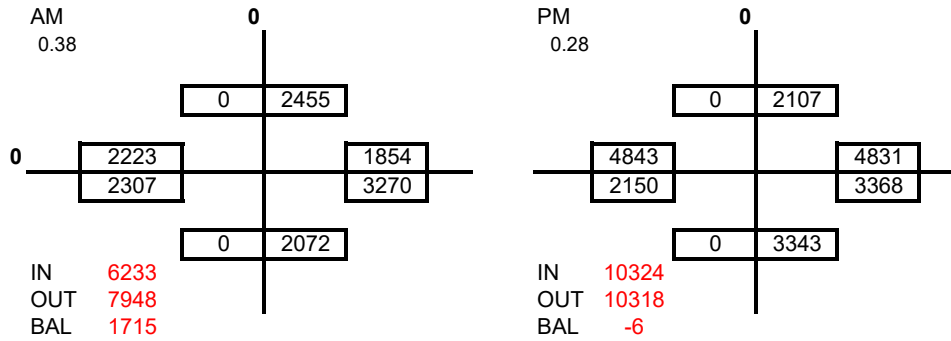


Project: Gateway Downtown
Condition: Build-out
Intersection Number: 6
North/South Street: NB I-215 Ramps
East/West Street: 5th Street

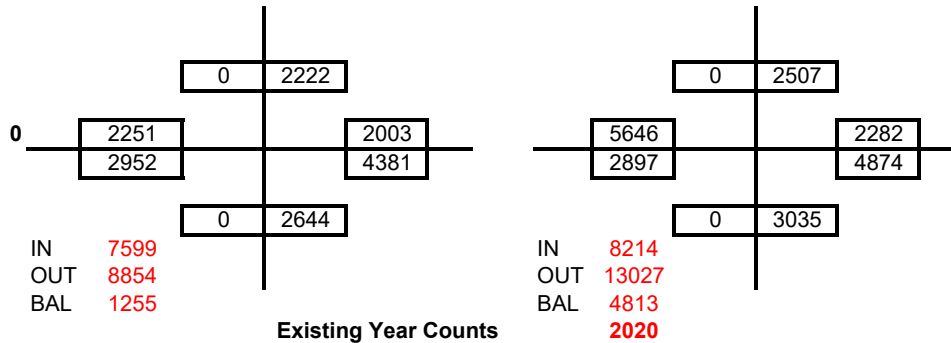
Model Base Year: 2012
Model Build-out Year: 2040
Total Difference: 28
Existing Year Counts: 2020
Difference Ex to B-O Percent: 0.71
Study Year Forecast: 2040 Build-out
Difference Ex to Forecast: 20

Date: 04/21/20

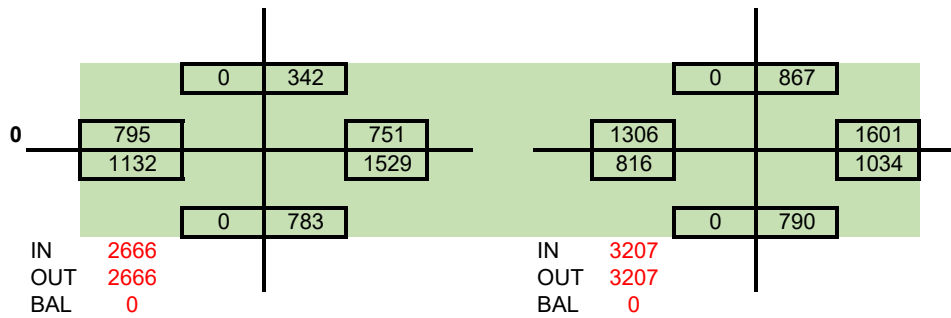
Model Base Year: 2012



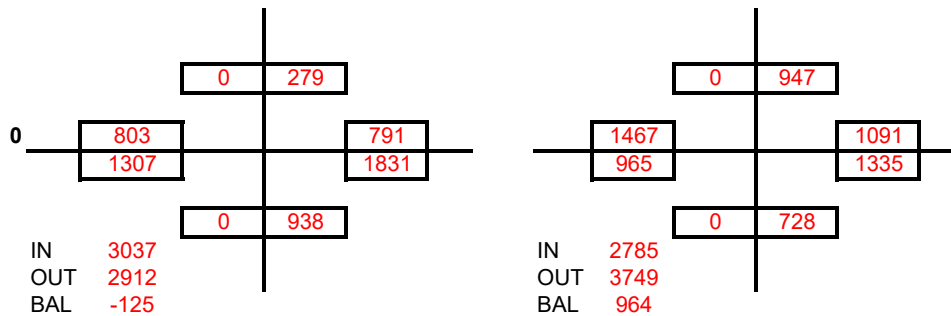
Model Build-out Year: 2040 Build-out



Existing Year Counts 2020



Study Year Forecast 2040 Build-out

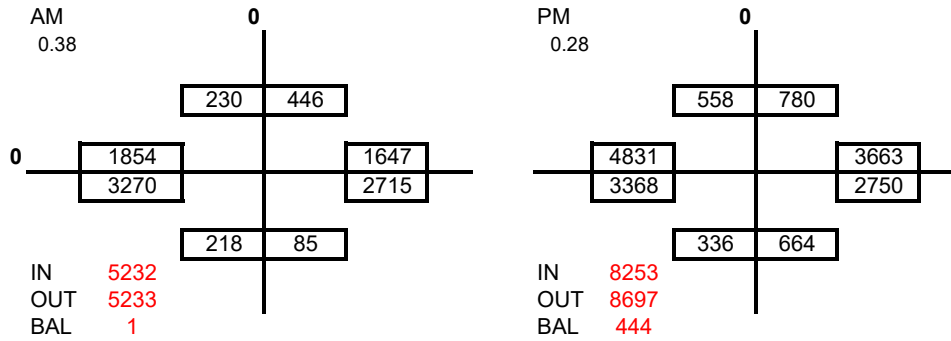


Project: Gateway Downtown
Condition: Build-out
Intersection Number: 7
North/South Street H Street
East/West Street 5th Street

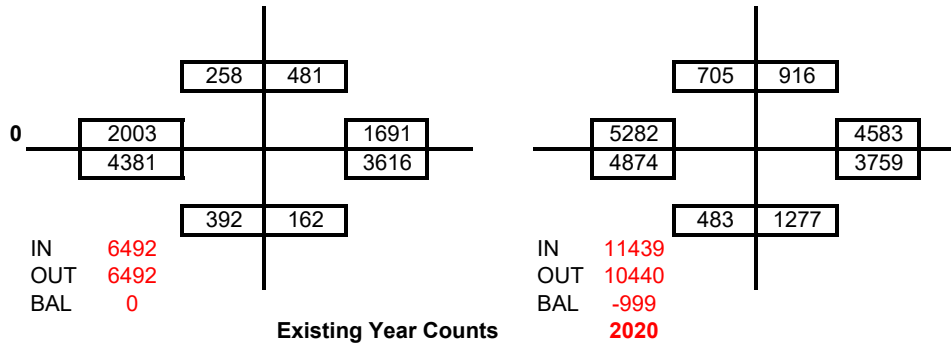
Model Base Year 2012
Model Build-out Year 2040
Total Difference 28
Existing Year Counts 2020
Difference Ex to B-O 20
Percent 0.71
Study Year Forecast 2040 Build-out
Difference Ex to Forecast 20

Date: 04/21/20

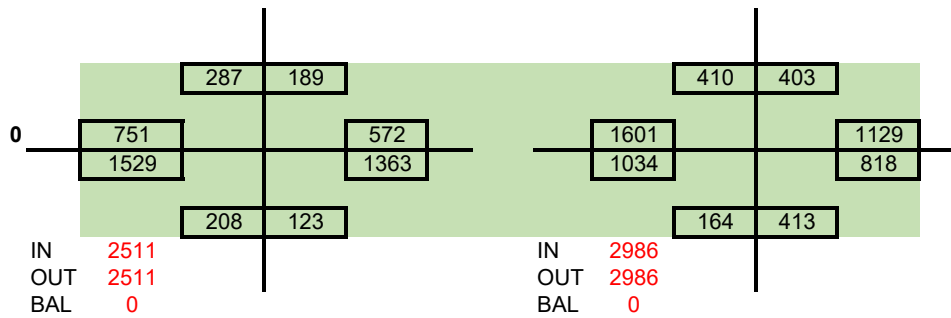
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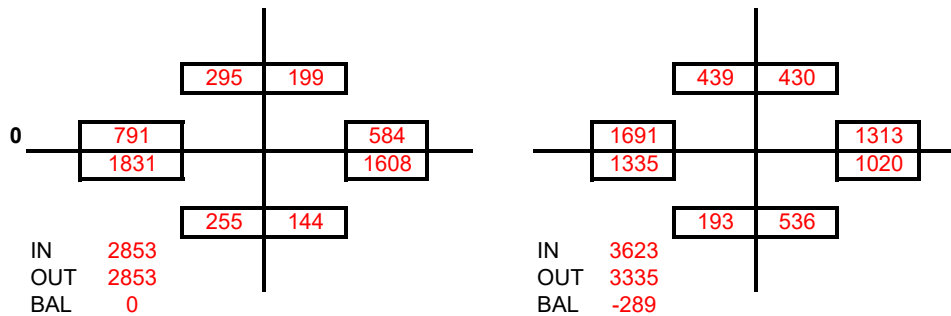
Model Build-out Year: 2040 Build-out



Existing Year Counts 2020



Study Year Forecast 2040 Build-out

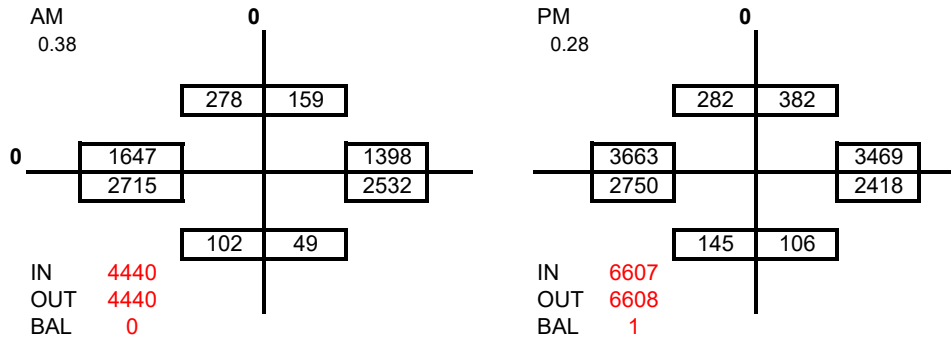


Project: Gateway Downtown
Condition: Build-out
Intersection Number: 8
North/South Street G Street
East/West Street 5th Street

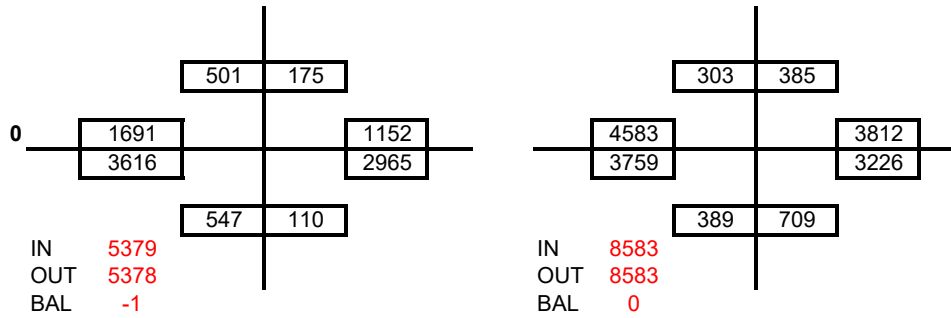
Model Base Year 2012
Model Build-out Year 2040
Total Difference 28
Existing Year Counts 2020
Difference Ex to B-O 20
Percent 0.71
Study Year Forecast 2040 Build-out
Difference Ex to Forecast 20

Date: 04/21/20

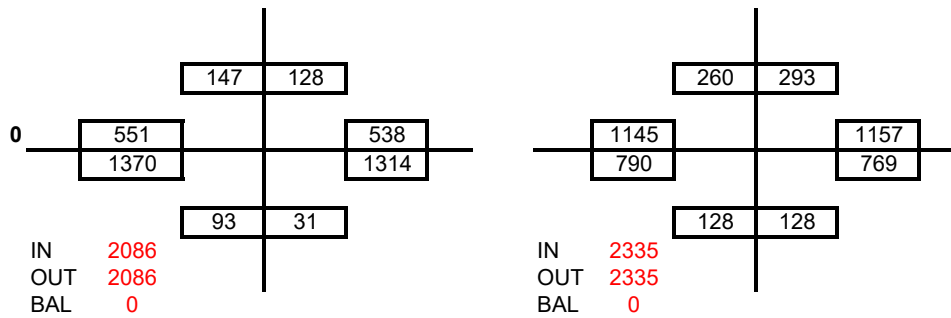
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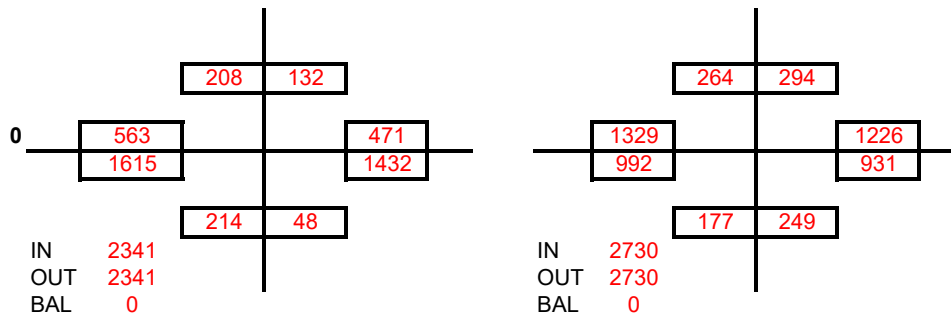
Model Build-out Year: 2040 Build-out



Existing Year Counts 2020



Study Year Forecast 2040 Build-out

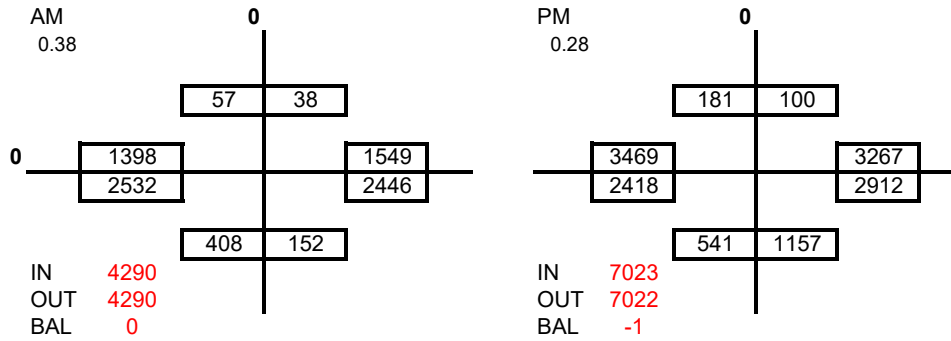


Project: Gateway Downtown
Condition: Build-out
Intersection Number: 9
North/South Street: F Street
East/West Street: 5th Street

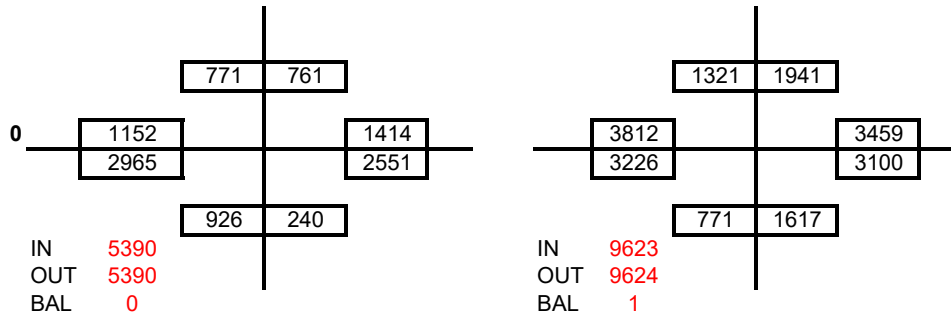
Model Base Year: 2012
Model Build-out Year: 2040
Total Difference: 28
Existing Year Counts: 2020
Difference Ex to B-O: 20
Percent: 0.71
Study Year Forecast: 2040 Build-out
Difference Ex to Forecast: 20

Date: 04/21/20

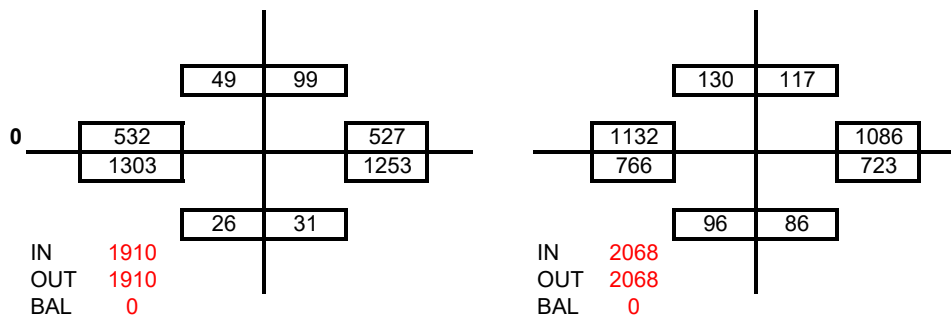
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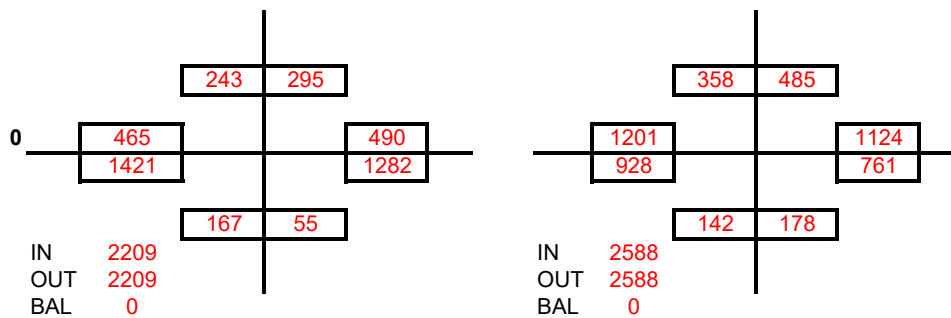
Model Build-out Year: 2040 Build-out



Existing Year Counts 2020



Study Year Forecast 2040 Build-out

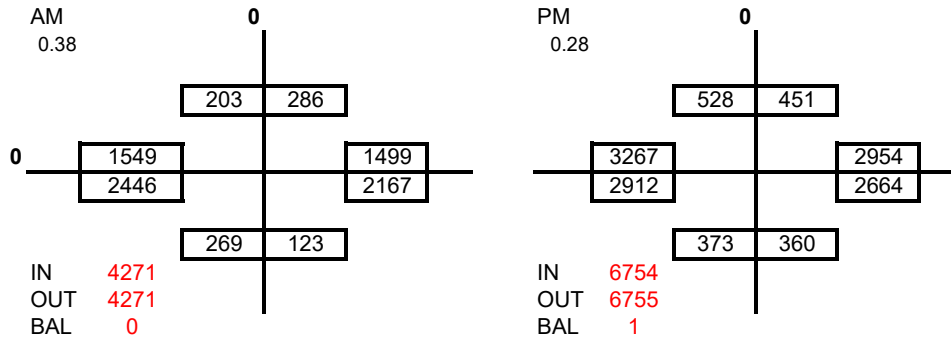


Project: Gateway Downtown
Condition: Build-out
Intersection Number: 10
North/South Street E Street
East/West Street 5th Street

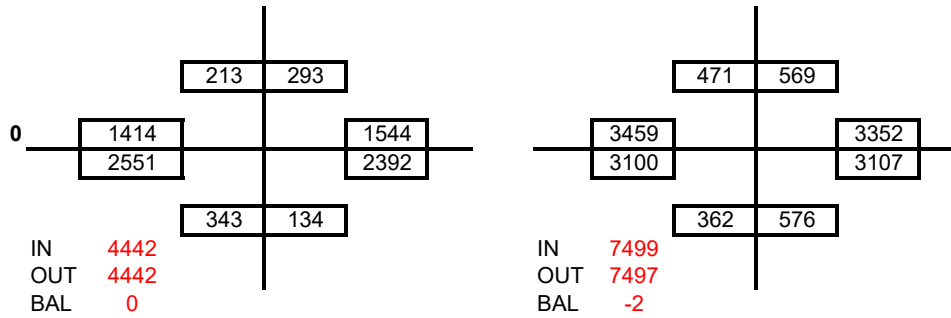
Model Base Year 2012
Model Build-out Year 2040
Total Difference 28
Existing Year Counts 2020
Difference Ex to B-O 20
Percent 0.71
Study Year Forecast 2040 Build-out
Difference Ex to Forecast 20

Date: 04/21/20

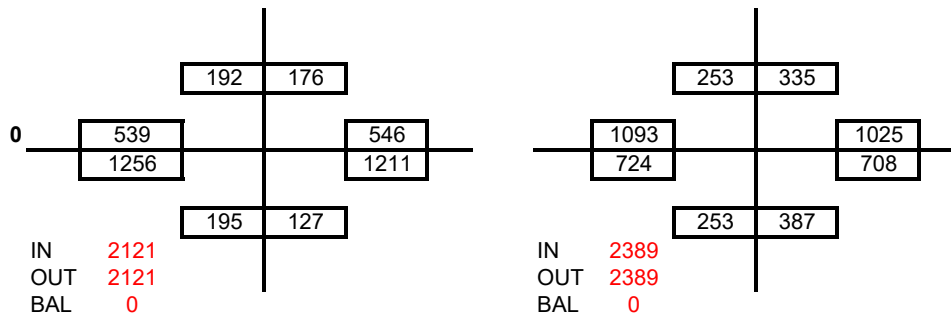
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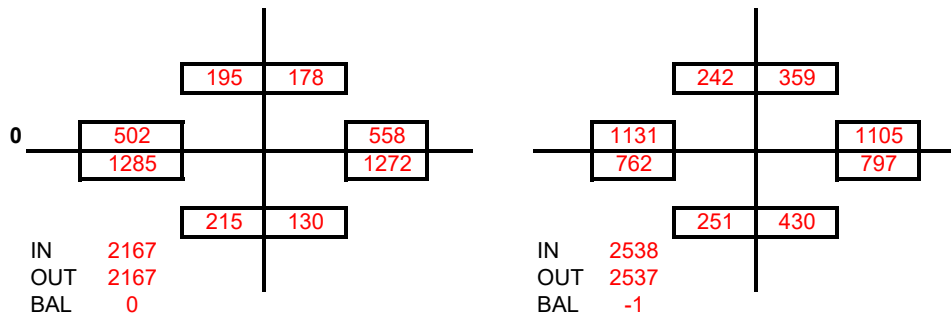
Model Build-out Year: 2040 Build-out



Existing Year Counts 2020



Study Year Forecast 2040 Build-out

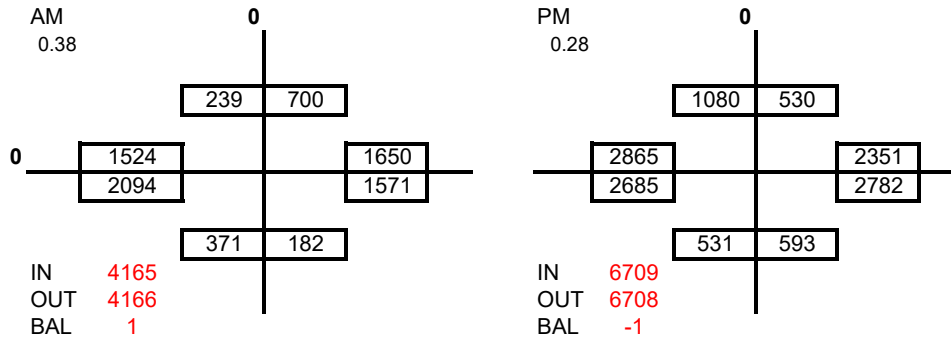


Project: Gateway Downtown
Condition: Build-out
Intersection Number: 11
North/South Street: D Street
East/West Street: 5th Street

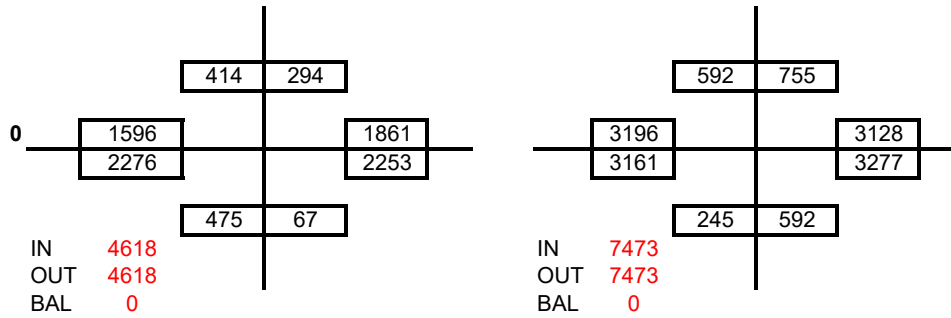
Model Base Year: 2012
Model Build-out Year: 2040
Total Difference: 28
Existing Year Counts: 2020
Difference Ex to B-O: 20
Percent: 0.71
Study Year Forecast: 2040 Build-out
Difference Ex to Forecast: 20

Date: 04/15/20

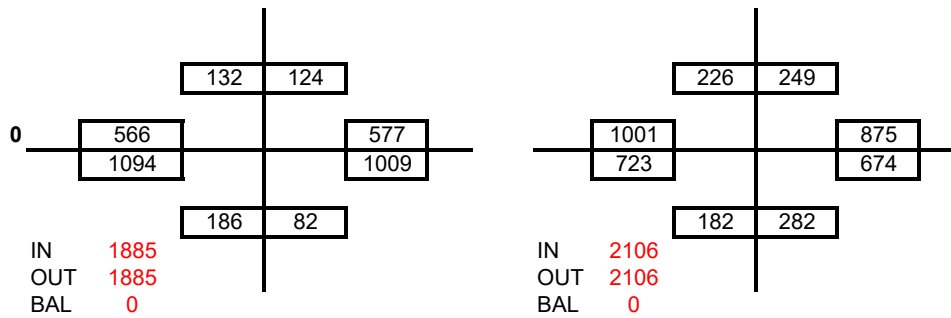
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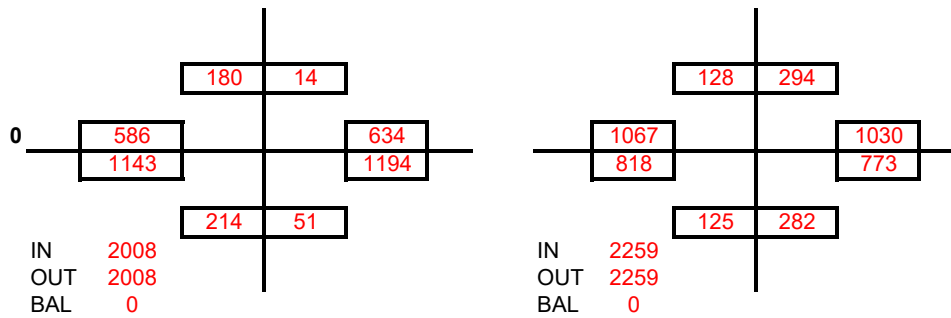
Model Build-out Year: 2040 Build-out



Existing Year Counts 2020



Study Year Forecast 2040 Build-out

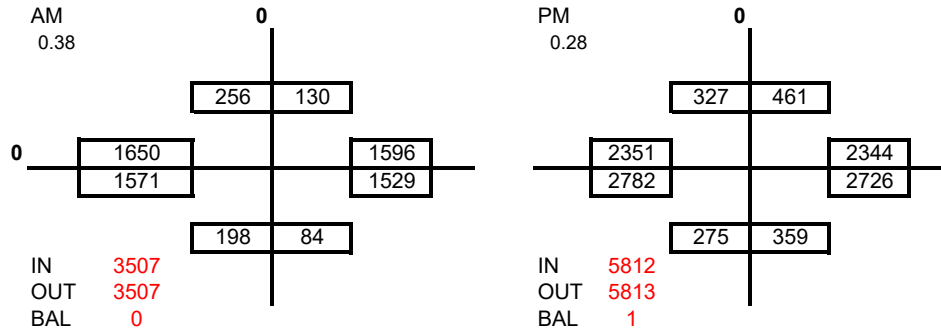


Project: Gateway Downtown
Condition: Build-out
Intersection Number: 12
North/South Street Arrowhead Avenue
East/West Street 5th Street

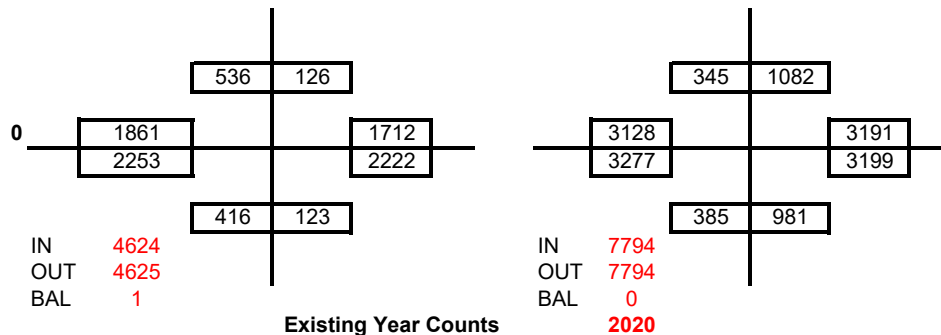
Model Base Year 2012
Model Build-out Year 2040
Total Difference 28
Existing Year Counts 2020
Difference Ex to B-O 20
Percent 0.71
Study Year Forecast 2040 Build-out
Difference Ex to Forecast 20

Date: 04/15/20

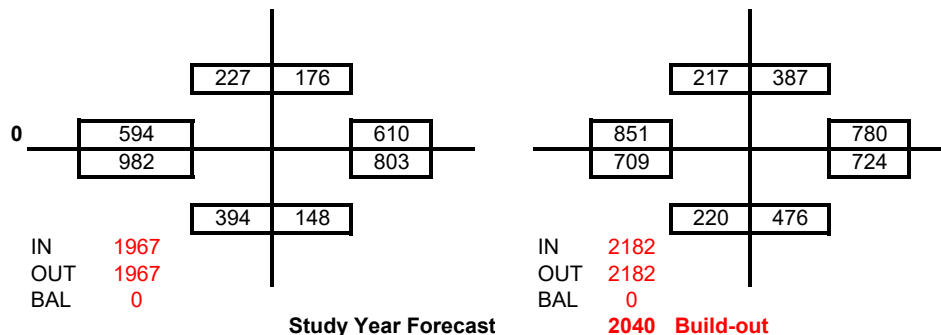
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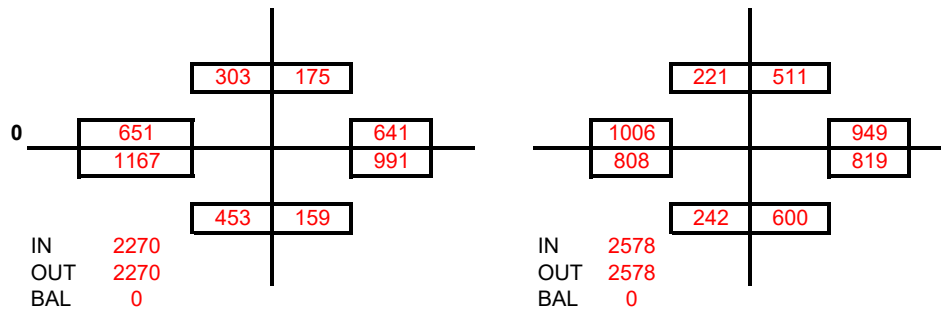
Model Build-out Year: 2040 Build-out



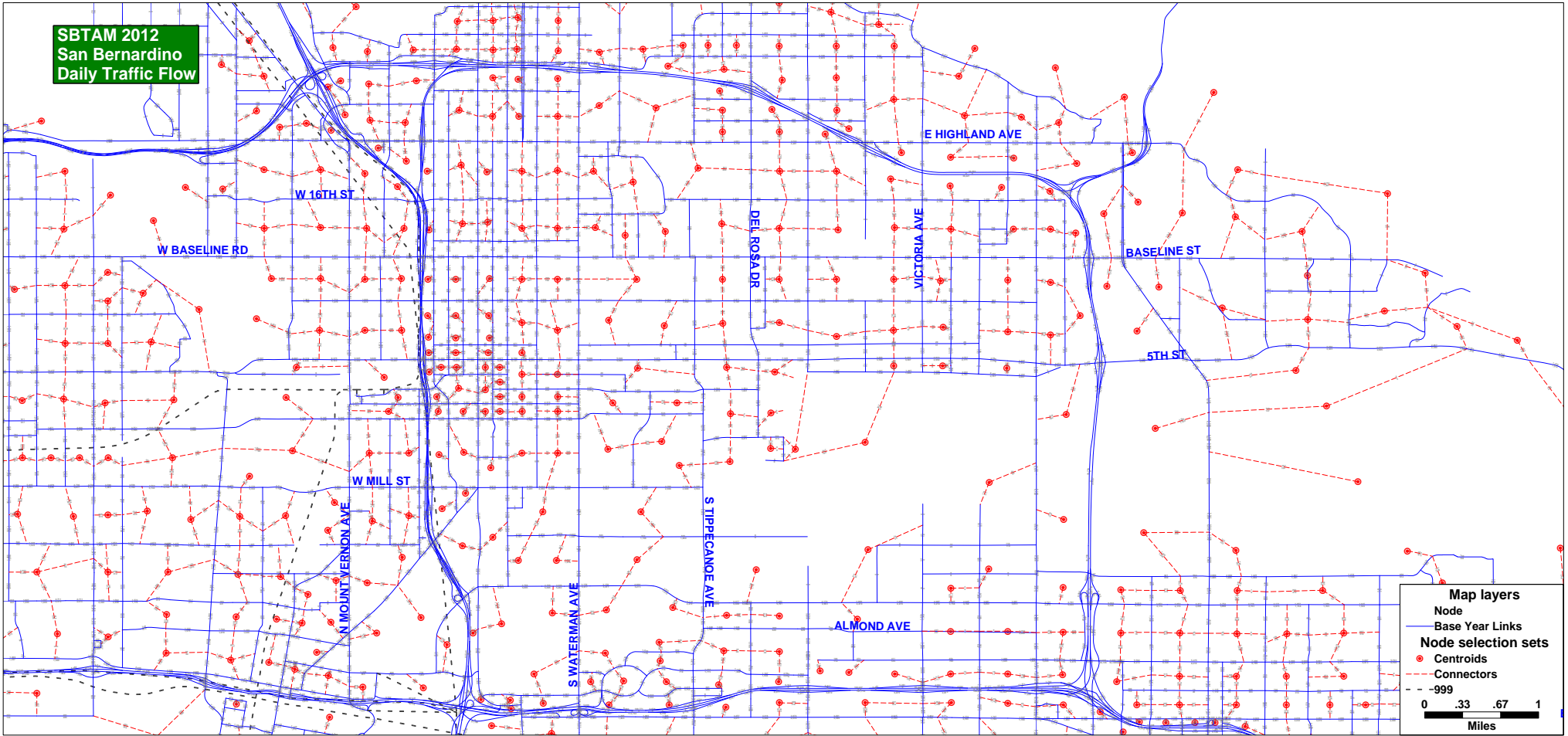
Existing Year Counts 2020



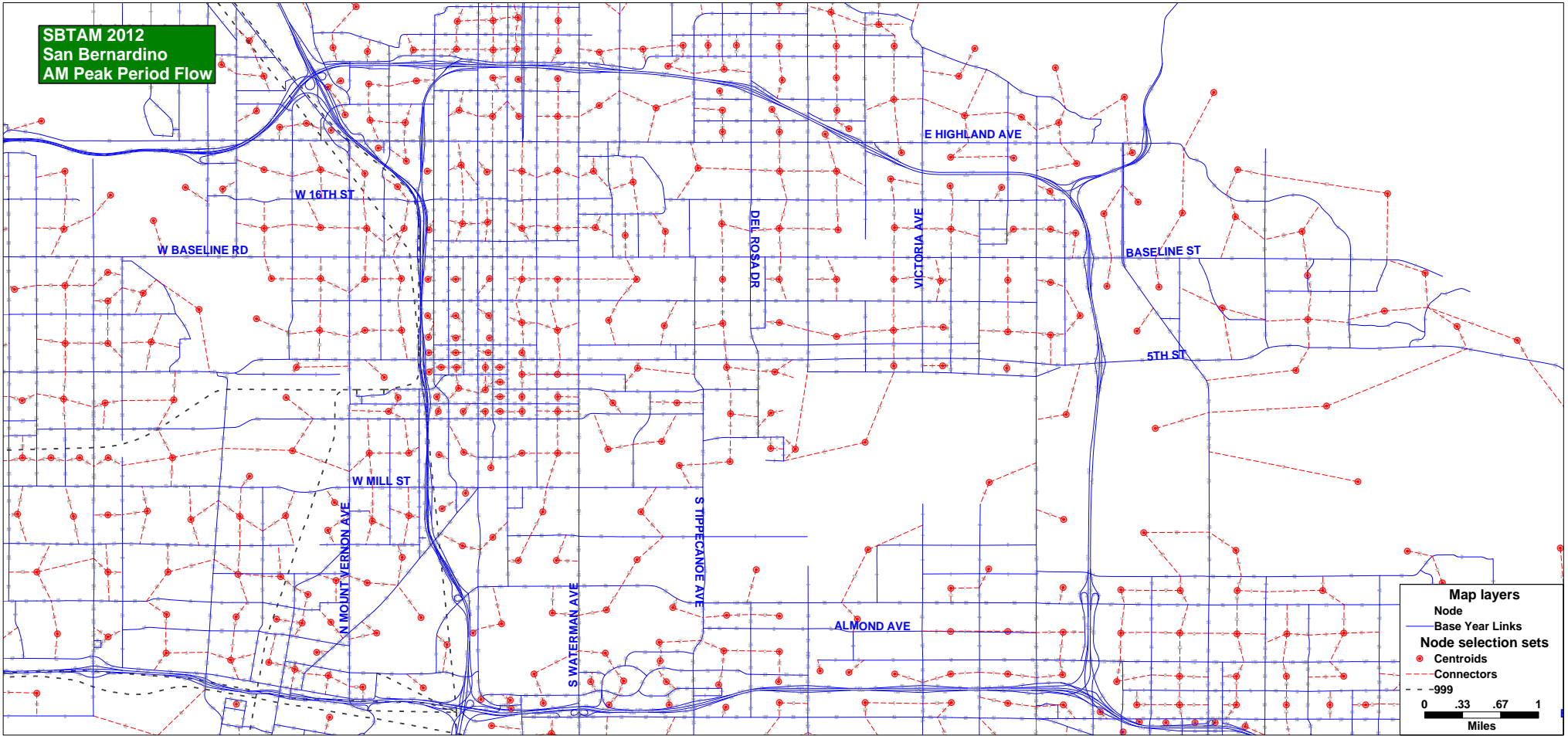
Study Year Forecast 2040 Build-out



SBTAM 2012
San Bernardino
Daily Traffic Flow



SBTAM 2012
San Bernardino
AM Peak Period Flow



Map layers

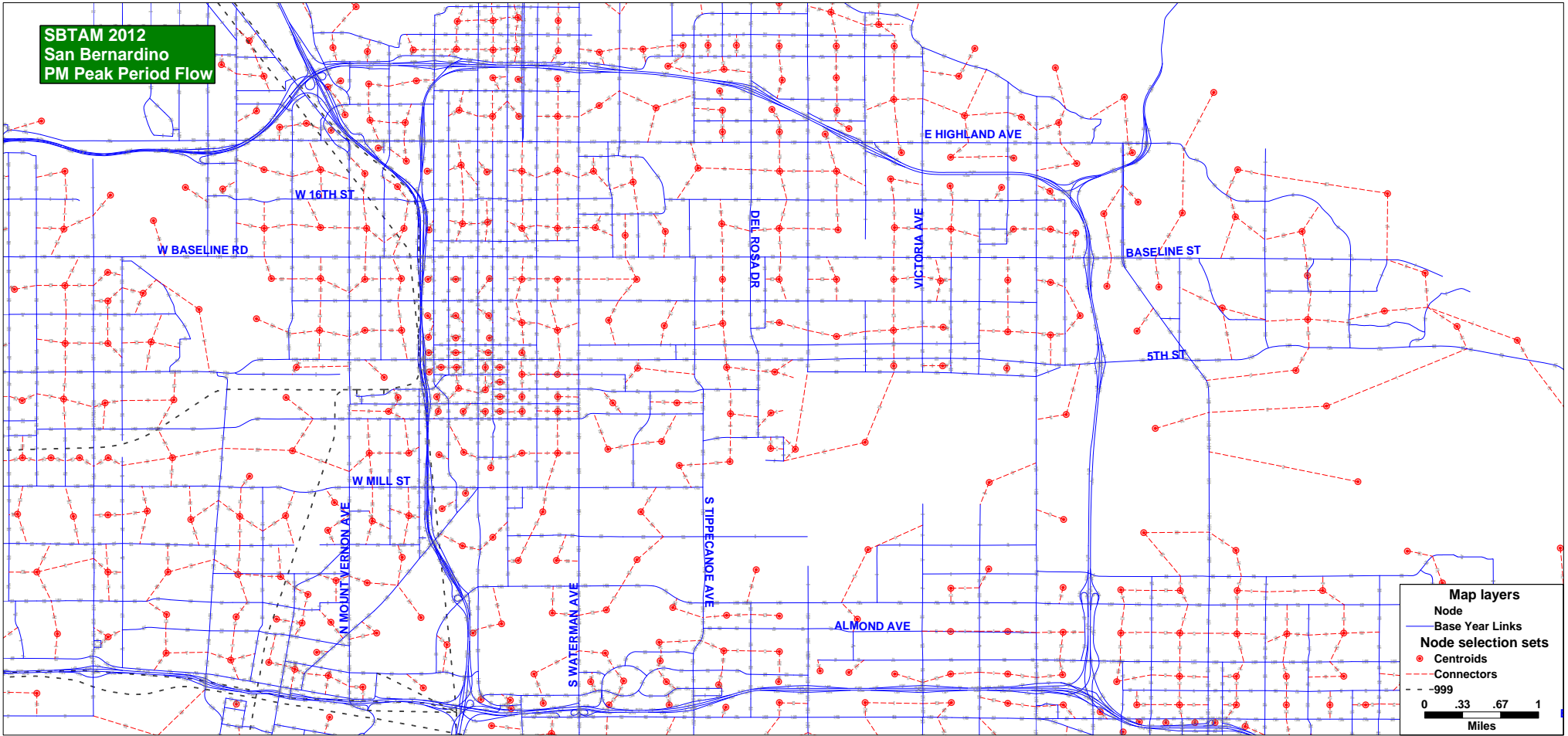
- Node
- Base Year Links

Node selection sets

- Centroids
- Connectors
- - -999

0 .33 .67 1
Miles

SBTAM 2012
San Bernardino
PM Peak Period Flow



Map layers

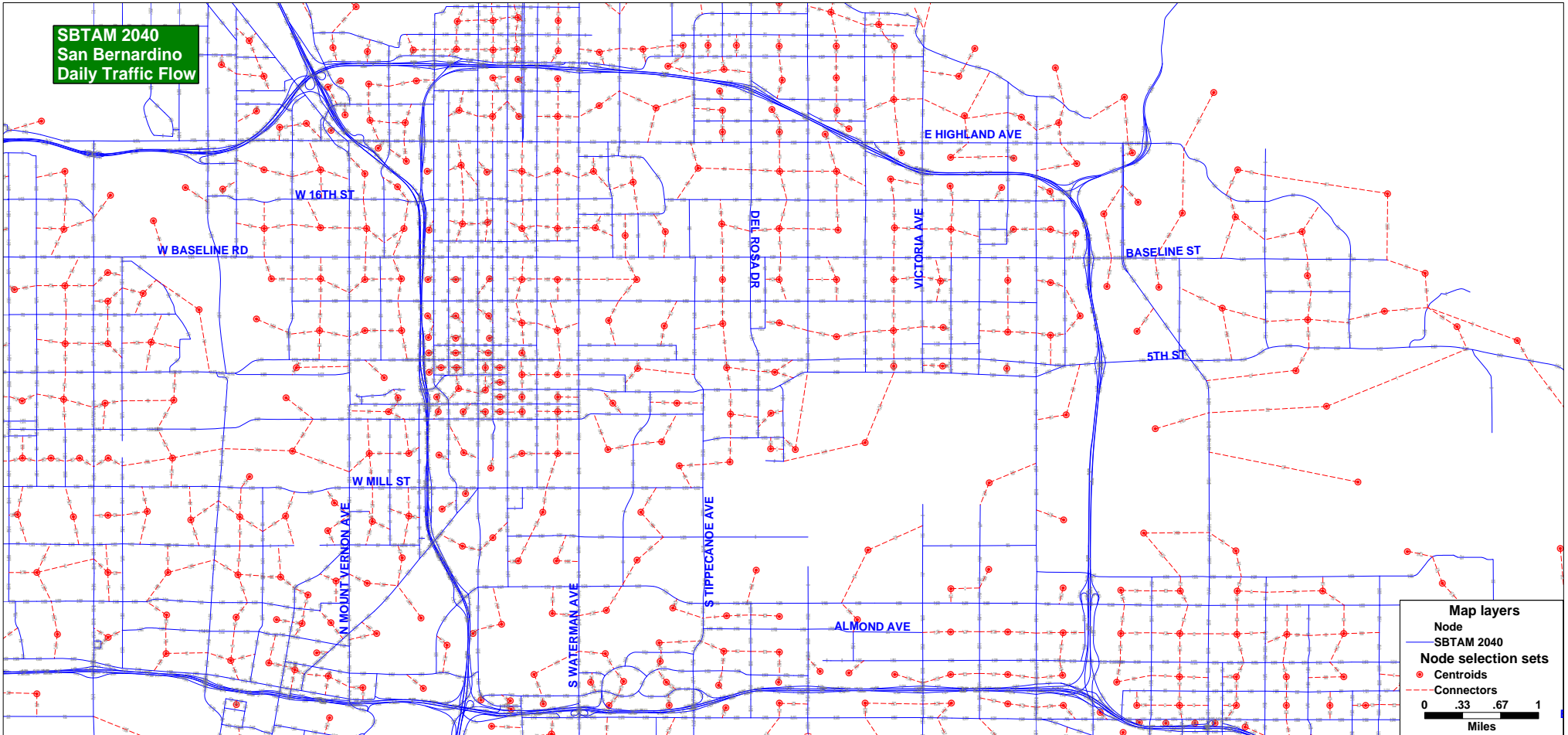
- Node
- Base Year Links

Node selection sets

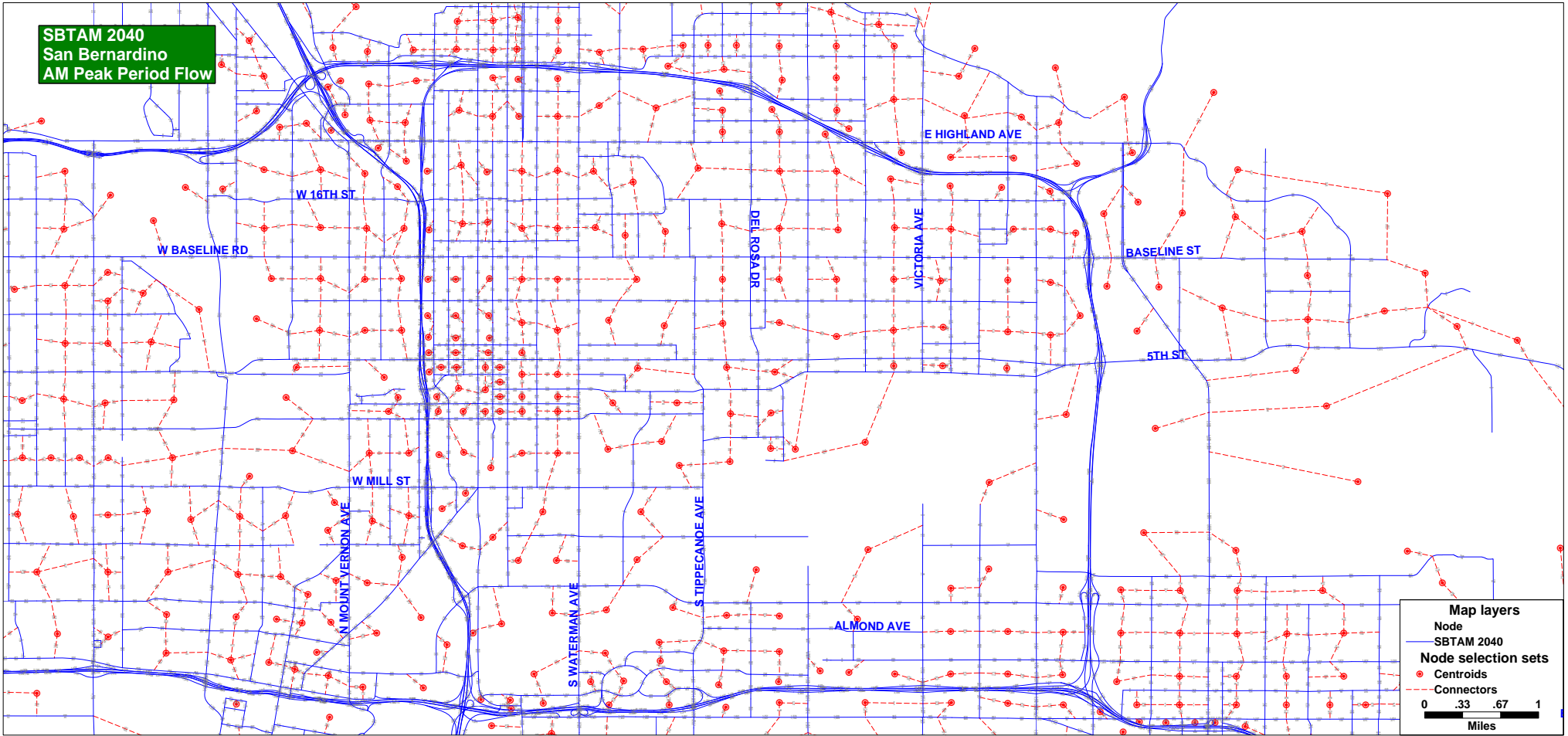
- Centroids
- Connectors
- - -999

0 .33 .67 1
Miles

SBTAM 2040
San Bernardino
Daily Traffic Flow



SBTAM 2040
San Bernardino
AM Peak Period Flow



Map layers

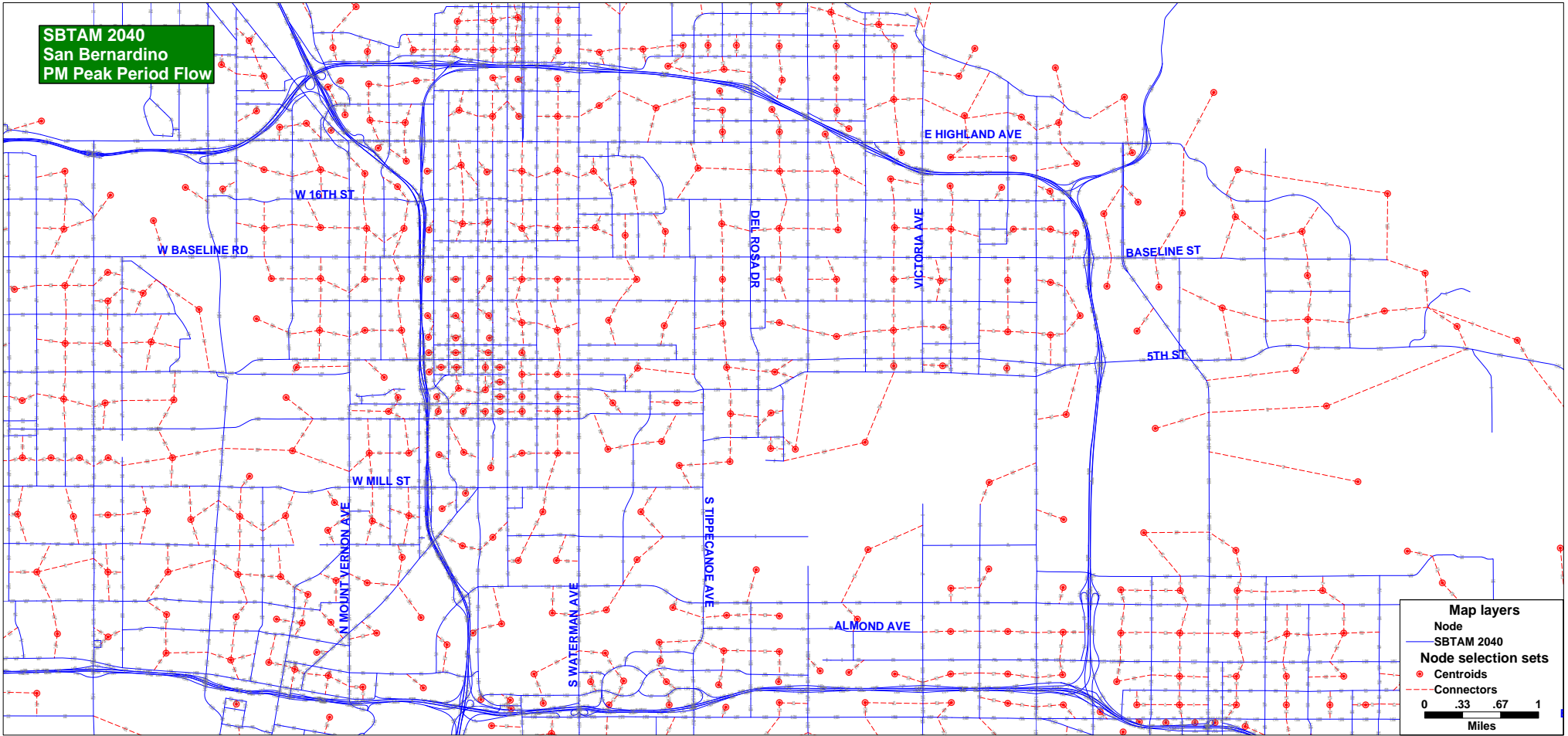
- Node
- SBTAM 2040

Node selection sets

- Centroids
- Connectors

0 .33 .67 1
Miles

**SBTAM 2040
San Bernardino
PM Peak Period Flow**



Map layers

- Node
- SBTAM 2040
- Node selection sets**
- Centroids
- Connectors

0 .33 .67 1
Miles

Appendix F: Queuing Analysis - Worksheet

**APPENDIX F
DRIVE-THROUGH QUEUING ANALYSIS**

Project: Gateway Downtown Parcel B, C and D - Parcel B
Location: City of San Bernardino

INPUT VALUES

Variable	Description	Value
A =	average number of vehicle arrivals per hour ¹	49
S =	service rate, number of vehicles per hour	82
I =	traffic intensity, utilization factor = A/S	0.60
Q =	queue capacity (vehicles)	8

FORMULAS

Average Length of Queue	$\text{Avg } Q = A^2 / S(S-A) = I^2 / 1-I$	0.90
Probability of Q Number of Vehicles in Queue	$P(Q) = (I)^Q (1-I)$	0.67%
Probability of Queue Exceeding Q Vehicles	$\sum_{Q=0}^{Q=a} P(Q) \geq 0.95$	1.00%

¹ For a worst-case analysis, peak incoming trips from 11th Editions, ITE Trip Generation Estimates is used here.

Source: Institute of Transportation Engineers (ITE)
Transportation Planning Handbook, 3rd Edition

Appendix F

Queuing Analysis - Entry Gate

Project: Gateway Downtown Parcel B, C and D - Parcel C

Assumptions - All Non-Members Using the Car Wash

Time period	60	min
Arrival Rate	55	veh/hr
Service Time	60	sec/veh

λ	mean arrival rate	55.0	veh/per Time period
μ	mean service rate	60.0	veh/per Time period
N	# service channels	3	(toll booths, loading zone, etc.)
ρ	Utilization Factor	0.92	
ρ/N		0.31	
$1-(\rho/N)$		0.69	
P0	Probability no queue	0.40	
Pn>N	Probability of having to wait in a queue	0.05	
n	# cars in queue	3.00	
Pn	Probability of n cars in queue	0.05	

Q	Average queue length	0.03	veh
		0.81	feet
w	Average wait time	0.00	min
		0	sec
t	Average time spent in system	0.02	min
		1	sec

Formulas:

$$\rho = \frac{\lambda}{\mu}$$

$$P_n = \frac{\rho^n P_0}{n!} \text{ for } n \leq N$$

$$P_n = \frac{\rho^n P_0}{N^{n-N} N!} \text{ for } n \geq N$$

$$P_{n>N} = \frac{P_0 \rho^{N+1}}{N! N (1 - \frac{\rho}{N})}$$

$$Q = \frac{P_0 \rho^{N+1}}{N! N} \left[\frac{1}{(1 - \rho/N)^2} \right]$$

$$w = \frac{\rho + Q}{\lambda} - \frac{1}{\mu}$$

$$t = \frac{\rho + Q}{\lambda}$$

Appendix F

Queuing Analysis - Car Wash

Project: Gateway Downtown Parcel B, C and D - Parcel C

Assumptions - All Non-Members Using the Car Wash

Time period	60	min
Arrival Rate	55	veh/hr
Service Time	50	sec/veh

λ	mean arrival rate	55.0	veh/per Time period
μ	mean service rate	72.0	veh/per Time period
N	# service channels	1	(toll booths, loading zone, etc.)
ρ	Utilization Factor	0.76	
ρ/N		0.76	
$1-(\rho/N)$		0.24	
P_0	Probability no queue	0.24	
$P_{n>N}$	Probability of having to wait in a queue	0.18	
n	# cars in queue	10.00	
P_n	Probability of n cars in queue	0.02	

Q	Average queue length	2.47	veh
		61.79	feet
w	Average wait time	0.04	min
		3	sec
t	Average time spent in system	0.06	min
		4	sec

Formulas:

$$\rho = \frac{\lambda}{\mu}$$

$$P_n = \frac{\rho^n P_0}{n!} \text{ for } n \leq N$$

$$P_n = \frac{\rho^n P_0}{N^{n-N} N!} \text{ for } n \geq N$$

$$P_{n>N} = \frac{P_0 \rho^{N+1}}{N! N (1 - \frac{\rho}{N})}$$

$$Q = \frac{P_0 \rho^{N+1}}{N! N} \left[\frac{1}{(1 - \rho/N)^2} \right]$$

$$w = \frac{\rho + Q}{\lambda} - \frac{1}{\mu}$$

$$t = \frac{\rho + Q}{\lambda}$$

**APPENDIX F
DRIVE-THROUGH QUEUING ANALYSIS**

Project: Gateway Downtown Parcel B, C and D - Parcel D
Location: City of San Bernardino

INPUT VALUES

Variable	Description	Value
A =	average number of vehicle arrivals per hour ¹	49
S =	service rate, number of vehicles per hour	85
I =	traffic intensity, utilization factor = A/S	0.58
Q =	queue capacity (vehicles)	8

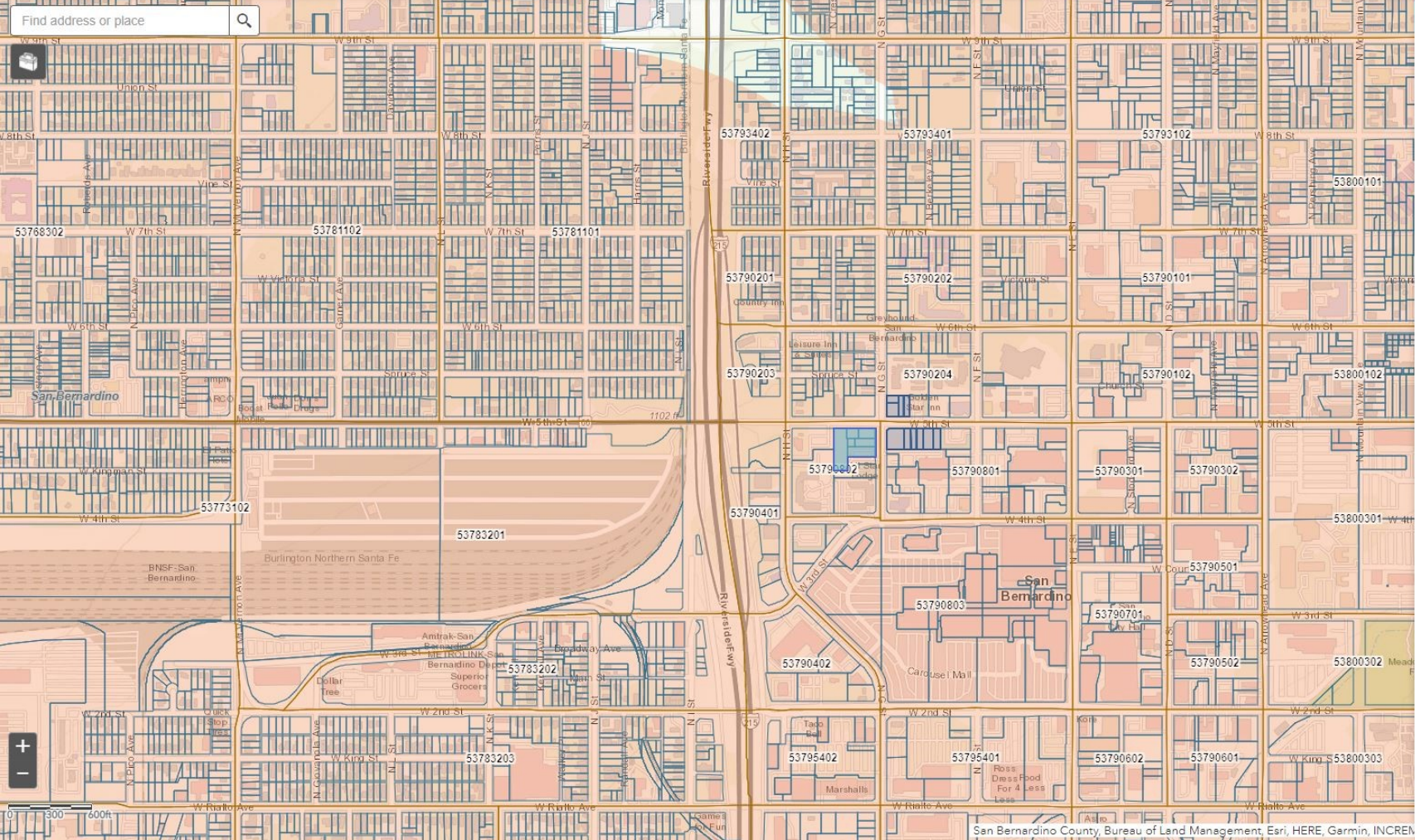
FORMULAS

Average Length of Queue	$\text{Avg } Q = A^2 / S(S-A) = I^2 / 1-I$	0.79
Probability of Q Number of Vehicles in Queue	$P(Q) = (I)^Q (1-I)$	0.52%
Probability of Queue Exceeding Q Vehicles	$\sum_{Q=0}^{Q=a} P(Q) \geq 0.95$	0.71%

¹ For a worst-case analysis, peak incoming trips from 11th Editions, ITE Trip Generation Estimates is used here.

Source: Institute of Transportation Engineers (ITE)
Transportation Planning Handbook, 3rd Edition

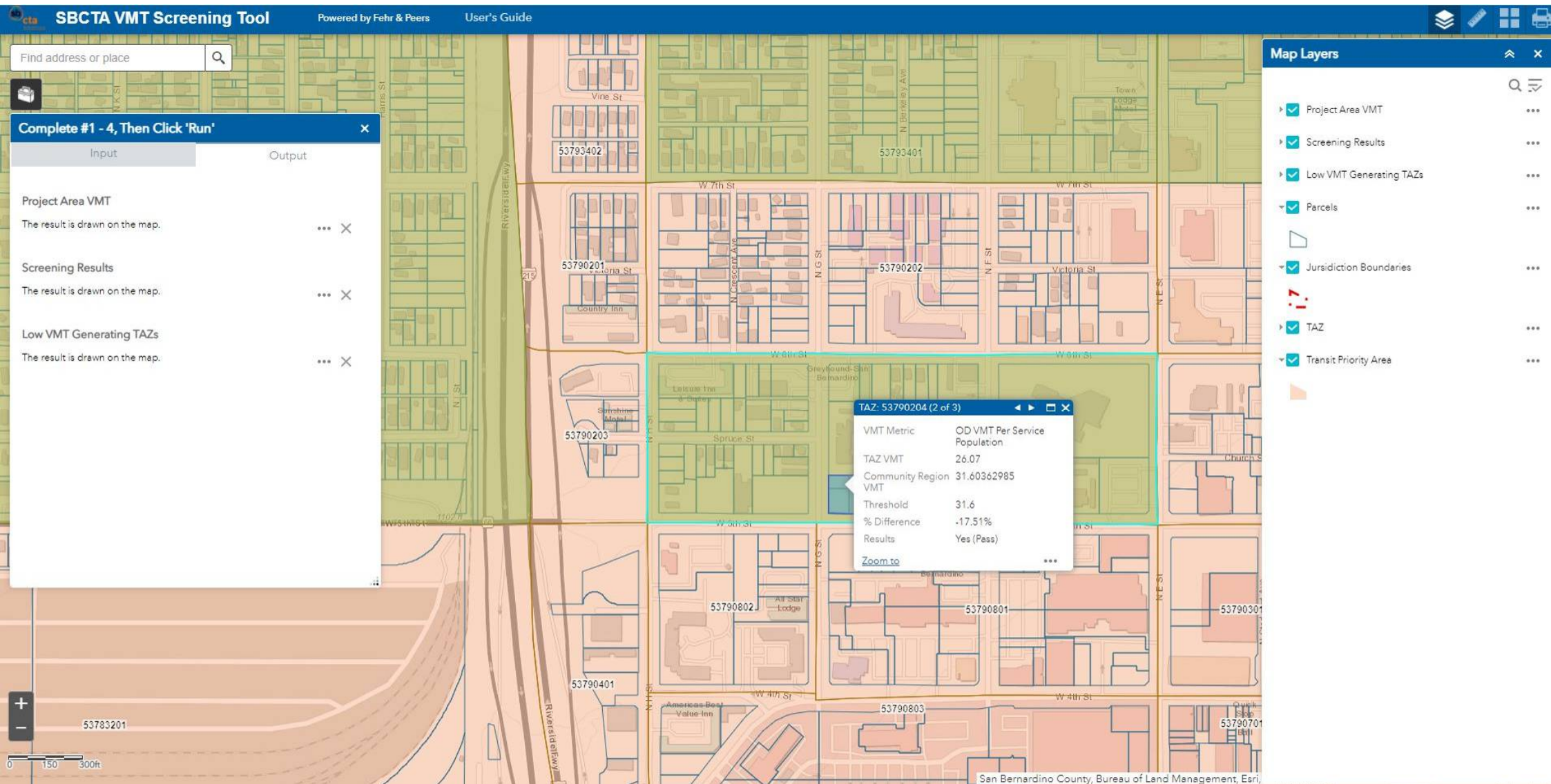
Appendix G: VMT – SBTAM Tool Results



Map Layers

- Project Area VMT
- Screening Results
- Low VMT Generating TAZs
- Parcels
- Jurisdiction Boundaries
- TAZ
- Transit Priority Area

San Bernardino County, Bureau of Land Management, Esri, HERE, Garmin, INCREMENTAL



cta SBCTA VMT Screening Tool Powered by Fehr & Peers User's Guide

Find address or place

Complete #1 - 4, Then Click 'Run'

Input Output

Project Area VMT
The result is drawn on the map. ... X

Screening Results
The result is drawn on the map. ... X

Low VMT Generating TAZs
The result is drawn on the map. ... X

Map Layers

- Project Area VMT
- Screening Results
- Low VMT Generating TAZs
- Parcels
- Jurisdiction Boundaries
- TAZ
- Transit Priority Area

Screening Results (3 of 3)

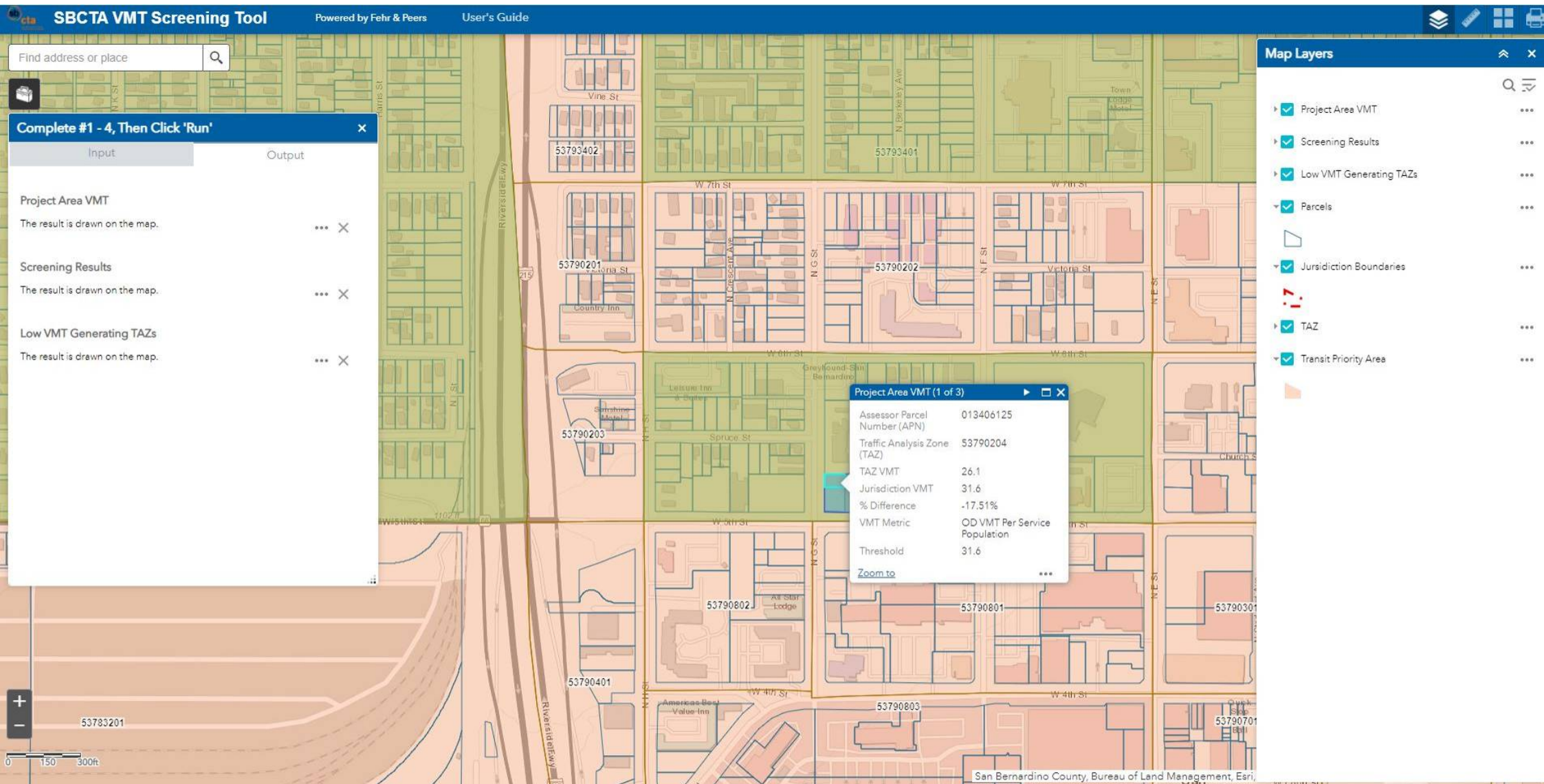
Completely within a TPA? Yes (Pass)

Within a low VMT generating TAZ? Yes (Pass)

Note: Screening results are based on location of parcel centroids. If results are desired considering the full parcel, please refer to the associated map layers to visually review parcel and TAZ boundary relationship.

Zoom to ...

San Bernardino County, Bureau of Land Management, Eri...



SBCTA VMT Screening Tool Powered by Fehr & Peers User's Guide

Find address or place

Complete #1 - 4, Then Click 'Run'

Input Output

Project Area VMT
The result is drawn on the map. ... X

Screening Results
The result is drawn on the map. ... X

Low VMT Generating TAZs
The result is drawn on the map. ... X

Map Layers

- Project Area VMT
- Screening Results
- Low VMT Generating TAZs
- Parcels
- Jurisdiction Boundaries
- TAZ
- Transit Priority Area

Screening Results (2 of 2)

Completely within a TPA?	Yes (Pass)
Within a low VMT generating TAZ?	Yes (Pass)
Note	Screening results are based on location of parcel centroids. If results are desired considering the full parcel, please refer to the associated map layers to visually review parcel and TAZ boundary relationship.

Zoom to ...

San Bernardino County, Bureau of Land Management, Esri

cta SBCTA VMT Screening Tool Powered by Fehr & Peers User's Guide

Find address or place

Complete #1 - 4, Then Click 'Run'

Input Output

Project Area VMT
The result is drawn on the map. ... X

Screening Results
The result is drawn on the map. ... X

Low VMT Generating TAZs
The result is drawn on the map. ... X

Map Layers

- Project Area VMT
- Screening Results
- Low VMT Generating TAZs
- Parcels
- Jurisdiction Boundaries
- TAZ
- Transit Priority Area

W 5TH ST 680 W 5TH ST 632

Screening Results

Completely within a TPA? Yes (Pass)

Within a low VMT generating TAZ? Yes (Pass)

Note: Screening results are based on location of parcel centroids. If results are desired considering the full parcel, please refer to the associated map layers to visually review parcel and TAZ boundary relationship.

Zoom to ...

0 20 40ft

San Bernardino County, Bureau of Land Management, Esri

cta SBCTA VMT Screening Tool Powered by Fehr & Peers User's Guide

Find address or place

Complete #1 - 4, Then Click 'Run'

Input Output

Project Area VMT
The result is drawn on the map.

Screening Results
The result is drawn on the map.

Low VMT Generating TAZs
The result is drawn on the map.

Map Layers

- Project Area VMT
- Screening Results
- Low VMT Generating TAZs
- Parcels
- Jurisdiction Boundaries
- TAZ
- Transit Priority Area

Project Area VMT (1 of 2)

Assessor Parcel Number (APN)	013410128
Traffic Analysis Zone (TAZ)	53790801
TAZ VMT	58.5
Jurisdiction VMT	31.6
% Difference	85.15%
VMT Metric	OD VMT Per Service Population
Threshold	31.6

Zoom to

San Bernardino County, Bureau of Land Management, Esri

0 20 40ft
https://www.gosbcta.com

cta SBCTA VMT Screening Tool Powered by Fehr & Peers User's Guide

Find address or place

Complete #1 - 4, Then Click 'Run'

Input	Output
Project Area VMT	The result is drawn on the map. ... X
Screening Results	The result is drawn on the map. ... X
Low VMT Generating TAZs	The result is drawn on the map. ... X

Screening Results (2 of 2)

Completely within a TPA? Yes (Pass)

Within a low VMT generating TAZ? Yes (Pass)

Note: Screening results are based on location of parcel centroids. If results are desired considering the full parcel, please refer to the associated map layers to visually review parcel and TAZ boundary relationship.

[Zoom to](#) ...

Map Layers

- Project Area VMT
- Screening Results
- Low VMT Generating TAZs
- Parcels
- Jurisdiction Boundaries
- TAZ
- Transit Priority Area

498 NG ST 450

All Star Lodge

53790802

San Bernardino County, Bureau of Land Management, Esri

0 20 40ft

cta SBCTA VMT Screening Tool Powered by Fehr & Peers User's Guide

Find address or place

Complete #1 - 4, Then Click 'Run'

Input Output

Project Area VMT
The result is drawn on the map. ... X

Screening Results
The result is drawn on the map. ... X

Low VMT Generating TAZs
The result is drawn on the map. ... X

Screening Results

Completely within a TPA?	Yes (Pass)
Within a low VMT generating TAZ?	Yes (Pass)
Note	Screening results are based on location of parcel centroids. If results are desired considering the full parcel, please refer to the associated map layers to visually review parcel and TAZ boundary relationship.

Zoom to ...

Map Layers

- Project Area VMT
- Screening Results
- Low VMT Generating TAZs
- Parcels
- Jurisdiction Boundaries
- TAZ
- Transit Priority Area

498 NG ST 450

53790802

All Star Lodge

San Bernardino County, Bureau of Land Management, Esri

0 20 40ft

cta SBCTA VMT Screening Tool Powered by Fehr & Peers User's Guide

Find address or place

Complete #1 - 4, Then Click 'Run'

Input	Output
Project Area VMT	The result is drawn on the map. ... X
Screening Results	The result is drawn on the map. ... X
Low VMT Generating TAZs	The result is drawn on the map. ... X

Project Area VMT (1 of 2)

Assessor Parcel Number (APN)	013409305
Traffic Analysis Zone (TAZ)	53790802
TAZ VMT	58.7
Jurisdiction VMT	31.6
% Difference	85.88%
VMT Metric	OD VMT Per Service Population
Threshold	31.6
Zoom to	...

Map Layers

- Project Area VMT
- Screening Results
- Low VMT Generating TAZs
- Parcels
- Jurisdiction Boundaries
- TAZ
- Transit Priority Area

498 NG ST 450

All Star Lodge

53790802

San Bernardino County, Bureau of Land Management, Esri

0 20 40ft

Appendix H: QUICK QUACK – Queuing Surveys (Existing Sites)

MAX QUEUE

Location: Quick Quack Car Wash, 850 N Main St

City: Corona, CA

Day: Tuesday

Date: 8/30/2022

Time	MAX Queue Length (Number of Vehicles)			Notes
	Queue Length			
	Lane 1	Lane 2	CAR WASH to PAY AREA	
7:00 AM	0	0	0	
7:15 AM	1	0	1	
7:30 AM	1	0	1	
7:45 AM	2	1	1	
8:00 AM	1	1	1	
8:15 AM	2	1	1	
8:30 AM	2	1	2	
8:45 AM	2	1	2	
9:00 AM	4	3	4	
9:15 AM	3	3	3	
9:30 AM	2	1	3	
9:45 AM	1	1	1	
4:00 PM	1	1	1	
4:15 PM	2	1	2	
4:30 PM	2	1	1	
4:45 PM	2	1	1	
5:00 PM	3	0	3	
5:15 PM	1	1	1	
5:30 PM	3	1	2	
5:45 PM	3	2	2	
6:00 PM	2	1	3	
6:15 PM	2	1	2	
6:30 PM	4	1	3	
6:45 PM	2	1	1	
Totals	48	25	42	



MAX QUEUE

Location: Quick Quack Car Wash, 850 N Main St

City: Corona, CA

Day: Saturday

Date: 9/10/2022

Time	MAX Queue Length (Number of Vehicles)			Notes
	Queue Length			
	Lane 1	Lane 2	CAR WASH to PAY AREA	
11:00 AM	2	1	2	
11:15 AM	1	1	2	
11:30 AM	2	1	3	
11:45 AM	3	1	2	
12:00 PM	2	1	3	
12:15 PM	2	2	4	
12:30 PM	2	2	2	
12:45 PM	2	1	2	
1:00 PM	2	1	4	
1:15 PM	3	2	3	
1:30 PM	3	3	2	
1:45 PM	3	2	5	
Totals	27	18	34	



MAX QUEUE

Location: Quick Quack Car Wash, 31615 Yucaipa Blvd

City: Yucaipa, CA

Day: Tuesday

Date: 8/30/2022

Time	MAX Queue Length (Number of Vehicles)				Notes
	Queue Length			WASH ZONE to PAY AREA	
	Lane 1	Lane 2	Lane 3		
7:00 AM	1	0	0	0	
7:15 AM	2	1	0	0	
7:30 AM	1	0	0	0	
7:45 AM	2	0	0	0	
8:00 AM	2	1	0	0	
8:15 AM	2	1	0	0	
8:30 AM	2	1	0	0	
8:45 AM	3	1	0	1	
9:00 AM	1	1	0	0	
9:15 AM	2	0	0	0	
9:30 AM	1	1	0	0	
9:45 AM	2	0	0	0	
4:00 PM	2	1	0	0	
4:15 PM	2	1	1	0	
4:30 PM	1	1	0	0	
4:45 PM	2	2	0	0	
5:00 PM	3	2	0	0	
5:15 PM	2	1	1	1	
5:30 PM	3	2	1	1	
5:45 PM	3	1	1	0	
6:00 PM	2	1	1	1	
6:15 PM	4	2	0	1	
6:30 PM	3	1	0	1	
6:45 PM	2	1	0	1	
Totals	50	23	5	7	



MAX QUEUE

Location: Quick Quack Car Wash, 31615 Yucaipa Blvd

City: Yucaipa, CA

Day: Saturday

Date: 9/10/2022

Time	MAX Queue Length (Number of Vehicles)				Notes
	Queue Length			WASH ZONE to PAY AREA	
	Lane 1	Lane 2	Lane 3		
11:00 AM	1	0	0	2	
11:15 AM	1	0	0	1	
11:30 AM	1	0	0	1	
11:45 AM	2	0	0	1	
12:00 PM	1	0	0	2	
12:15 PM	1	1	0	2	
12:30 PM	2	1	0	2	
12:45 PM	1	1	0	1	
1:00 PM	1	0	0	1	
1:15 PM	2	1	0	2	
1:30 PM	2	1	0	2	
1:45 PM	2	2	0	5	
Totals	17	7	0	22	

