

GLEN HELEN AND CAJON GAS STATION TRAFFIC IMPACT ANALYSIS

County of San Bernardino

July 3, 2024



Traffic Engineering • Transportation Planning • Parking • Noise & Vibration
Air Quality • Global Climate Change • Health Risk Assessment

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County of San Bernardino

July 3, 2024

prepared by

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Project No. 19532

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EXECUTIVE SUMMARY

This section summarizes the proposed project, operational findings, and identifies recommendations (if any) as specified in this study.

Project Description

The 1.4-acre project site (APN 0349-182-11) is located at the south quadrant of the Glen Helen Parkway and Cajon Boulevard intersection in the County of San Bernardino, California. The project site is currently vacant and zoned Glen Helen Specific Plan-Commercial/Traveler Services (GH/SP-C/TS).

The proposed project (PROJ-2022-00213) consists of the construction of an 1,848 square foot convenience market with gas station (12-fueling positions for passenger vehicles, 6-fueling positions for trucks) and a 1,057 square foot fast-food restaurant with drive-through window. Vehicle access for the project site is proposed via two driveways on Cajon Boulevard and one driveway on the Glen Helen Spur.

Project Trip Generation

The proposed project is forecast to generate a total of approximately 4,800 new PCE daily trips, including 232 new PCE trips during the AM peak hour and 254 new PCE trips during the PM peak hour.

Level of Service Analysis

The study intersections currently operate or are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for the Existing and Existing Plus Project analysis scenarios. The proposed project is forecast to result in no substantial transportation effects relating to Level of Service operations for Existing Plus Project and Opening Year (2025) With Project conditions.

The study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for the Opening Year (2025) Without Project conditions except for the following intersection that is forecast to operate at an unacceptable Level of Service during the peak hours:

- 3. Glen Helen Parkway (NS) at Cajon Boulevard (EW) (LOS E – PM)

The study intersections are forecast to continue operating within acceptable Levels of Service (D or better) during the peak hours for the Opening Year (2025) With Project conditions except for the following intersection that is forecast to operate at an unacceptable Level of Service during the peak hours:

- 3. Glen Helen Parkway (NS) at Cajon Boulevard (EW) (LOS E – AM/F - PM)

The study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for the Year 2040 Without Project conditions except for the following intersections that are forecast to operate at unacceptable Levels of Service during the peak hours:

- 2. Glen Helen Parkway (NS) at I-215 Southbound Ramp (EW) (LOS E – PM)
- 3. Glen Helen Parkway (NS) at Cajon Boulevard (EW) (LOS F – AM/PM)

The study intersections are forecast to continue operating within acceptable Levels of Service (D or better) during the peak hours for the Year 2040 With Project conditions except for the following intersections that are forecast to operate at unacceptable Levels of Service during the peak hours:

- | | |
|--|-------------------|
| 2. Glen Helen Parkway (NS) at I-215 Southbound Ramp (EW) | (LOS E – AM/F-PM) |
| 3. Glen Helen Parkway (NS) at Cajon Boulevard (EW) | (LOS F – AM/PM) |

Summary of Improvements

The following Level of Service impact improvements are recommended to maintain acceptable Levels of Service at the study intersections for Opening Year (2025) With Project conditions:

3. Glen Helen Parkway (NS) at Cajon Boulevard (EW)
 - Install a traffic signal

The Glen Helen Parkway at Cajon Boulevard intersection improvements are anticipated to be installed either during the construction of this project or during the construction of the Glen Helen Truck Trailer Yard (S18) located northwest of the Glen Helen Parkway at Glen Helen Road intersection (#5). A fair share contribution to this intersection is shown as the Glen Helen Truck Trailer Yard (S18) is currently expected to be complete prior to the proposed project. The project will either install the above-listed improvements or provide a fair share to the improvement construction.

The following Level of Service impact improvements are recommended to maintain acceptable Levels of Service at the study intersections for Year 2040 Without Project conditions in addition to the improvements previously identified for Opening Year (2025) conditions:

2. Glen Helen Parkway (NS) at I-215 Southbound Ramp (EW)
 - Construct one additional lane for the northbound approach to provide one-through lane and one-right-turn lane
3. Glen Helen Parkway (NS) at Cajon Boulevard (EW)
 - Construct one additional lane for the southbound approach to provide two left-turn lanes and one through-right-turn lane

For the Year 2040 analysis scenarios, the existing lane configurations for Glen Helen Parkway between Cajon Creek and Cajon Boulevard are included in the traffic analysis to provide a conservative traffic analysis for this report. Currently, Glen Helen Parkway is one lane in each direction west of the roadway median.

For the “With Improvements” analysis scenarios, the future lane configurations for Glen Helen Parkway between the Glen Helen Railway Bridge to Cajon Boulevard are included in the analysis. The Glen Helen Cajon Creek Bridge Project is in the final design, approval and permitting process with an anticipated construction start date in late 2024. Therefore, the bridge and Glen Helen Parkway should be open with two lanes in each direction in Year 2040.

The proposed project is forecast to operate within acceptable Levels of Service (D or better) during the peak hours with the previously listed improvements.

Site Access Improvements

Project design features, necessary to provide project access, are outlined in the Site Access & On-Site Circulation (see Section 7).

Vehicle Miles Traveled Analysis

For compliance with California Environmental Quality Act (CEQA) requirements, the project satisfies the County-established vehicle miles traveled (VMT) screening criteria; therefore, the proposed project may be

presumed to result in a less than significant VMT impact. The project VMT assessment is documented in Vehicle Miles Traveled Analysis (Section 9) of this report.

1. INTRODUCTION

This section provides an overview of the proposed project and the general scope of the analysis.

PURPOSE AND OBJECTIVES

The purpose of this study is to evaluate the potential for transportation impacts resulting from the development of the proposed project in the context of the County of San Bernardino's discretionary authority for conformance with locally established operational standards. Although this is a technical report, effort has been made to prepare the report clearly and concisely. A glossary is provided in Appendix A to assist the reader with technical terms.

This study was prepared in consultation with the County of San Bernardino staff following the procedures and methodologies for assessing transportation impacts established by the County of San Bernardino. To assess the project's conformance with local operational standards, this study evaluates the project's effect on traffic operations and, if necessary, identifies recommended improvements or corrective measures to alleviate operational deficiencies substantially caused or worsened by the proposed project. For compliance with California Environmental Quality Act (CEQA) requirements, a vehicle miles traveled (VMT) assessment documented in Vehicle Miles Traveled Analysis (Section 9) of this report.

PROJECT DESCRIPTION

The 1.4-acre project site (APN 0349-182-11) is located at the south quadrant of the Glen Helen Parkway and Cajon Boulevard intersection in the County of San Bernardino, California. The project site is currently vacant and zoned Glen Helen Specific Plan-Commercial/Traveler Services (GH/SP-C/TS). Figure 1 and Figure 2 show the regional and project location maps.

The proposed project (PROJ-2022-00213) consists of the construction of an 1,848 square foot convenience market with gas station (12-fueling positions for passenger vehicles, 6-fueling positions for trucks) and a 1,057 square foot fast-food restaurant with drive-through window. Vehicle access for the project site is proposed via two driveways on Cajon Boulevard and one driveway on the Glen Helen Spur. Figure 3 illustrates the project site plan.

SCOPE OF ANALYSIS

The scope of this analysis was determined in consultation with the County of San Bernardino as documented in the County -approved scoping agreement provided in Appendix B.

Study Area

Figure 4 illustrates the study area. In accordance with the County of San Bernardino requirements, the study area was determined in consultation with the County of San Bernardino engineering staff and consists of classified roadway intersections to which the project is forecast to contribute 50 or more peak hour trips or that are within 300 feet of an intersection of two roadways designated as collector or higher. Based on the project trip generation and distribution forecasts presented later in this report, the study area consists of the following study intersections, each within the County of San Bernardino jurisdiction:

1. Glen Helen Parkway (NS) at I-215 Northbound Ramp (EW)¹
2. Glen Helen Parkway (NS) at I-215 Southbound Ramp (EW)
3. Glen Helen Parkway (NS) at Cajon Boulevard (EW)

¹ (NS) = north-south roadway; (EW) = east-west roadway.

4. Glen Helen Parkway (NS) at Glen Helen Spur (EW)
5. Glen Helen Parkway (NS) at Clearwater Parkway (EW)
6. Cajon Boulevard (NS) at Kendall Drive (EW)
7. Project East Driveway (NS) at Cajon Boulevard (EW)
8. Project West Driveway (NS) at Cajon Boulevard (EW)
9. Project Driveway (NS) at Glen Helen Spur (EW)

Analysis Scenarios

This study includes an evaluation of the following analysis scenarios for weekday AM and PM peak hour conditions:

- Existing
- Existing Plus Project
- Opening Year (2025) Without Project
- Opening Year (2025) With Project
- Year 2040 Without Project
- Year 2040 With Project



Figure 1
Regional Vicinity Map



Figure 2
Project Location Map

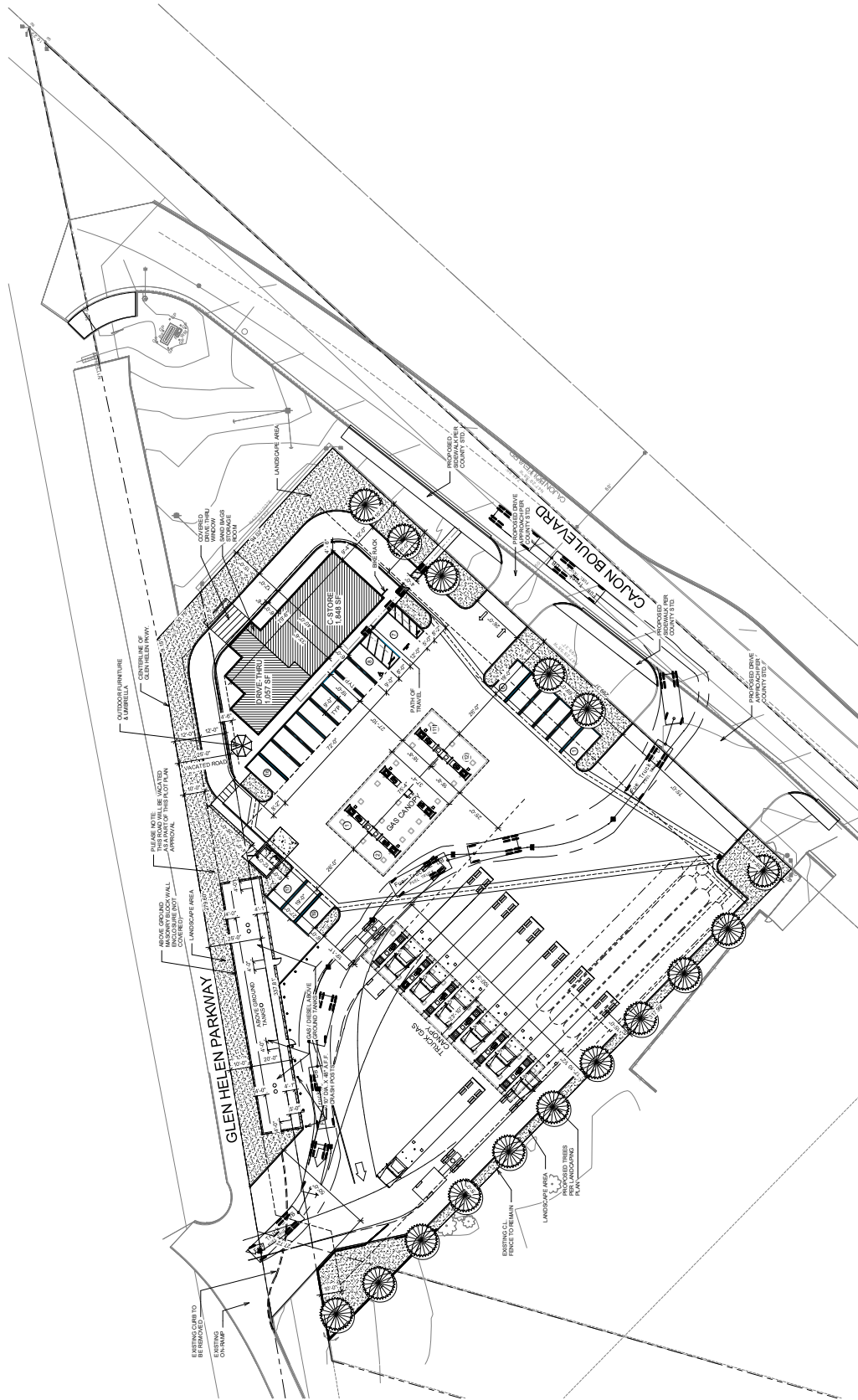


Figure 3
Site Plan



Legend

- # Study Intersection
- # Project Driveway

Figure 4
Study Area

2. METHODOLOGY

This section discusses the analysis methodologies used to assess transportation facility performance as adopted by the respective jurisdictional agencies. This traffic impact analysis was prepared in accordance with the *County of San Bernardino Transportation Impact Study Guidelines* (July 2019) ["County TIA Guidelines"].

LEVEL OF SERVICE/OPERATIONAL ANALYSIS METHODOLOGY (Non-CEQA)

Level of Service (LOS) analysis is performed to assess conformance with General Plan and operational standards established by the applicable agencies. In accordance with current CEQA provisions, a project's effect on automobile delay (as measured by Level of Service) shall not constitute a significant environmental impact.

Intersections Delay Methodology

The methodology used to assess the performance of intersections in the County of San Bernardino is known as the intersection delay methodology based on procedures contained in the *Highway Capacity Manual* (HCM) (Transportation Research Board, 7th Edition). The methodology considers the traffic volume and distribution of movements, traffic composition, geometric characteristics, and signalization details to calculate the average control delay per vehicle and corresponding Level of Service. Control delay is defined as the portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign) and includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay. Intersection delay analysis was performed with default capacity values and adjustment factors recommended in the HCM. The intersection Level of Service is based on the thresholds contained within the HCM.

Level of Service	Intersection Control Delay (Seconds / Vehicle)	
	Unsignalized Intersection	Unsignalized Intersection
A	≤ 10.0	≤ 10.0
B	> 10.0 to ≤ 20.0	> 10.0 to ≤ 15.0
C	> 20.0 to ≤ 35.0	> 15.0 to ≤ 25.0
D	> 35.0 to ≤ 55.0	> 25.0 to ≤ 35.0
E	> 55.0 to ≤ 80.0	> 35.0 to ≤ 50.0
F	> 80.0	> 50.0

Source: Transportation Research Board *Highway Capacity Manual* (7th Edition).

Level of Service is used to qualitatively describe the performance of a roadway facility, ranging from Level of Service A (free-flow conditions) to Level of Service F (extreme congestion and system failure). At intersections with either traffic signal or all-way-stop control, Level of Service is determined by the average control delay for the overall intersection. At intersections with cross street stop control (i.e., one- or two-way stop control), Level of Service is determined by the average control delay for the worst minor street approach or major street left-turn movement. Intersection delay and Level of Service calculations were performed using the Vistro software in accordance with parameters specified in the County TIA Guidelines.

Performance Standards

The definition of an intersection deficiency has been obtained from the County of San Bernardino General Plan. The General Plan states that peak hour intersection operations of Levels of Service D or better are generally acceptable in the Valley or Mountain regions and Levels of Service C or better are generally acceptable in the Desert region. Therefore, any intersection operating at Level of Service E or F is considered

deficient in all regions of the County and Level of Service D or worse is considered deficient for the Desert region of the County.

Substantial Operational Deficiency Criteria

Signalized Intersections

The project site is located in the Valley region of the County; therefore, the following criteria are used to evaluate General Plan consistency requirements at signalized study intersections:

- Any signalized study intersection operating at an acceptable Level of Service (D or better) without project traffic in which the addition of project traffic causes the intersection to degrade to a deficient Level of Service (E or F) shall identify improvements to improve operations to acceptable Level of Service (D or better).
- Any signalized study intersection that is operating at a deficient Level of Service (E or F) without project traffic where the project increases delay by 5.0 or more seconds shall identify improvements to offset the increase in delay.

Unsignalized Intersections

An operational improvement is required if the study determines that either section a) or both sections b) and c) occur:

- a) The addition of project related traffic causes the intersection to degrade from an acceptable Level of Service (D or better in the Valley region) to deficient Level of Service E or F.
OR
- b) The project adds 5.0 seconds or more of delay to an intersection that is already projected to operate without project traffic at a deficient Level of Service (E or F or in the Valley Region).
AND
- c) One or both of the following conditions are met:
 - 1) The project adds ten (10) or more trips to any minor street approach.
 - 2) The intersection meets the peak hour traffic signal warrant after the addition of project traffic.

Where improvements are identified to address Level of Service deficiencies, a project fair share cost estimate is provided based on the volume of project traffic using the impacted facility divided by the total “new” traffic (i.e., ambient growth and other developments).

VEHICLE MILES TRAVELED ANALYTICAL METHODOLOGY (CEQA)

The metric used to evaluate the transportation impact of land use and transportation projects under current CEQA guidelines is known as vehicle miles traveled (VMT). In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region. The County of San Bernardino *Transportation Impact Study Guidelines*, July 2019) [“County TIA Guidelines”], were developed based on guidance from the Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (State of California, December 2018). The project VMT assessment is documented in Vehicle Miles Traveled Analysis (Section 9) of this report.

3. EXISTING CONDITIONS

This section describes the existing transportation setting of the project study area.

EXISTING ROADWAY SYSTEM

Figure 5 shows the lane geometry and intersection traffic controls for existing conditions based on a field survey of the study area. Regional access to the project site is provided by Interstate-215 approximately 0.2 miles north of the project site and Interstate-15 approximately 1.6 miles to the south. Local north-south circulation is provided by Glen Helen Parkway and Clearwater Parkway and east-west circulation is provided by Cajon Boulevard, Kendall Drive, and Glen Helen Spur.

Glen Helen Parkway: This two-undivided to four-lane divided (two-way left-turn lane) roadway trends in a north-south direction and is classified as a Major Highway (four-lane divided roadway with 10-foot shoulders) south of Cajon Boulevard and classified as a Secondary Highway (four-lane undivided roadway with 8-foot shoulders) north of Cajon Boulevard on the County of San Bernardino General Plan Circulation Element in the study area. On-street parking is prohibited on both sides of the roadway. There are currently no designated bicycle facilities in the project vicinity. Sidewalks are provided on the east side of the roadway from the I-215 southbound ramp to the Glen Helen bridge south of the Glen Helen Spur. The speed limit is not posted in the study area.

Clearwater Parkway: This four-lane divided (two-way left-turn lane) roadway trends in a north-south direction and is classified as a Major Highway (four-lane divided roadway with 10-foot shoulders) on the County of San Bernardino General Plan Circulation Element in the study area. On-street parking is prohibited on both sides of the roadway. There are currently no designated bicycle facilities in the project vicinity. Sidewalks are not provided on either side of the roadway. The speed limit is not posted in the study area.

Cajon Boulevard: This two-undivided to four-lane divided (two-way left-turn lane) roadway trends in an east-west direction and is classified as a Major Highway (four-lane divided roadway with 10-foot shoulders) on the County of San Bernardino General Plan Circulation Element in the study area. On-street parking is prohibited on both sides of the roadway. There are currently no designated bicycle facilities in the project vicinity; however, Class II bike lanes are proposed for this roadway. Sidewalks are provided on the south side of the roadway adjacent to developed frontage. The speed limit is not posted in the study area.

Kendall Drive: This two-lane undivided roadway trends in an east-west direction and is classified as a Secondary Highway (four-lane undivided roadway with 8-foot shoulders) on the County of San Bernardino General Plan Circulation Element in the study area. On-street parking does not appear to be restricted on either side of the roadway. There are currently no designated bicycle facilities in the project vicinity. Sidewalks are not provided on either side of the roadway. The speed limit is not posted in the study area.

Glen Helen Spur: This two-undivided roadway trends in an east-west direction and is unclassified on the County of San Bernardino General Plan Circulation Element in the study area. On-street parking does not appear to be restricted. There are currently no designated bicycle facilities in the project vicinity. Sidewalks are not provided on either side of the roadway. The speed limit is not posted in the study area.

PEDESTRIAN FACILITIES

Existing pedestrian facilities in the project vicinity are shown in Figure 6. As shown in Figure 6, sidewalks are not provided along the project site frontage, currently.

TRANSIT FACILITIES

Figure 7 shows the existing Omnitrans system map in the project vicinity. There are no services in the study area.

GENERAL PLAN CONTEXT

Figure 8 shows the County of San Bernardino General Plan Circulation Element roadway classifications map. This figure shows the nature and extent of arterial and collector highways that are needed to adequately serve the ultimate development depicted by the Land Use Element of the General Plan. The County of San Bernardino standard roadway cross-sections are illustrated in Figure 9.

BICYCLE FACILITIES MASTER PLAN

The County of San Bernardino Bicycle Master Plan is shown in Figure 10. This figure shows the bicycle facilities master plan. As shown in Figure 10, there are proposed Class II bike lanes on Cajon Boulevard.

DESIGNATED TRUCK ROUTES

The County of San Bernardino Truck Routes are shown in Figure 11. This figure shows the designated truck routes. As shown in Figure 11, I-215 and I-15 are designated truck routes on the County Plan.

EXISTING ROADWAY VOLUMES

Figure 12 shows the existing average daily traffic volumes. The existing average daily traffic volumes have been factored from peak hour intersection turning movement volumes at locations using the following formula for each intersection leg:

$$\text{PM Peak Hour (Approach Volume + Exit Volume)} \times 11.5 = \text{Leg Volume}$$

Figure 13 and Figure 14 show the existing AM and PM peak hour intersection turning movement volumes. Existing peak hour intersection turning movement volumes are based upon AM peak period and PM peak period intersection turning movement counts obtained in January 2023 during typical weekday conditions. The weekday AM peak period was counted between 7:00 AM and 9:00 AM and the weekday PM peak period was counted between 4:00 PM and 6:00 PM; these periods generally capture the peak times for commuter traffic when the roadway system is typically experiencing peak demand. The actual peak hour within each two-hour count period is determined based on the sum of the four consecutive 15-minute periods with the highest total volume entering the intersection. Thus, the weekday PM peak hour at one intersection may be 4:45 PM to 5:45 PM and may vary at other intersections depending on the four consecutive 15-minute periods that have the highest total volume. Intersection turning movement count worksheets are provided in Appendix C.

EXISTING INTERSECTION LEVEL OF SERVICE

The study intersection Levels of Service for Existing conditions are shown in Table 1. Detailed Level of Service worksheets are provided in Appendix D.

As shown in Table 1, the study intersections currently operate within acceptable Levels of Service (D or better) during peak hours.

Table 1
Existing Intersection Levels of Service

Study Intersection	Traffic Control ¹	AM Peak Hour		PM Peak Hour	
		Delay ²	LOS ³	Delay ²	LOS
1. Glen Helen Parkway at I-215 NB Ramps	AWS	8.7	A	9.2	A
2. Glen Helen Parkway at I-215 SB Ramps	AWS	10.1	B	11.2	B
3. Glen Helen Parkway at Cajon Boulevard	AWS	12.6	B	15.2	C
4. Glen Helen Parkway at Glen Helen Spur	CSS	0.0	A	0.0	A
5. Glen Helen Parkway at Glen Helen Road	CSS	9.7	A	9.3	A
6. Glen Helen Parkway at Clearwater Pkwy	TS	24.2	C	19.6	B

Notes:

1. AWS = All Way Stop; TS = Traffic Signal; CSS = Cross Street Stop
2. Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn movement.
3. LOS = Level of Service

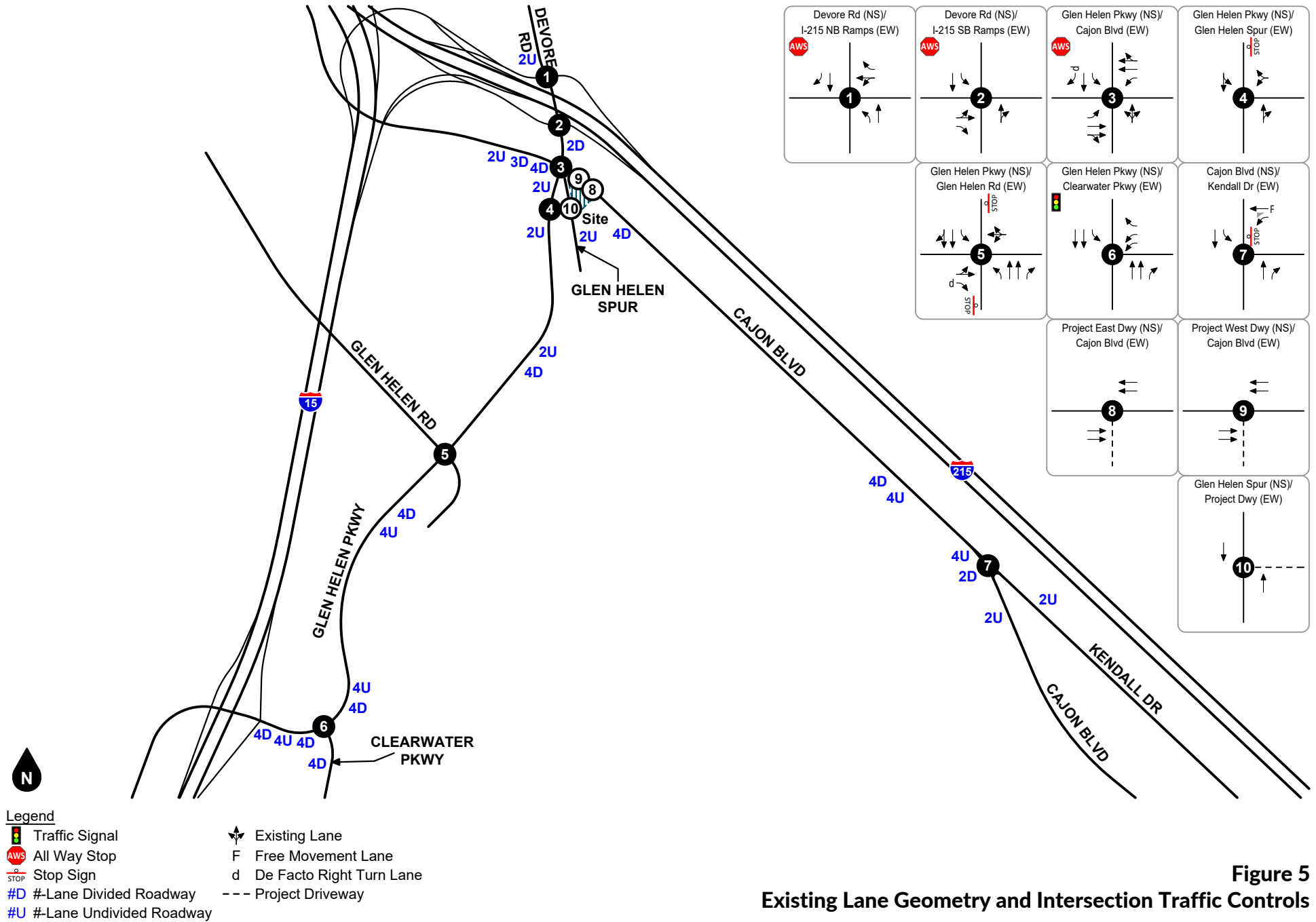


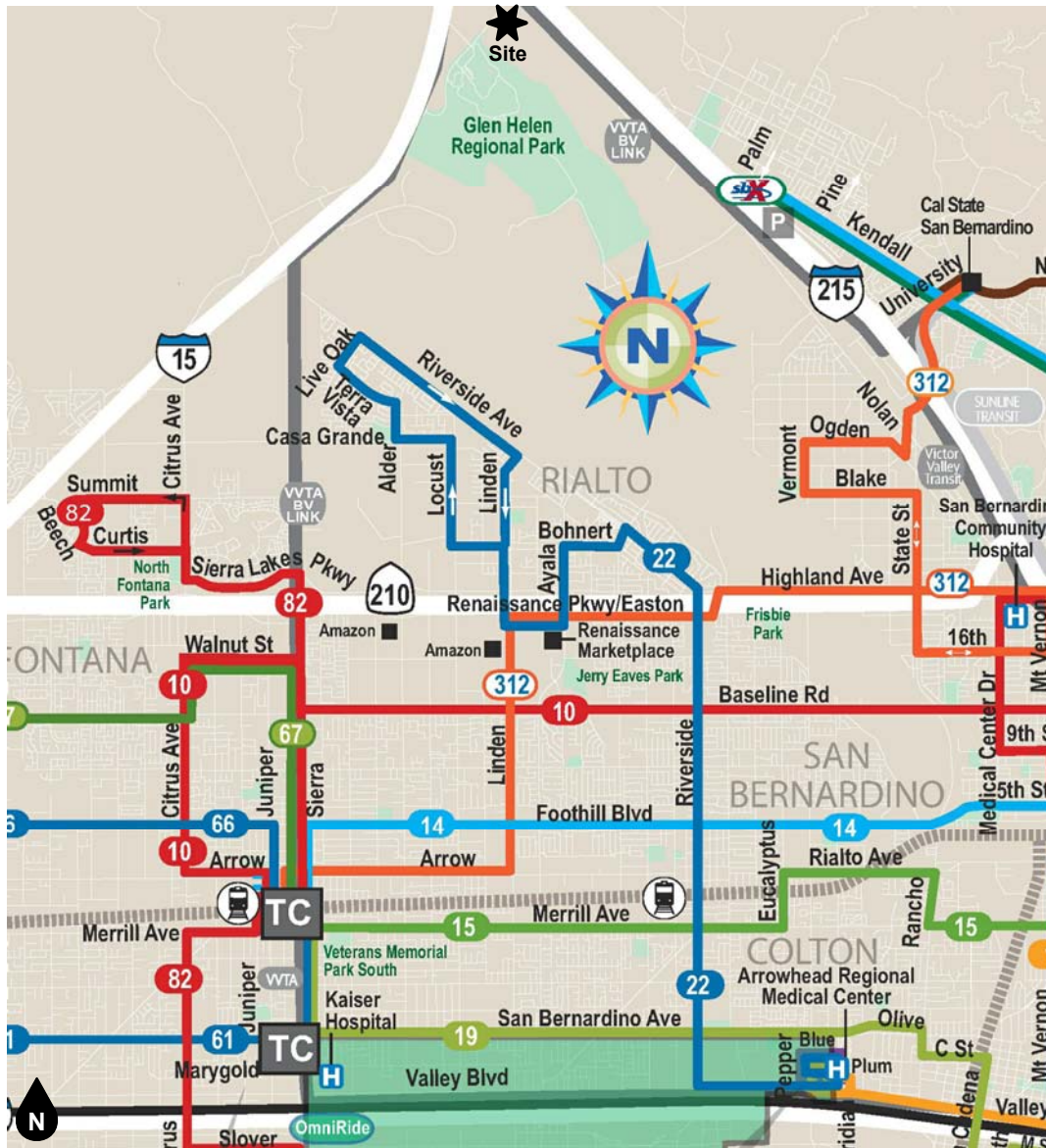
Figure 5
Existing Lane Geometry and Intersection Traffic Controls

Glen Helen & Cajon Gas Station
Traffic Impact Analysis
19532



Legend
 — Sidewalk

Figure 6
Existing Pedestrian Facilities



Route	Route Name
	Palm/Kendall - Cal State - VA Hospital
	ARMC - San Bernardino Del Rosa
	Cal St - E St - Loma Linda
	Baseline - Highland - San Bdn
	San Bdn - Sierra Way - Cal State
	San Bdn - Mentone - Crafton Hills College
	Fontana - Baseline - San Bernardino
	Fontana - Foothill - San Bernardino
	Fontana - San Bernardino/Highland - Redlands
	Fontana - Colton - Redlands - Yucaipa
	North Rialto - Riverside Ave - ARMC
	Fontana - Ontario Mills - ONT Airport - Pomona
	Fontana - Foothill Blvd - Montclair
	Chaffey College - Baseline - Fontana
	Chino - Haven - Chaffey College
	Rancho Cucamonga - Fontana - Sierra Lakes
	Chino - Euclid Ave. - Upland
	Chino - Mountain Ave. - Upland
	Chino - Montclair - Chaffey College
	Chaffey College - Ontario - Eastvale
	Chino Hills - Ramona Ave. - Montclair
	Riverside - San Bernardino
	San Bernardino - ARMC - Ontario Mills - Montclair*
	SB Connect: Arrow Rail/SBTC - Downtown San Bdn
	San Bernardino - Waterman - Grand Terrace
	Fontana - Muscoy - Cal State
	Yucaipa - Sunnyside - County Line
	ONT Connect: Ontario International Airport - Rancho Cucamonga Metrolink
	OmniRide Bloomington
	OmniRide Chino/Chino Hills
	OmniRide Upland

* Route 290 temporarily suspended.
+ Coming Fall 2022.

Routes and schedules are subject to change without notice.

Figure 7
Existing Transit Routes

Source: Omnitrans

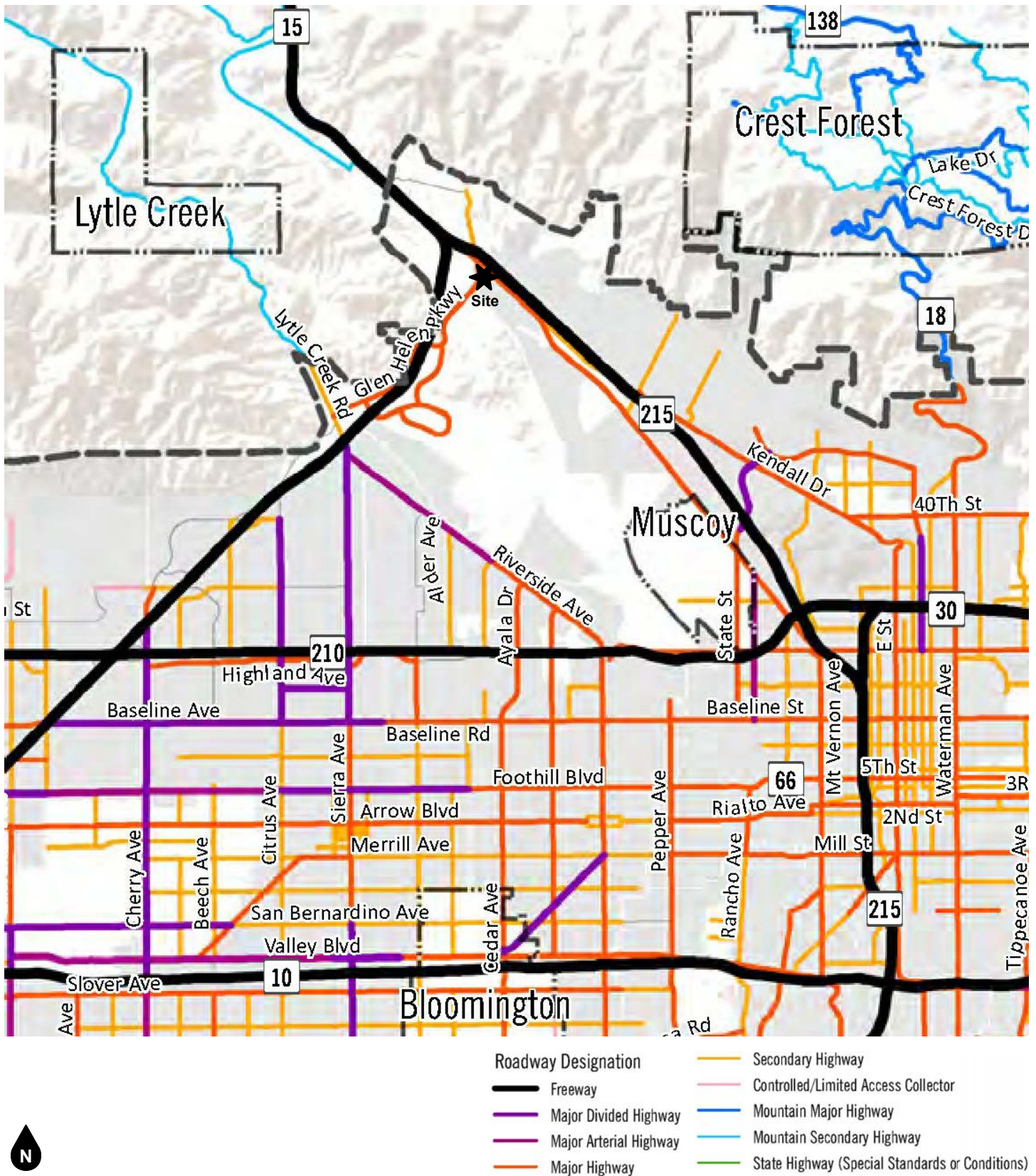


Figure 8
County of San Bernardino General Plan Circulation Element

Source: County of San Bernardino

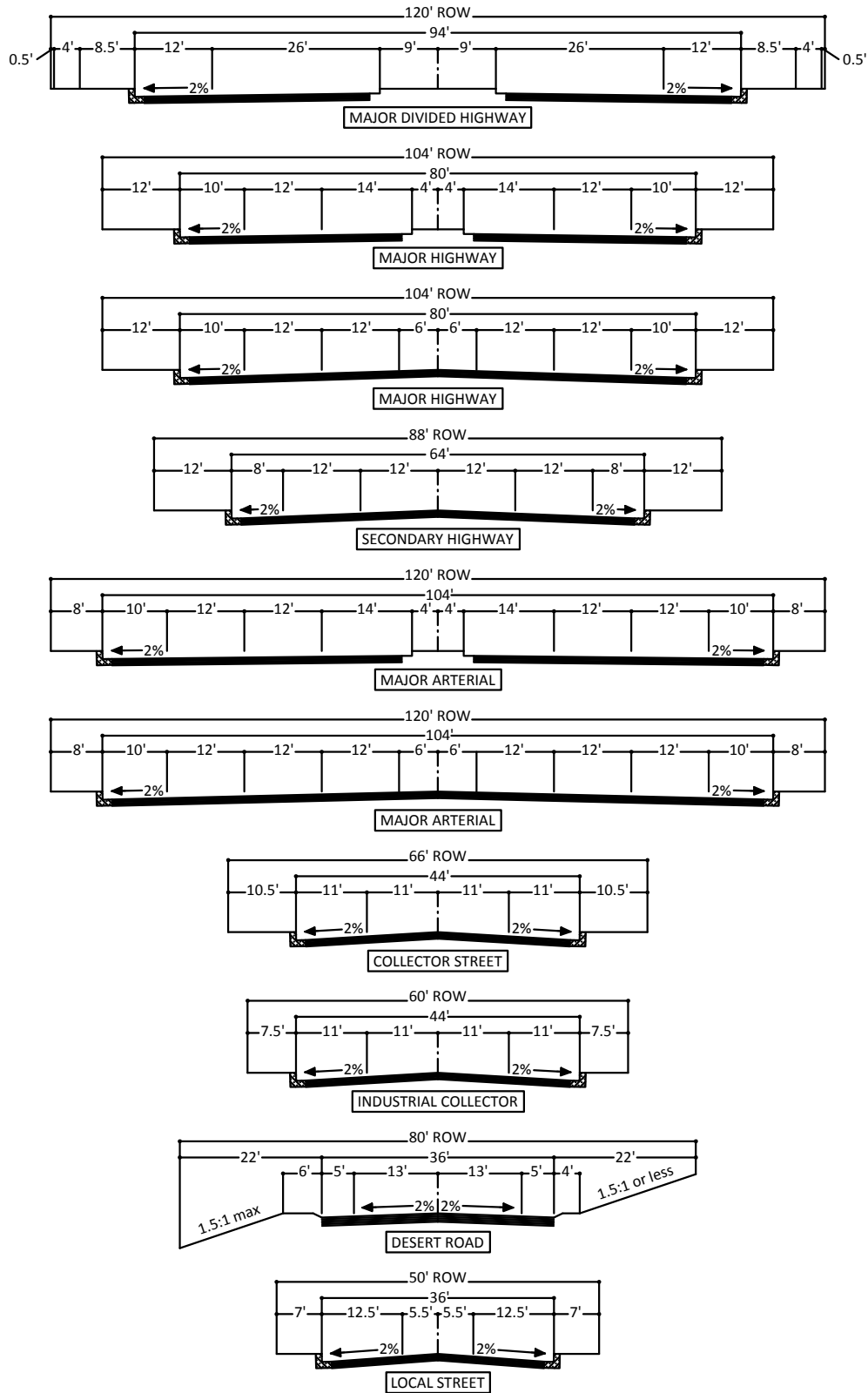


Figure 9
County of San Bernardino General Plan Roadway Cross-Sections

Source: County of San Bernardino

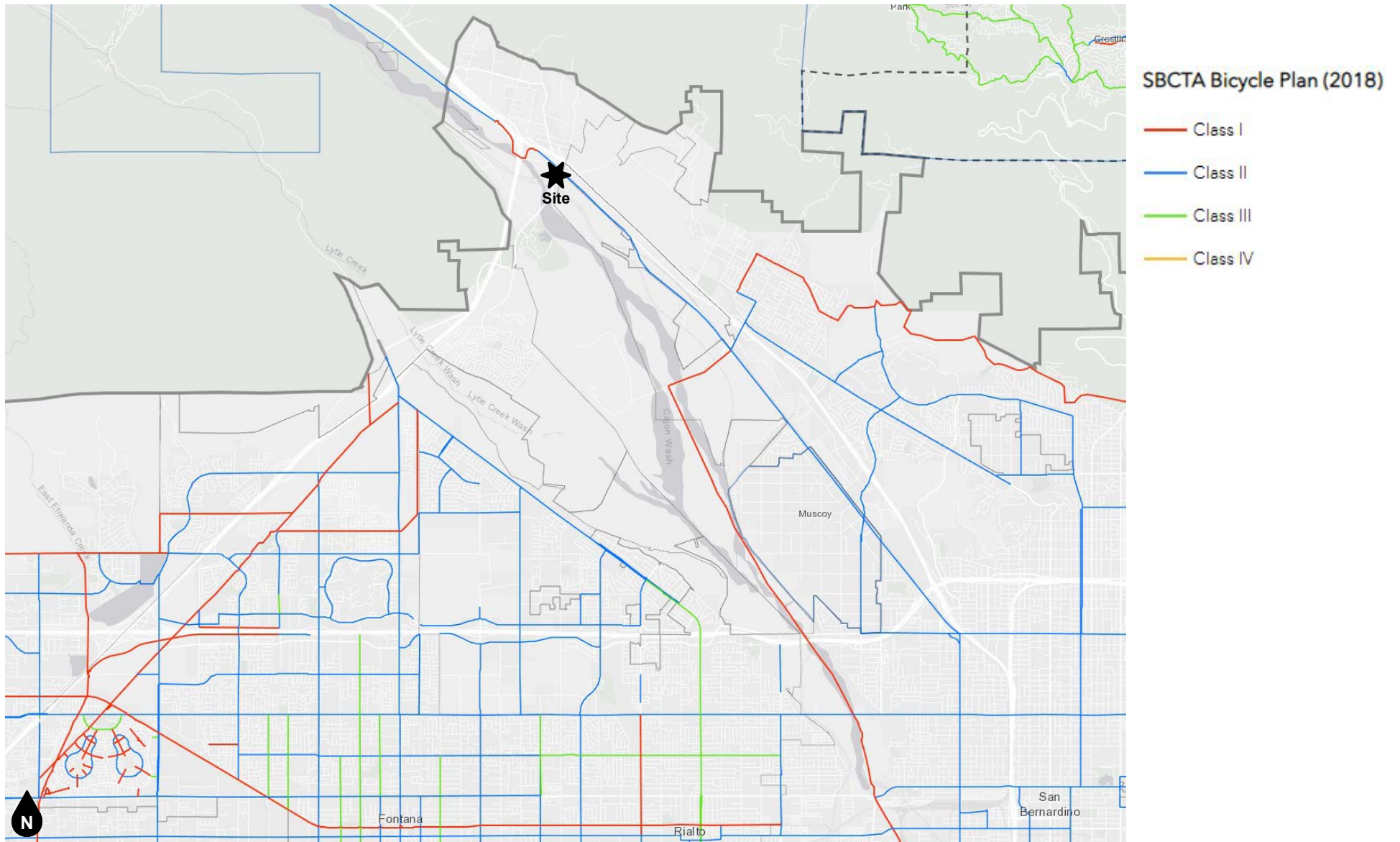


Figure 10
County of San Bernardino Bicycle Facilities Master Plan

Source: County of San Bernardino

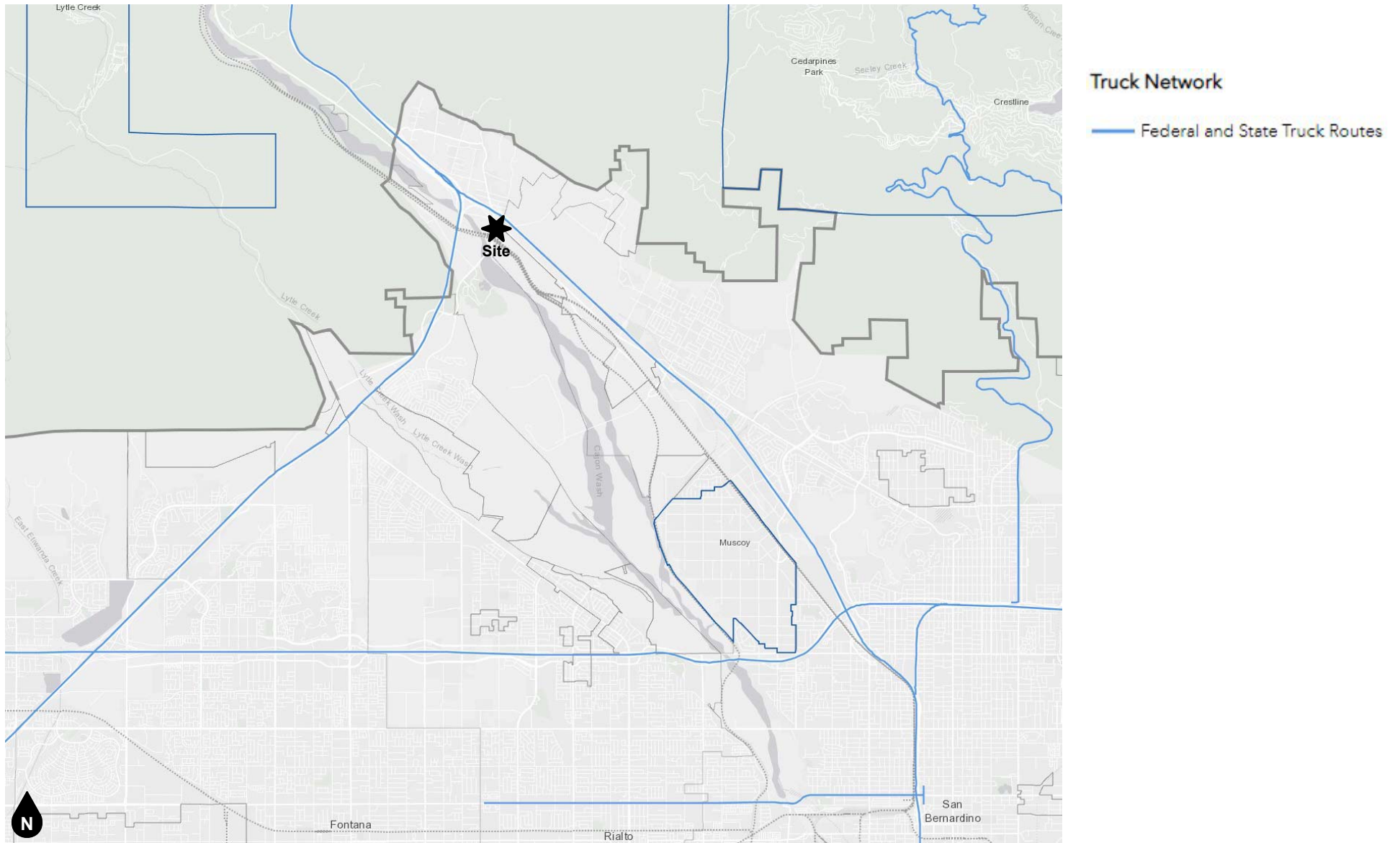


Figure 11
County of San Bernardino Truck Routes

Source: County of San Bernardino

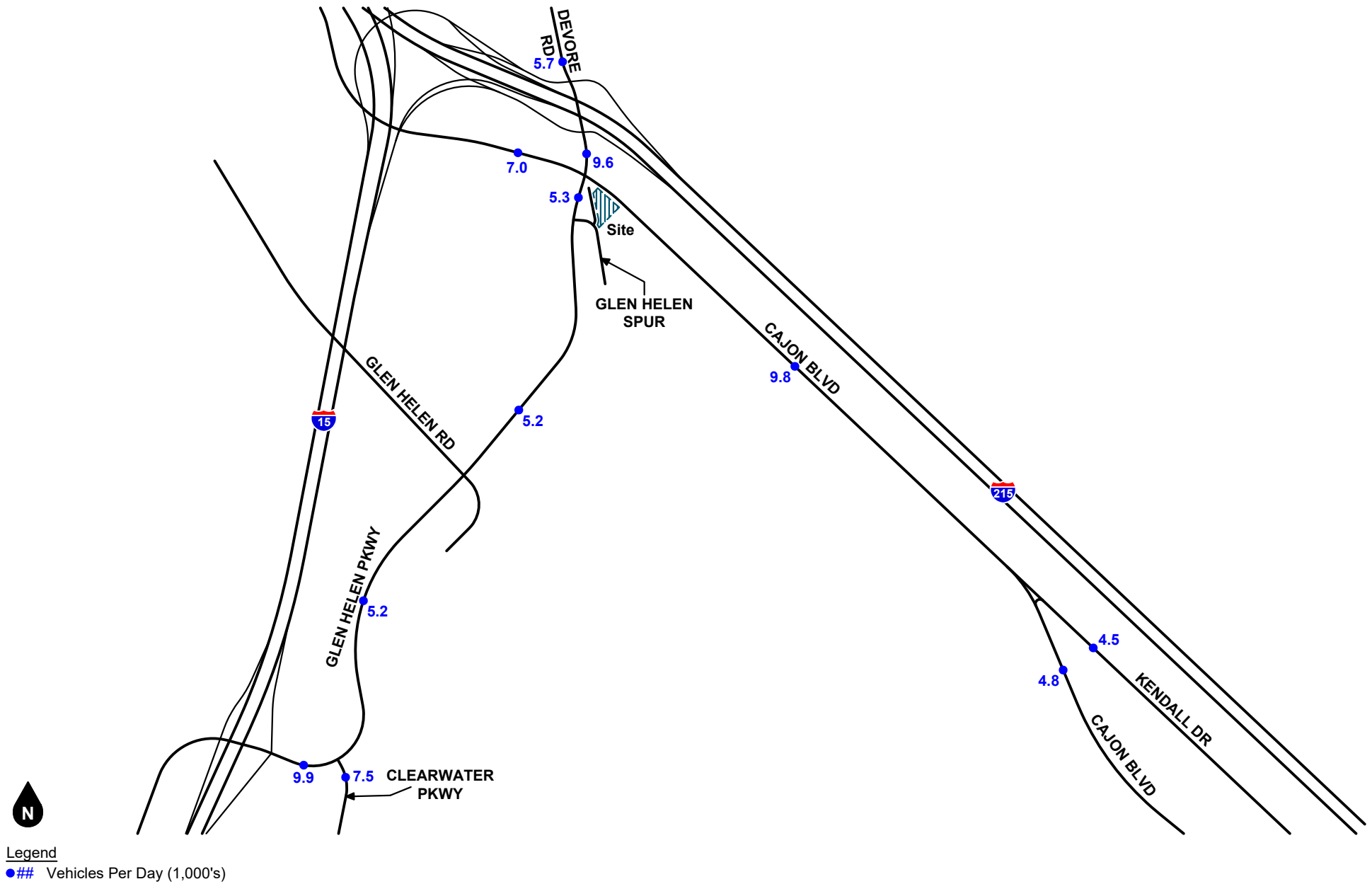


Figure 12
Existing Average Daily Traffic Volumes

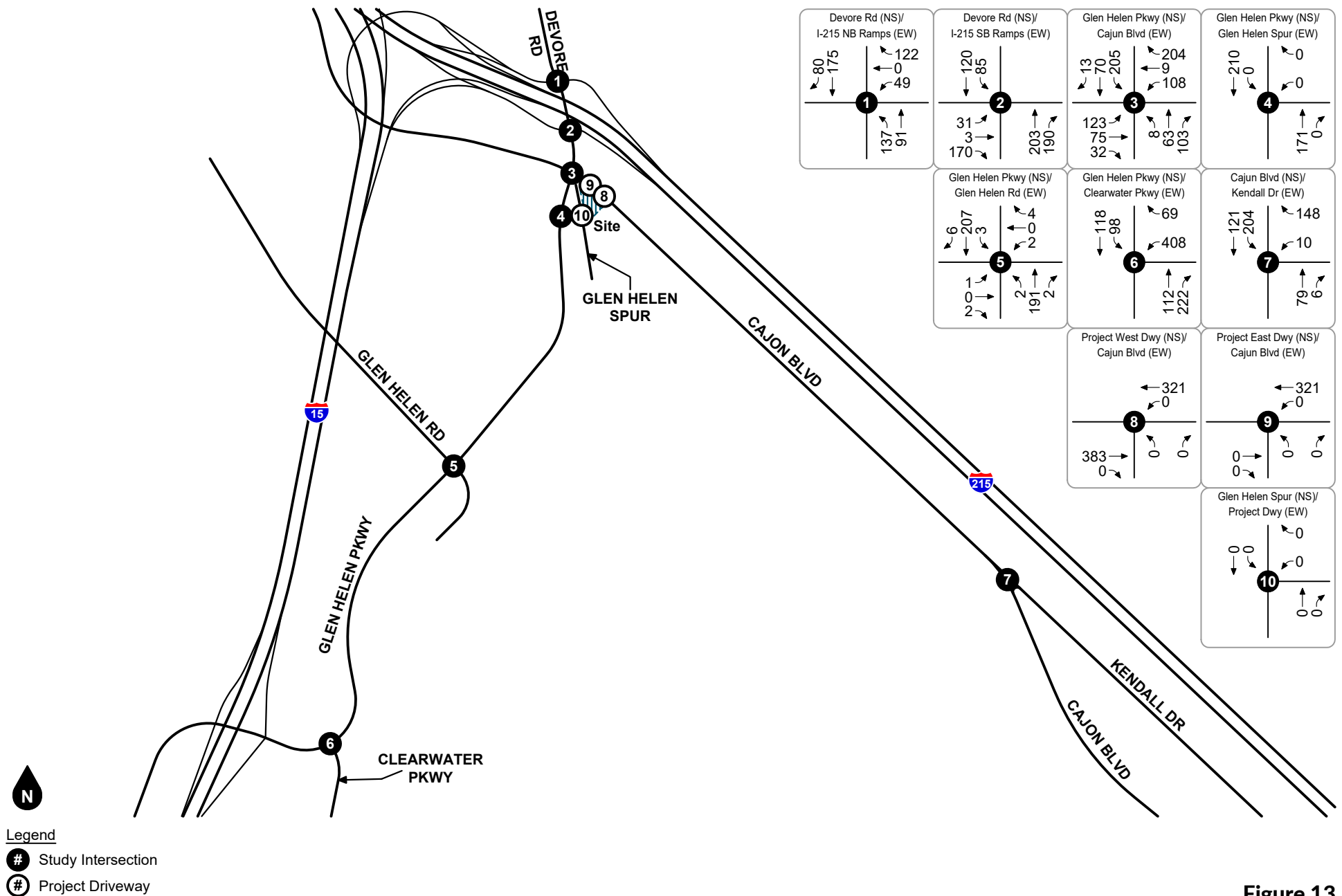


Figure 13
Existing AM Peak Hour Intersection Turning Movement Volumes

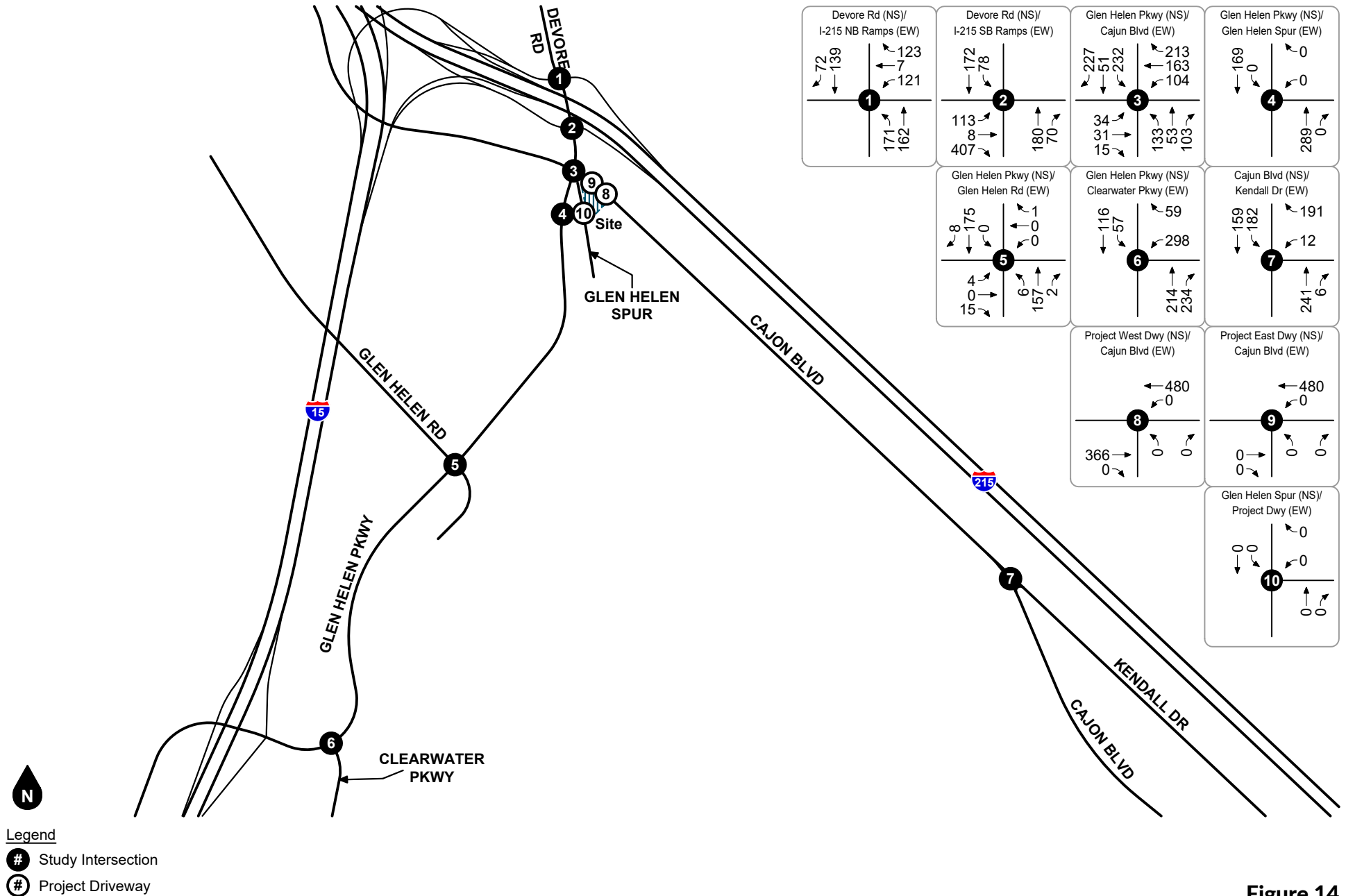


Figure 14
Existing PM Peak Hour Intersection Turning Movement Volumes

4. PROJECT TRIP FORECASTS

This section describes how project trip generation, trip distribution, and trip assignment forecasts were developed. The forecast project volumes are illustrated in the figures contained in this section.

PROJECT TRIP GENERATION

Table 2 shows the proposed project trip generation forecast is based on average rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021) for Land Use Codes 945 (Convenience Store Gas Station), 950 (Truck Stop), and 934 (Fast Food Restaurant with Drive-Through Window).

Internal Capture Adjustments

The project trip generation includes the applicable internal capture adjustments based on the methodology recommended by ITE. The proposed project includes two different land uses, so a portion of the trips generated by the proposed land uses are expected to remain internal to the site (e.g., a patron of the gas station may also visit the on-site restaurant). The trip generation rates contained in the ITE *Trip Generation Manual* represent vehicles entering and exiting at the site driveway(s); therefore, it is appropriate to reduce the initial trip generation forecast by the applicable internal capture rate when calculating the new trips generated by the project and added to the external roadway network. The ITE *Trip Generation Handbook* recommends use of the Transportation Research Board (TRB) *NCHRP Report 684* (2013) estimation tool worksheet to determine internal capture rates for trips within a mixed-use development. Internal capture worksheets are included in the scoping agreement provided in Appendix B.

Pass-by Trip Adjustments

The project trip generation includes pass-by trip adjustments based on average pass-by rates obtained from the ITE *Trip Generation Manual*. Land uses such as shopping centers, restaurants, gas stations, and convenience stores are often located next to busy roadways to attract motorists already on the street. Since the trip generation rates contained in the ITE *Trip Generation Manual* represent vehicles entering and exiting at the site driveway(s), it is appropriate to reduce the initial trip generation forecast by the applicable pass-by trip rate when calculating the net new trips that will be added to the surrounding street system. When there is no daily pass-by data provided in ITE *Trip Generation Manual Appendices*, the daily pass-by rate is determined by one-half of the average AM peak and PM peak pass-by rate. Pass-by trips are included at the project driveways and the adjacent Glen Helen Parkway at Glen Helen Spur intersection and applied after internal capture adjustments.

Truck Trips

The project trip generation was also calculated in terms of Passenger Car Equivalent (PCE) trips based on truck trips for ITE Land Use Code 950 (Truck Stop). To provide an equitable analysis, the truck mix by axle type percentages were assumed to be equivalent to the adjacent freeway truck mix.

Project Trips

As shown in Table 2, the proposed project is forecast to generate a total of approximately 4,800 new PCE daily trips, including 232 new PCE trips during the AM peak hour and 254 new PCE trips during the PM peak hour.

PROJECT TRIP DISTRIBUTION & ASSIGNMENT

Figure 15 through Figure 18 show the forecast outbound and inbound directional distribution patterns for the project generated trips, respectively. The project trip distribution patterns were developed using engineering judgment in consultation with County of San Bernardino engineering staff based on a review of existing traffic data, surrounding land uses, and the local and regional roadway facilities in the project vicinity.

Based on the identified project trip generation and distributions, project-generated average daily traffic volumes are shown in Figure 19. Project-generated AM peak hour and PM peak hour intersection turning movement volumes are shown in Figure 20 and Figure 21.

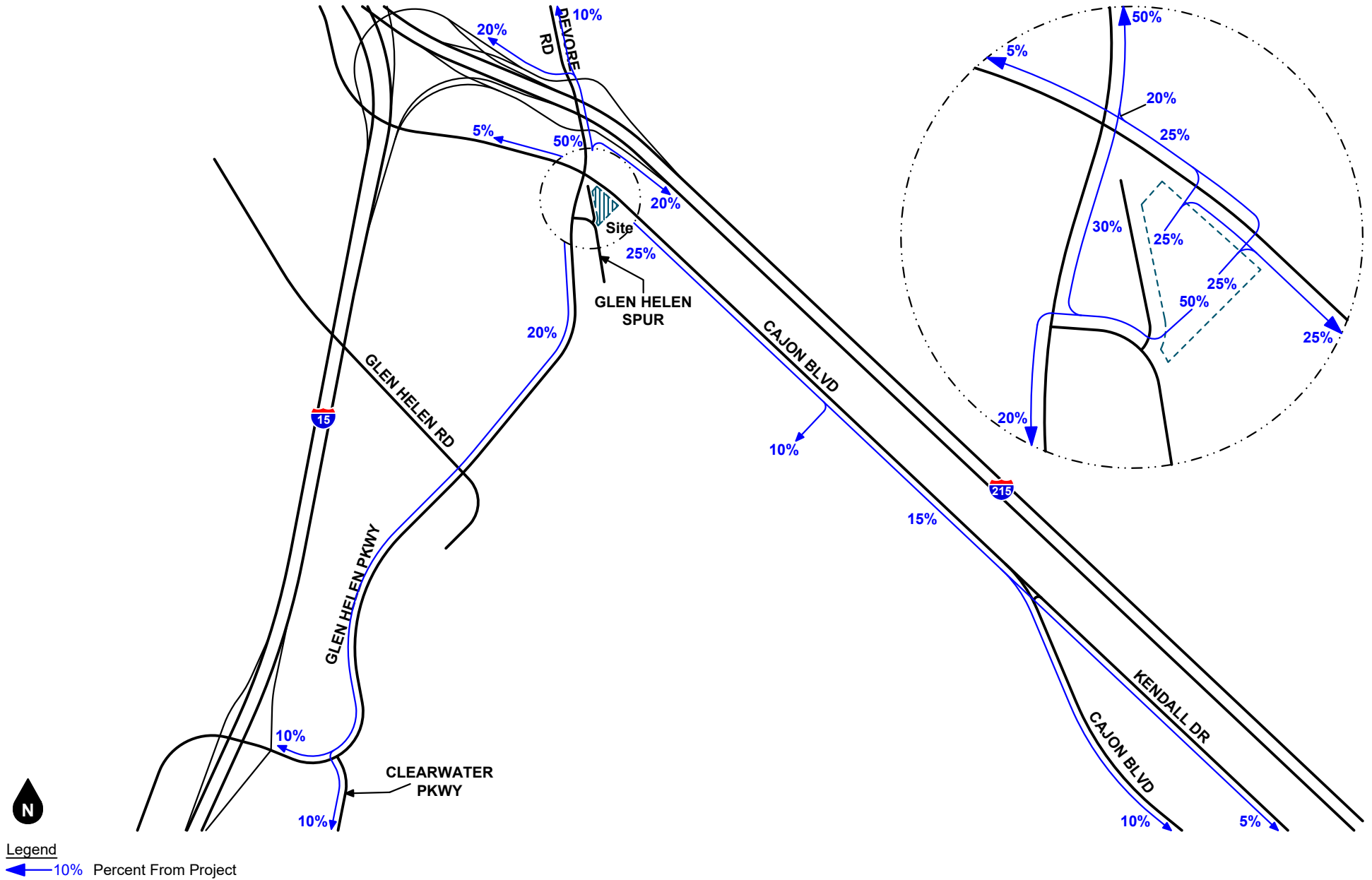
Table 1
Project Trip Generation

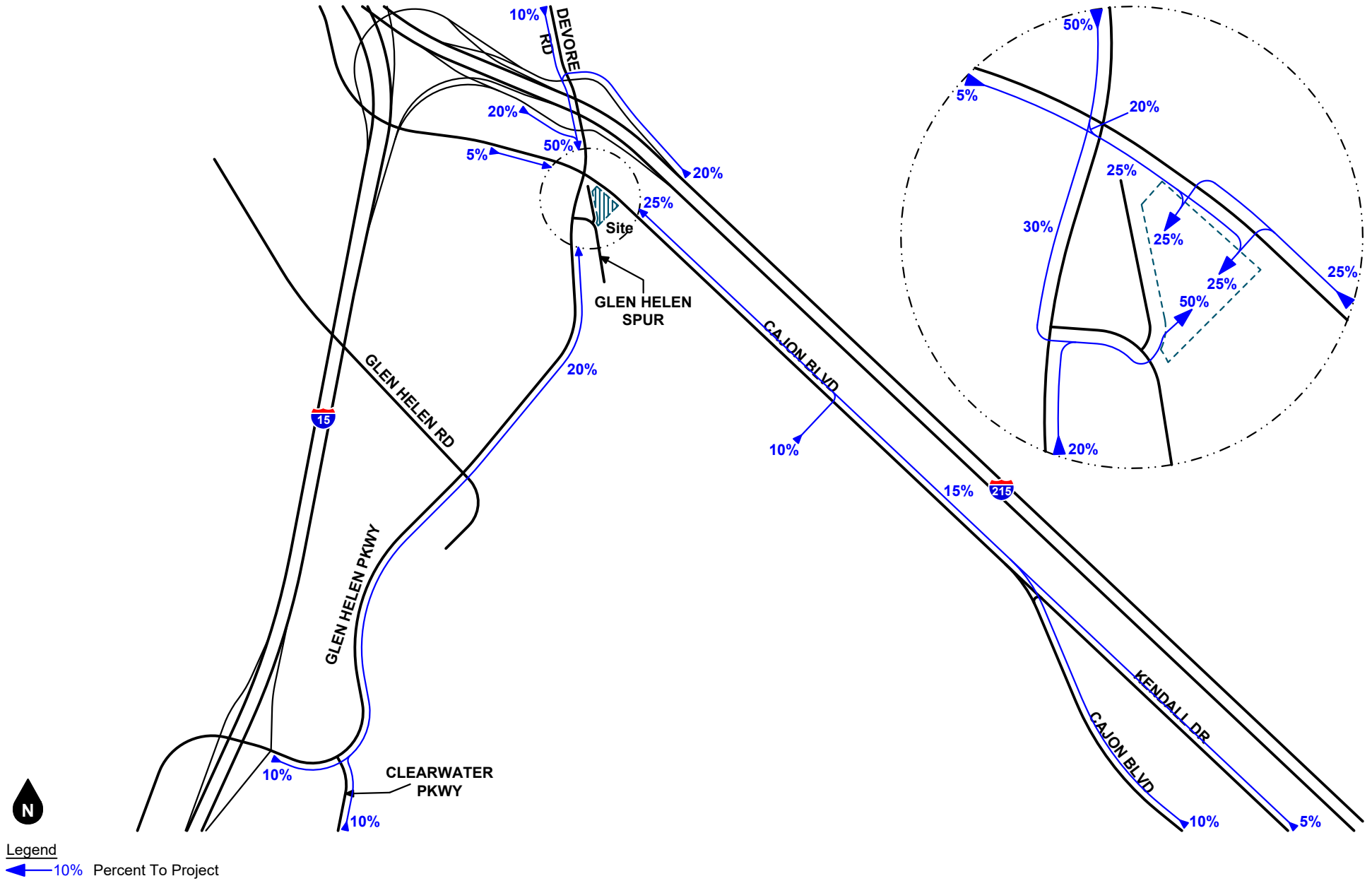
Trip Generation Rates									
Land Use	Source ¹	Land Use Variable ²	AM Peak Hour			PM Peak Hour			Daily Rate
			% In	% Out	Rate	% In	% Out	Rate	
Fast-Food Restaurant with Drive-Through Window	ITE 934	TSF	51%	49%	44.61	52%	48%	33.03	467.48
Convenience Store Gas Station (2-4 ksf GFA)	ITE 945	VFP	50%	50%	16.06	50%	50%	18.42	265.12
Convenience Store Gas Station (9-15 VFP)	ITE 945	TSF	50%	50%	56.52	50%	50%	54.52	700.43
Truck Stop	ITE 950	VFP	49%	51%	13.97	53%	47%	15.42	224.00

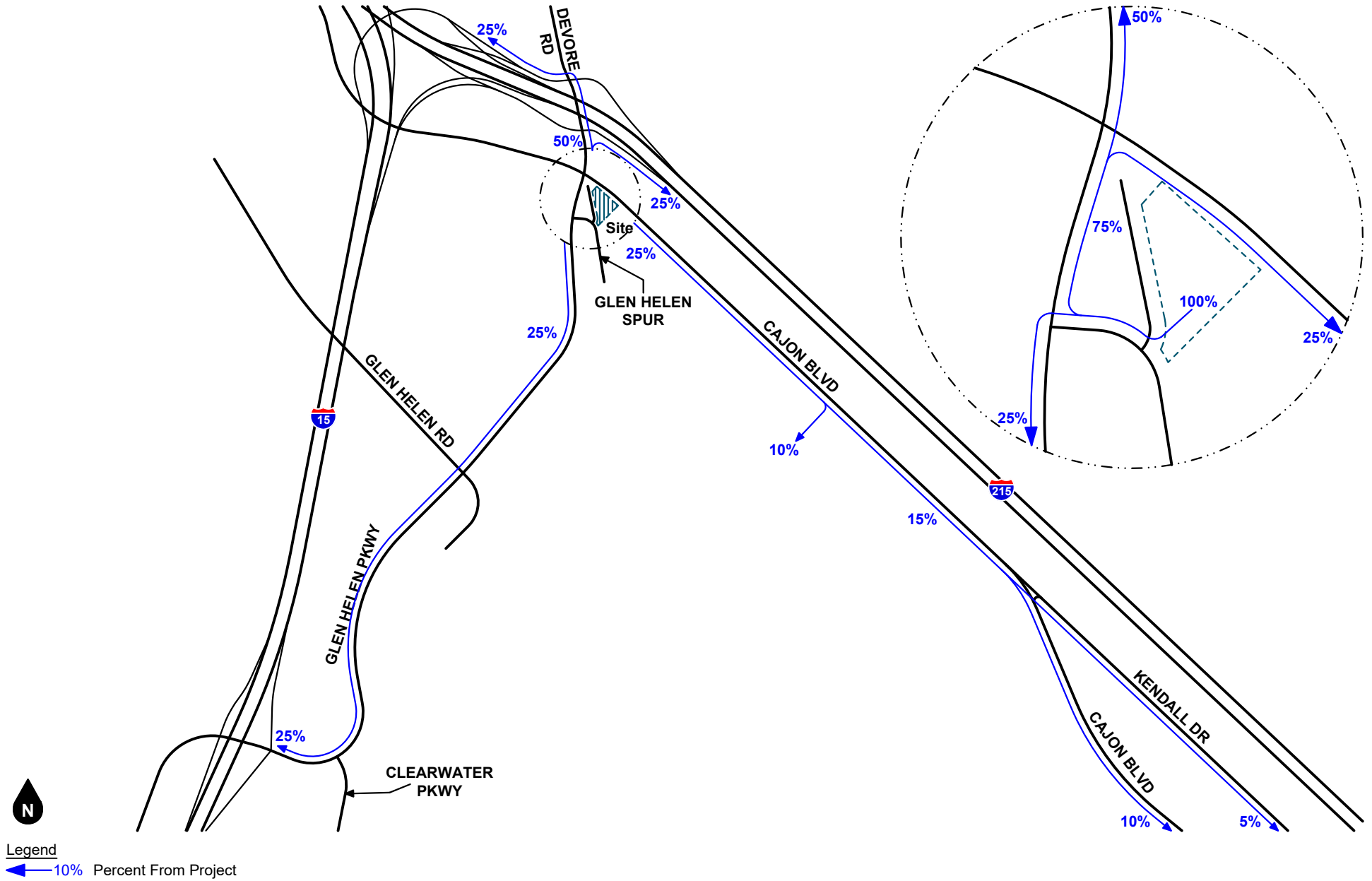
Trips Generated									
Land Use	Source	Quantity	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Fast-Food Restaurant with Drive-Through Window	ITE 934	1,057 TSF	24	23	47	18	17	35	494
Internal Capture Trips	ITE ⁴		-12	-3	-15	-5	-7	-12	-40
Pass-by Trips (50% AM, 55% PM, 26% Daily)	ITE 934 ⁵		-6	-10	-16	-7	-6	-13	-128
Subtotal			6	10	16	6	4	10	326
Convenience Store (1,848 TSF, 12 VFP)									
Convenience Store Gas Station (2-4 ksf GFA)	ITE 945	12 VFP	96	97	193	111	110	221	3,181
Convenience Store Gas Station (9-15 VFP)	ITE 945	1,848 TSF	52	52	104	50	51	101	1,294
Convenience Store Gas Station Average ⁶	ITE 945		74	75	149	81	80	161	2,238
Internal Capture Trips	ITE ⁴		-2	-8	-10	-4	-3	-7	-22
Pass-by Trips (76% AM, 75% PM, 37% Daily)	ITE 945 ⁵		-55	-51	-106	-58	-58	-116	-828
Subtotal			17	16	33	19	19	38	1,388
Truck Stop	ITE 950	6 VFP	41	43	84	49	44	93	1,344
Internal Capture Trips	ITE ⁴		-1	-4	-5	-2	-2	-4	-13
Subtotal			40	39	79	47	42	89	1,331
Subtotal Project Trips			139	141	280	148	141	289	4,076
Total Internal Capture Trips (11% AM, 8% PM)			-15	-15	-30	-11	-12	-23	-75
Subtotal - External Project Trips			124	126	250	137	129	266	4,001
Total Pass-by Trips			-61	-61	-122	-65	-64	-129	-956
TOTAL VEHICLE TRIPS GENERATED		2,905 TSF	63	65	128	72	65	137	3,045
Total light-duty vehicle trips			23	26	49	25	23	48	1,714
Total truck trips ⁷			40	39	79	47	42	89	1,331
2-axle	40.82%	1.5 PCE	24	24	48	29	25	54	815
3-axle	6.89%	2 PCE	6	5	11	6	6	12	183
4+-axle	52.28%	3 PCE	63	61	124	74	66	140	2,088
Truck Passenger Car Equivalent (PCE) ⁸ Trips			93	90	183	109	97	206	3,086
TOTAL PCE TRIPS GENERATED			116	116	232	134	120	254	4,800

Notes:

1. ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = Land Use Code.
All rates based on General Urban/Suburban setting.
2. TSF = Thousand Square Feet; VFP = Vehicle Fuel Position; PCE = passenger car equivalent.
3. ITE rates supplemented with data from San Diego Association of Governments (SANDAG) *Vehicular Traffic Generation Rates* (April 2002). Where the daily or peak hour rate is not provided by ITE, the SANDAG percentage of peak hour to daily rate is used to calculate the missing data. Where the peak hour distribution is not provided by ITE, the SANDAG peak hour distribution is used.
4. Internal capture rates calculated in accordance with procedures in the ITE *Trip Generation Manual* (3rd Edition, 2017). The daily internal capture rate is equal to half of the AM and PM peak hour average internal rates. See Attachment A for internal capture
5. Pass-by rates calculated in accordance with procedures in the ITE *Trip Generation Handbook* (11th Edition, 2021). Daily pass-by is calculated using half of the AM and PM pass-by average rates for the daily rate.
6. ITE provides two sets of trip rates that can be used to estimate trip generation for the proposed Convenience Store Gas Station land use: 1) trips per vehicle fueling position for convenience stores based on thousand square feet, and 2) trips per thousand square feet of convenience store based on vehicle fueling positions. Since the project trip estimate varies by more than 25% depending on which rates are used, an average of both estimates was used to provide a reasonable forecast for this analysis.
7. Truck trips base on the ITE 950 (Truck Stop) subtotal and truck percentages obtained from Caltrans for I-215 near the site.
8. PCE factors are based on the County of San Bernardino Congestion Management Program (2016), Appendix B.







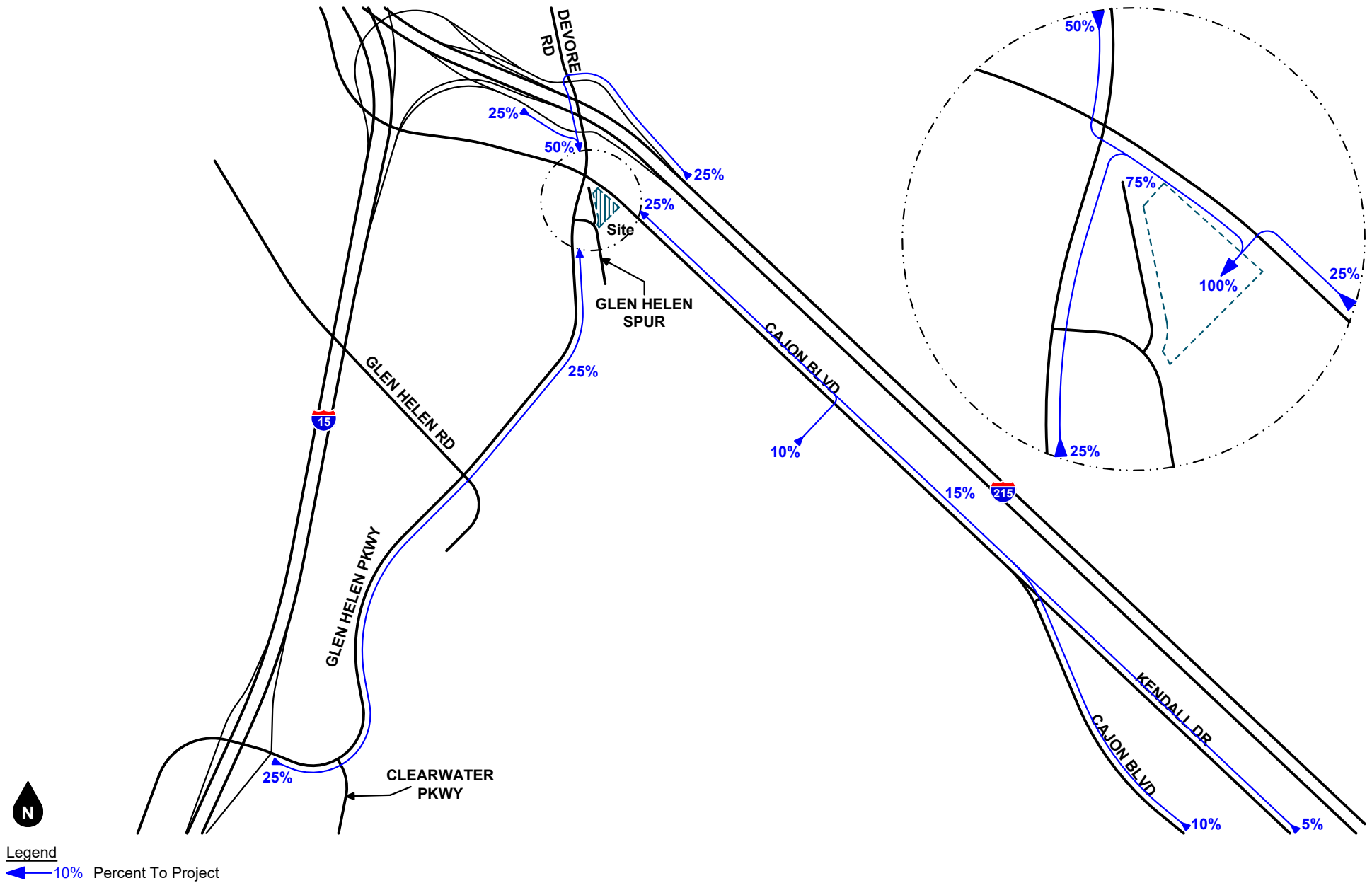


Figure 18
Project Trip Distriution (Inbound) - Trucks

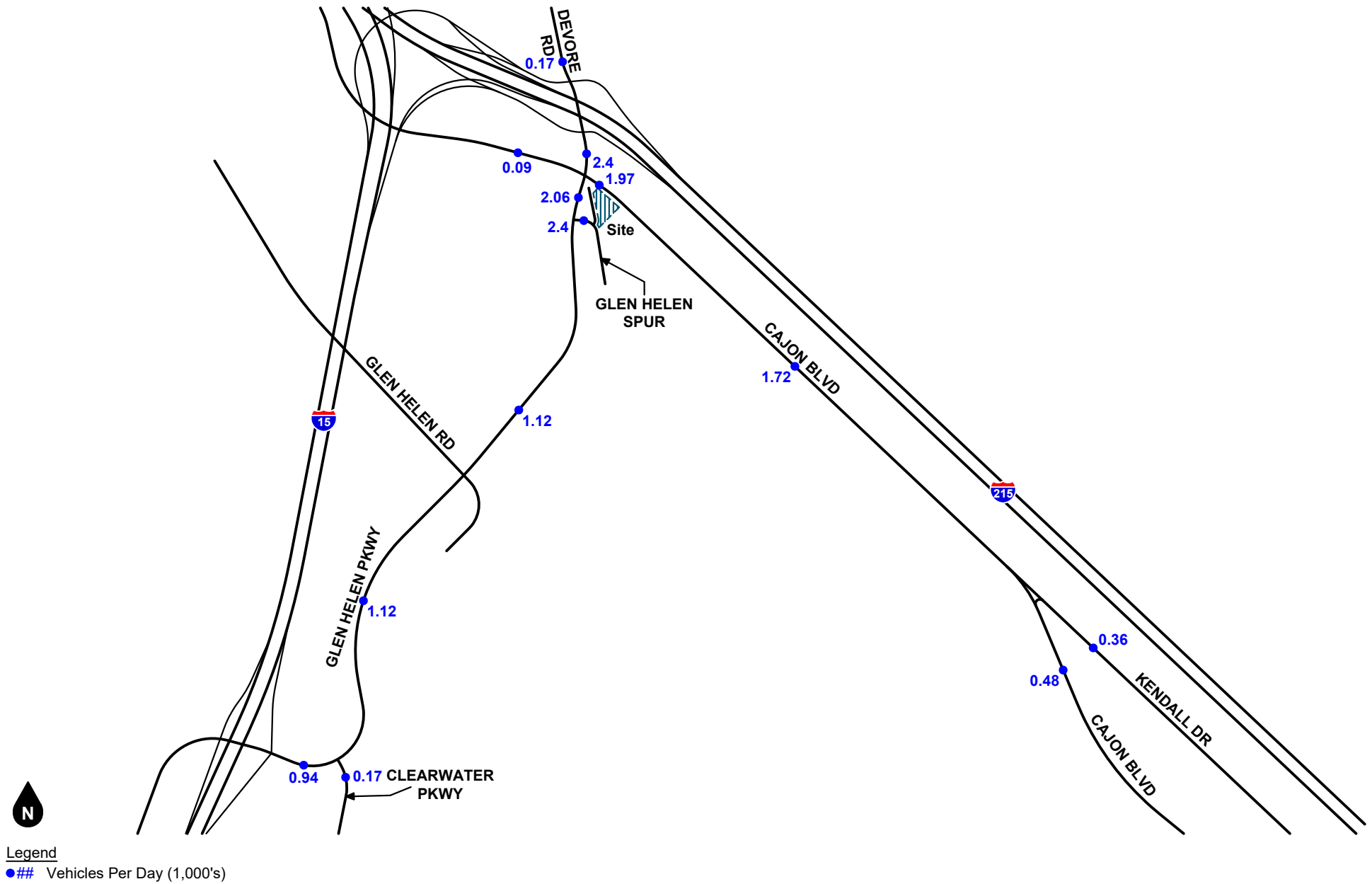


Figure 19
Project Average Daily Traffic Volumes

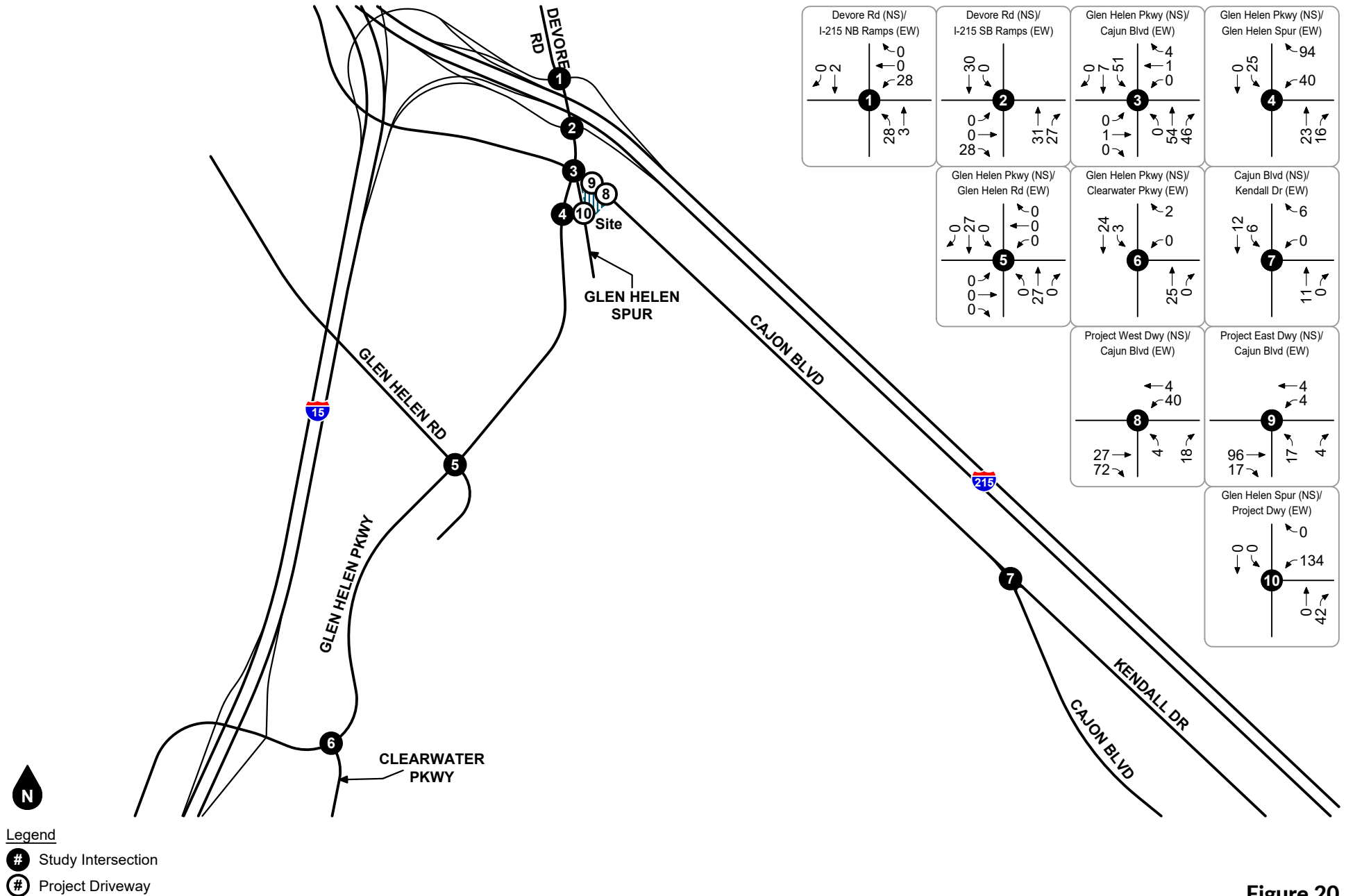


Figure 20
Project AM Peak Hour Intersection Turning Movement Volumes

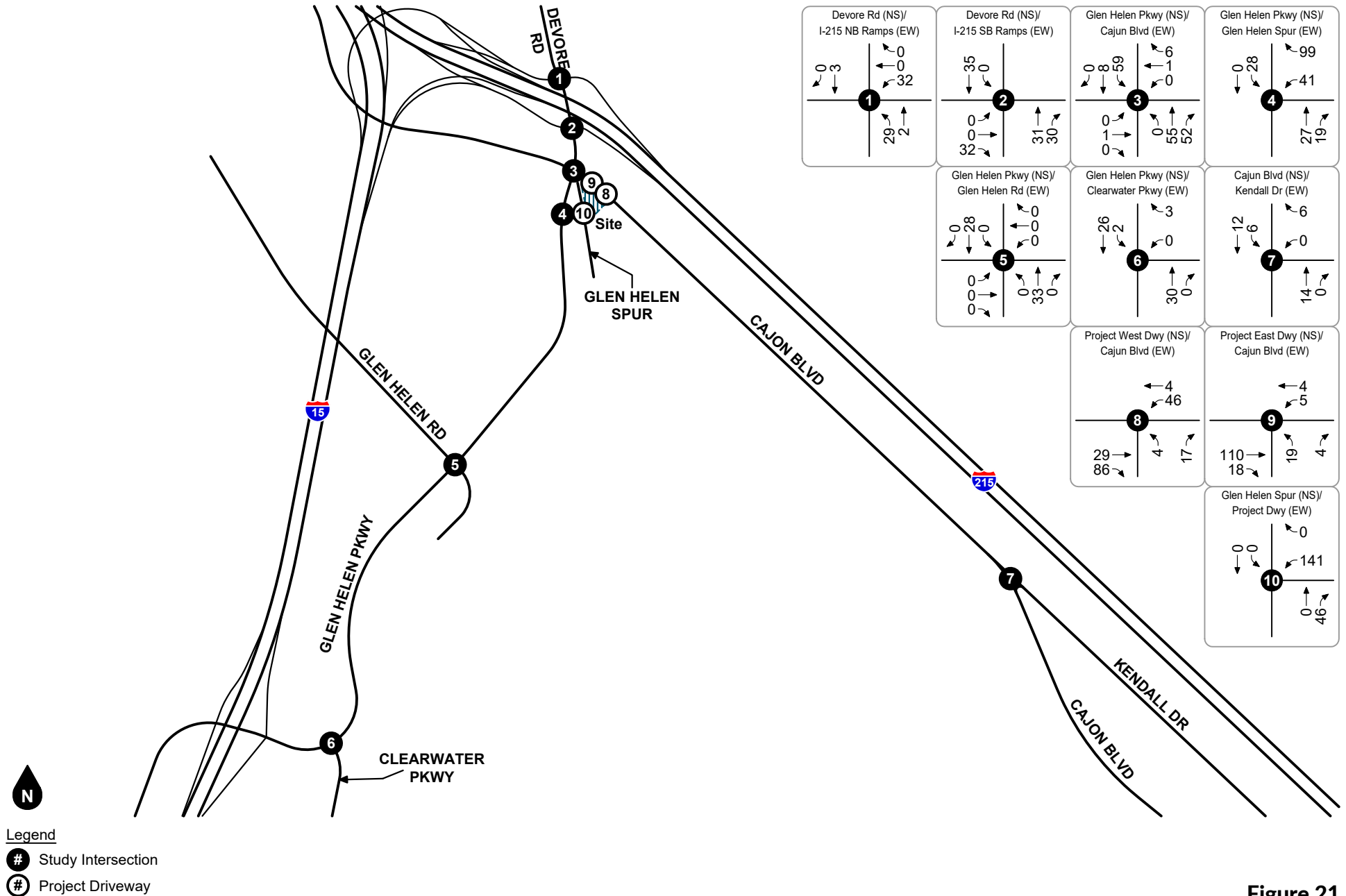


Figure 21
Project PM Peak Hour Intersection Turning Movement Volumes

5. FUTURE VOLUME FORECASTS

This section describes how future volume forecasts for each analysis scenario were developed. Forecast study area volumes are illustrated in the figures contained in this section.

METHOD OF PROJECTION

To assess future conditions, existing volumes were combined with project trips, ambient growth, and other development trips. The project completion year for analysis purposes in this report is 2025.

Ambient Growth

To account for ambient growth, Opening Year (2025) roadway volumes were developed by increasing existing (year 2023) volumes by a growth rate of two percent (2.0%) per year over a two (2) year period for a total growth factor of 1.04. The ambient growth was applied to all movements at the study intersections.

Other Developments

To account for growth associated with other development projects, trips generated by other pending or approved but unconstructed developments in the County of San Bernardino were reviewed and added to the study area as appropriate. The other development trip generation summary is shown in Table 3. The regional ambient growth is assumed to account for any additional trips generated by other developments not specifically listed in Table 3. Figure 22 shows the other development location map.

Average daily traffic volumes generated by other developments are shown in Figure 23. Figure 24 and Figure 25 show the forecast AM peak hour and PM peak hour intersection turning movement volumes for trips generated by other developments.

Regional Travel Demand Model Growth

Year 2040 AM and PM peak hour intersection turning movement volumes were determined using the San Bernardino County Transportation Analysis Model (SBTAM) Year 2040 travel demand model plots and forecasting procedures outlined in the National Cooperative Highway Research Program Report 255.

To derive AM and PM peak hour intersection turning movement volumes, the traffic volume growth forecasts were further refined using a spreadsheet program developed by the Federal Highway Administration and consistent with traffic volume forecasting procedures outlined in the National Cooperative Highway Research Program Report 255. The spreadsheet program uses a linear programming algorithm to calculate future turning movements based on the relationship of existing intersection turning movements and forecast model growth. The forecast turning movements developed by the spreadsheet program were reviewed for reasonableness and adjusted as necessary to ensure growth over near-term forecasts. The end results of the post-processing procedures are future intersection turning movement volumes suitable for analysis. Travel demand model post-processing worksheets are provided in Appendix E.

ANALYSIS SCENARIO VOLUMES

Existing Plus Project

The Existing Plus Project volume forecast was developed by adding project-generated trips to the Existing volumes. Existing Plus Project average daily traffic volumes are shown in Figure 26. Existing Plus Project AM peak hour and PM peak hour intersection turning movement volumes are shown in Figure 27 and Figure 28.

Opening Year (2025) Without Project

The Opening Year (2025) Without Project volume forecast was developed by applying the ambient growth factor to existing volumes and adding trips generated by other developments. Opening Year (2025) Without Project average daily traffic volumes are shown in Figure 29. Opening Year (2025) Without Project AM peak hour and PM peak hour intersection turning movement volumes are shown in Figure 30 and Figure 31.

Opening Year (2025) With Project

The Opening Year (2025) With Project volume forecast was developed by adding project-generated trips to the Opening Year (2025) Without Project volumes. Opening Year (2025) With Project average daily traffic volumes are shown in Figure 32. Opening Year (2025) With Project AM peak hour and PM peak hour intersection turning movement volumes are shown in Figure 33 and Figure 34.

Year 2040 Without Project

The Year 2040 Without Project volume forecast was developed based on the regional travel demand model growth as described above. Year 2040 Without Project average daily traffic volumes are shown in Figure 35. Year 2040 Without Project AM peak hour and PM peak hour intersection turning movement volumes are shown in Figure 36 and Figure 37.

Year 2040 With Project

The Year 2040 With Project volume forecast was developed by adding project-generated trips to the Year 2040 Without Project volumes. Year 2040 With Project average daily traffic volumes are shown in Figure 38. Year 2040 With Project AM peak hour and PM peak hour intersection turning movement volumes are shown in Figure 39 and Figure 40.

Table 3 [1/2]
Other Development Trip Generation

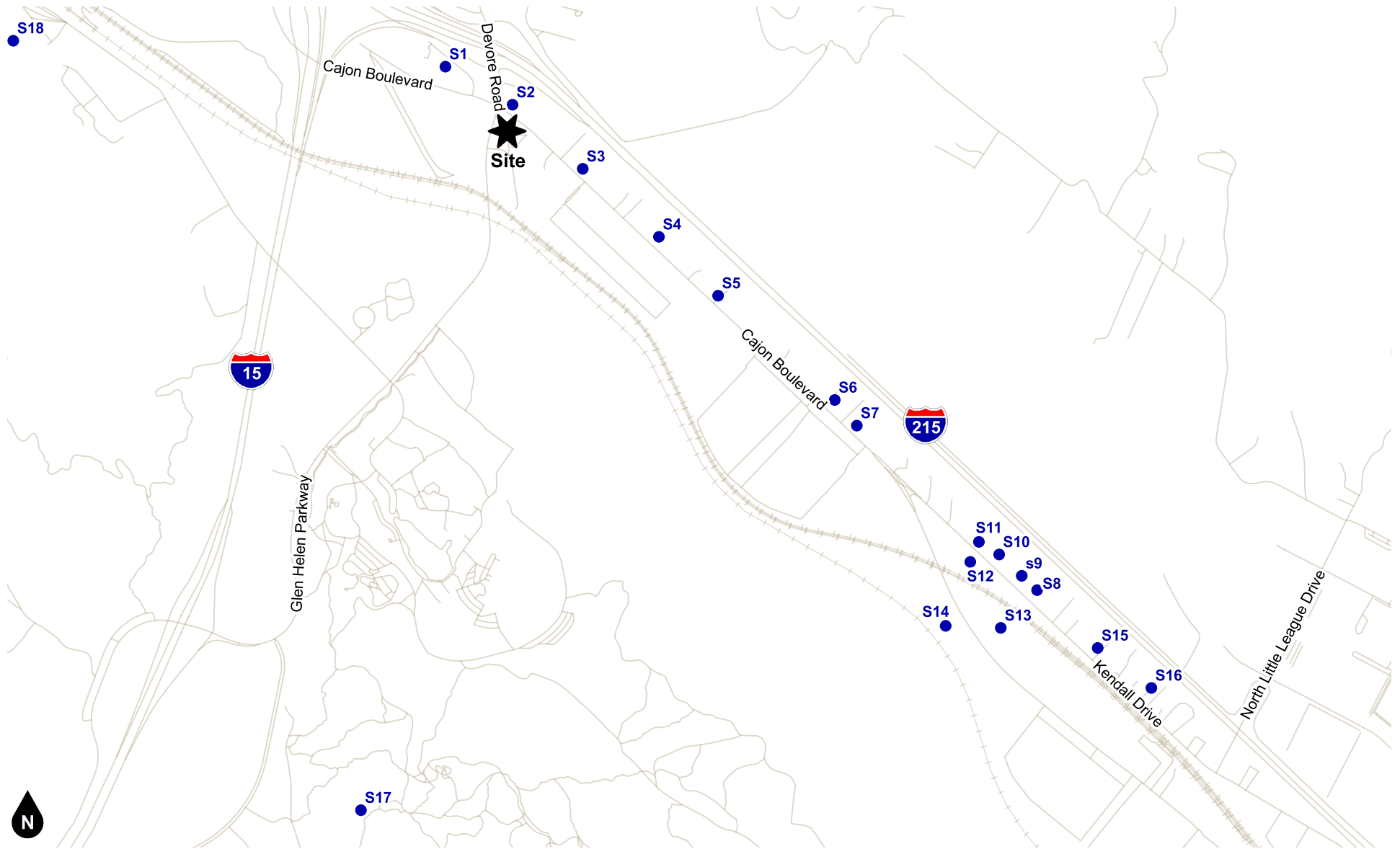
Trips Generated											
ID	Name/ Address	Land Use	Source	Quantity	AM Peak Hour			PM Peak Hour			Daily
					In	Out	Total	In	Out	Total	
S1	PROJ-2019-00015	Fast Casual Restaurant	ITE 930	5,473 TSF	4	4	8	38	31	69	532
S2	PROJ-2021-00148	Convenience Store Gas Station	ITE 945	3,800 TSF	107	108	215	104	103	207	2,662
		Internal Capture Trips			-6	-14	-20	-14	-10	-24	-67
		Pass-by Trips (60% AM, 56% PM, 58% Daily)			-61	-56	-117	-50	-52	-102	-1,544
		Fast-Food Restaurant with Drive-Through Window	ITE 934	2,000 TSF	46	43	89	34	32	66	935
		Internal Capture Trips			-14	-6	-20	-10	-13	-23	-65
		Pass-by Trips (50% AM, 55% PM, 52.5% Daily)			-16	-19	-35	-13	-11	-24	-491
		Subtotal			56	56	112	51	49	100	1,430
S3	PROJ-2020-00064	Equipment Yard/ Parking Lot	TRK ³	4/25 PRK	1	1	2	2	1	3	40
		Subtotal PCE			3	4	7	5	3	8	88
S4	PROJ-2020-00012	Truck Terminal / Parking Lot	TRK ³	2/30 PRK	1	1	2	2	1	3	43
		Subtotal PCE			3	4	7	6	3	9	100
S5	PROJ-2021-00005	Truck Terminal / Parking Lot	TRK ³	26/46 PRK	2	3	5	4	3	7	108
		Subtotal PCE			2	6	8	7	4	11	195
S6	PROJ-2020-00229	Manufacturing	ITE 140	21.187 TSF	11	4	15	5	11	16	100
		Subtotal PCE			11	5	16	6	11	17	114
S7	PROJ-2020-00195	Manufacturing	ITE 140	8,700 TSF	5	2	7	2	5	7	40
		Subtotal PCE			5	2	7	2	5	7	45
S8	PROJ-2020-00050	Truck Terminal / Parking Lot	TRK ³	10/26 PRK	1	2	3	3	1	4	52
		Subtotal PCE			1	5	6	6	1	7	102
S9	PROJ-2019-00002	Automobile Parts and Service Center	ITE 943	2,100 TSF	3	1	4	2	2	4	35
		Subtotal PCE			9	3	12	6	6	12	105
S10	PROJ-2020-00042	Truck Terminal / Parking Lot	TRK ³	2/38 PRK	1	2	3	3	1	4	53
		Subtotal PCE			4	4	8	6	3	9	125
S11	PROJ-2020-00232	Manufacturing	ITE 140	21,405 TSF	12	3	15	5	11	16	101
		Subtotal PCE			12	4	16	6	11	17	115
S12	PROJ-2021-00038	Truck Terminal / Parking Lot	TRK ³	4/207 PRK	5	8	13	13	5	18	278
		Subtotal PCE			11	21	32	30	12	42	673

**Table 3 [2/2]
Other Development Trip Generation**

Trips Generated											
ID	Name/ Address	Land Use	Source	Quantity	AM Peak Hour			PM Peak Hour			Daily
					In	Out	Total	In	Out	Total	
S13	PROJ-2021-00066	Warehousing	ITE 150	32,000 TSF	5	1	6	2	4	6	55
		Subtotal PCE			5	2	7	3	5	8	85
S14	PROJ-2022-00019	Truck Terminal / Parking Lot	TRK ³	4/211 PRK	5	8	13	13	5	18	283
		Subtotal PCE			11	21	32	30	12	42	686
S15	PROJ-2021-00001	Truck Terminal / Parking Lot	TRK ³	2/22 PRK	1	1	2	2	1	3	33
		Subtotal PCE			3	3	6	5	3	8	75
S16	PROJ-2021-00001	Truck Terminal / Parking Lot	TRK ³	25/39 PRK	2	3	5	4	3	7	97
		Subtotal PCE			2	6	8	7	4	11	172
S17	PROJ-2021-00148	Single-Family Detached Housing	ITE 210	175 DU	32	91	123	104	61	165	1,650
S18	PTUP-2022-00046	Truck Trailer Yard	TIA ⁷	13.55 AC	72	57	129	41	64	105	1,651

Notes:

1. ITE = *Institute of Transportation Engineers Trip Generation Manual (11th Edition, 2021)*; ### = Land Use Code.
All rates based on General Urban/Suburban setting.
2. PRK = Parking Spaces; TSF = Thousand Square Feet; DU = Dwelling Unit.
3. Internal capture rates calculated in accordance with procedures in the *ITE Trip Generation Handbook (3rd Edition, 2017)*. The daily internal capture rate is equal to half of the AM and PM peak hour average internal rates.
4. Pass-by rates calculated in accordance with ITE recommended practice and rates from the *Trip Generation Manual (11th Edition, 2021)*. Daily pass-by is calculated using half of the AM and PM pass-by average rates for the daily rate.
5. Truck terminal / parking lot trip generation rates derived from trip counts at a comparable facilities from *Foothill and Macy Trailer Parking Lot Project*, Ganddini Group, March 5, 2022.
6. PCE = passenger car equivalent. PCE factors are based on the County of San Bernardino *Congestion Management Program (2016)*, "Appendix B – Summary of Analysis Assumptions for the CMP Traffic Impact Analysis Guidelines".
7. Source: *Glen Helen Truck Trailer Yard Traffic Impact Analysis*, April 17, 2023 (Environmental Planning Development Solutions, Inc.).



Legend

- Other Development

Figure 22
Other Development Location Map

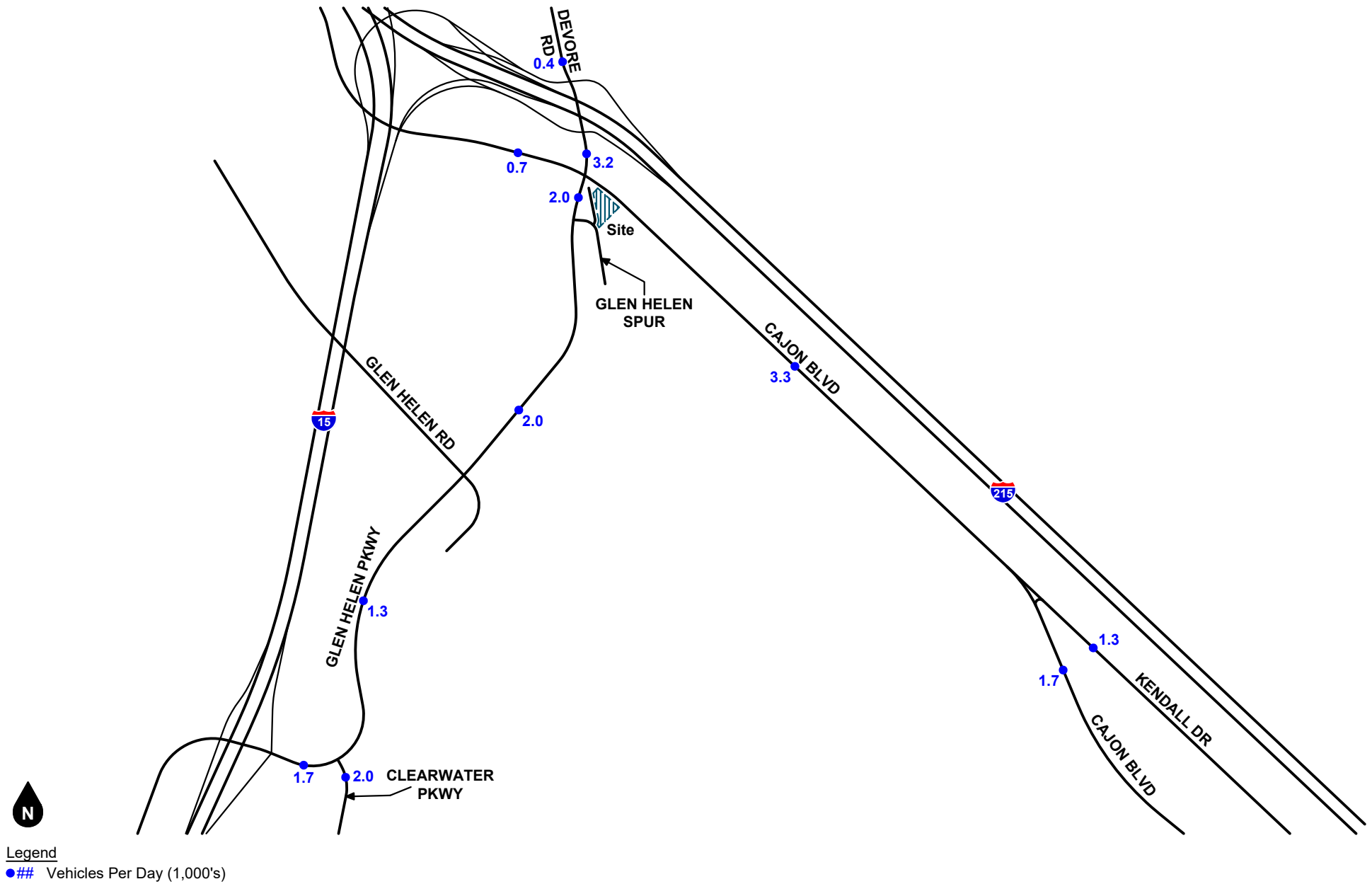


Figure 23
Other Development Average Daily Traffic Volumes

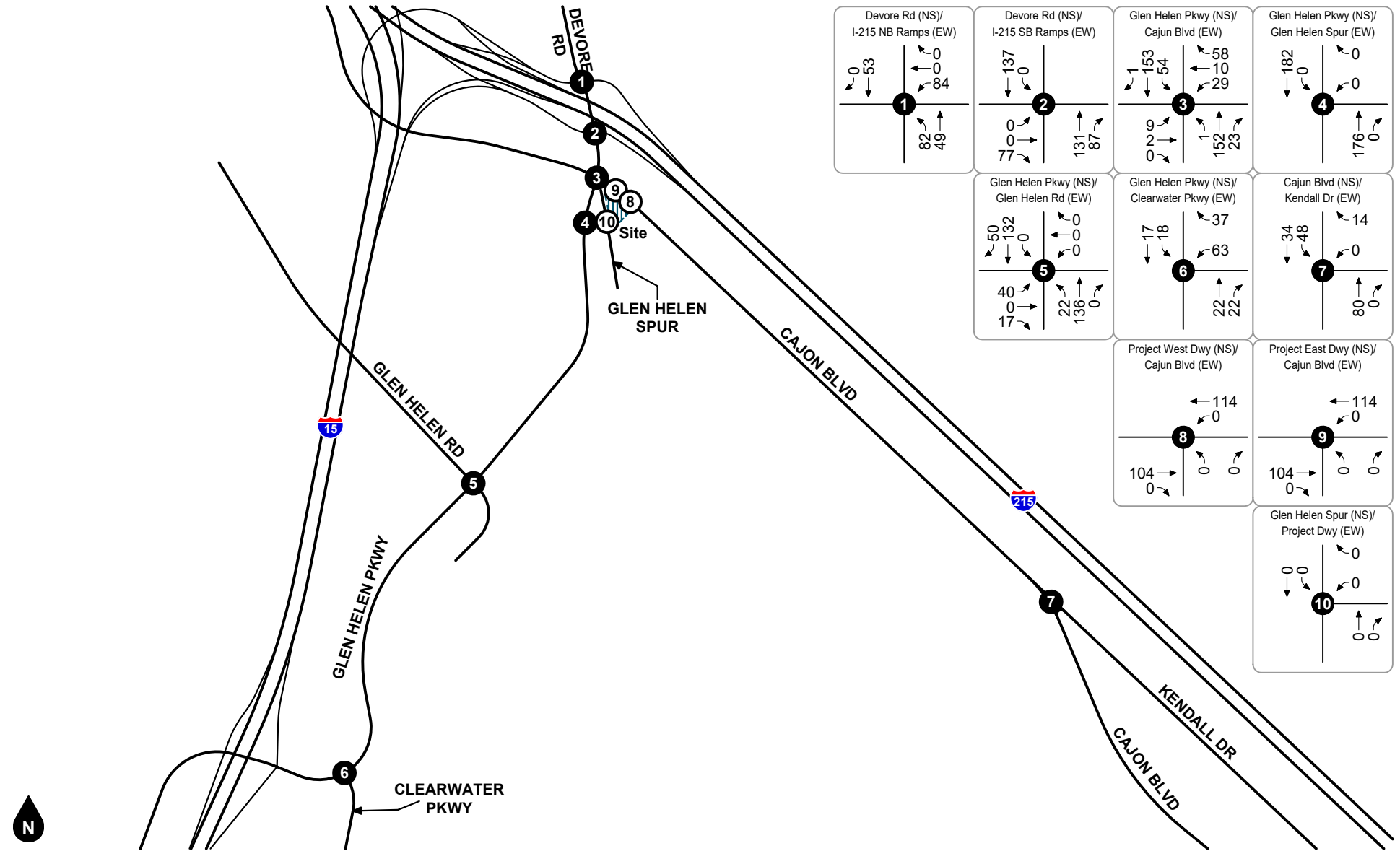


Figure 24
Other Development
AM Peak Hour Intersection Turning Movement Volumes

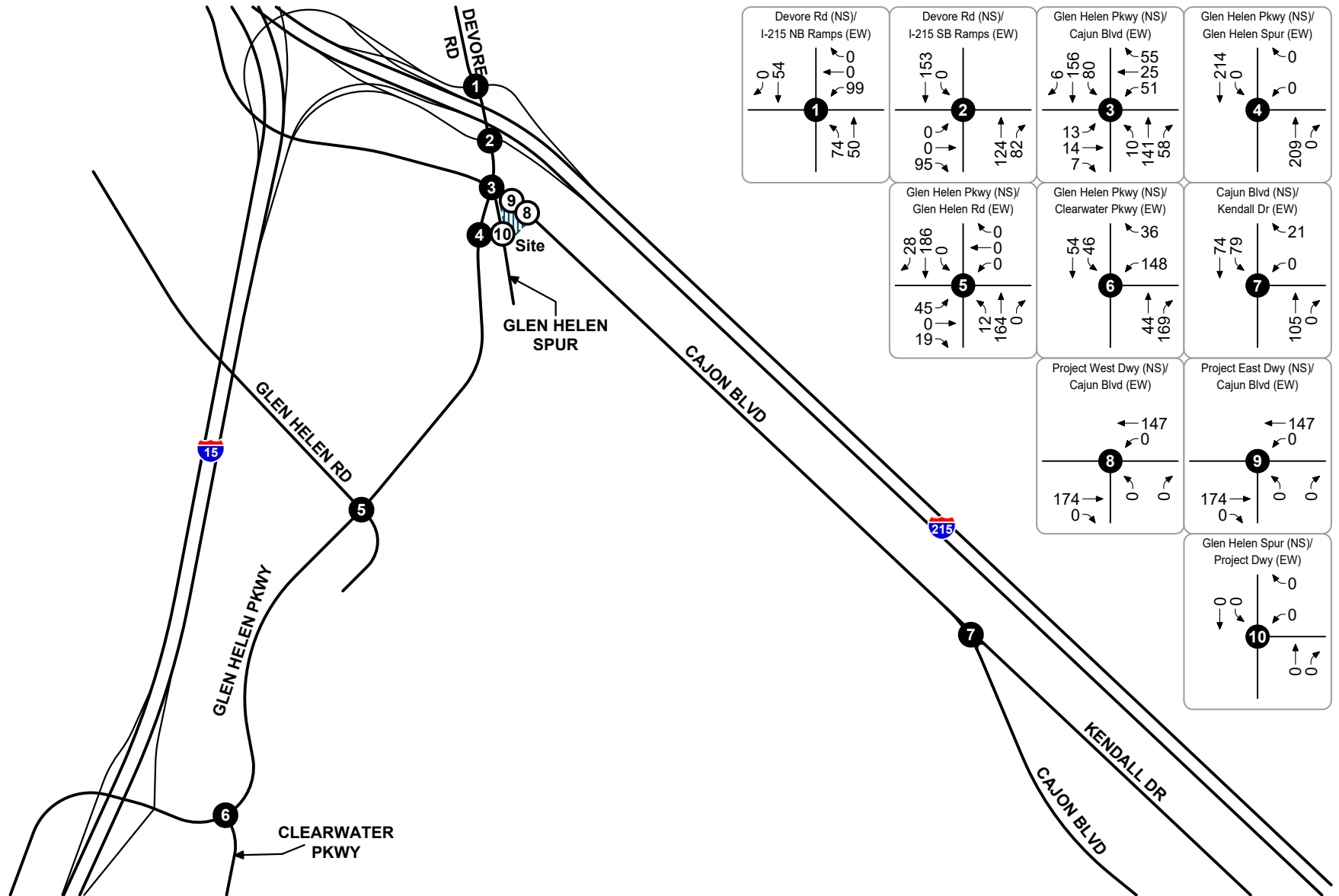


Figure 25
Other Development
PM Peak Hour Intersection Turning Movement Volumes

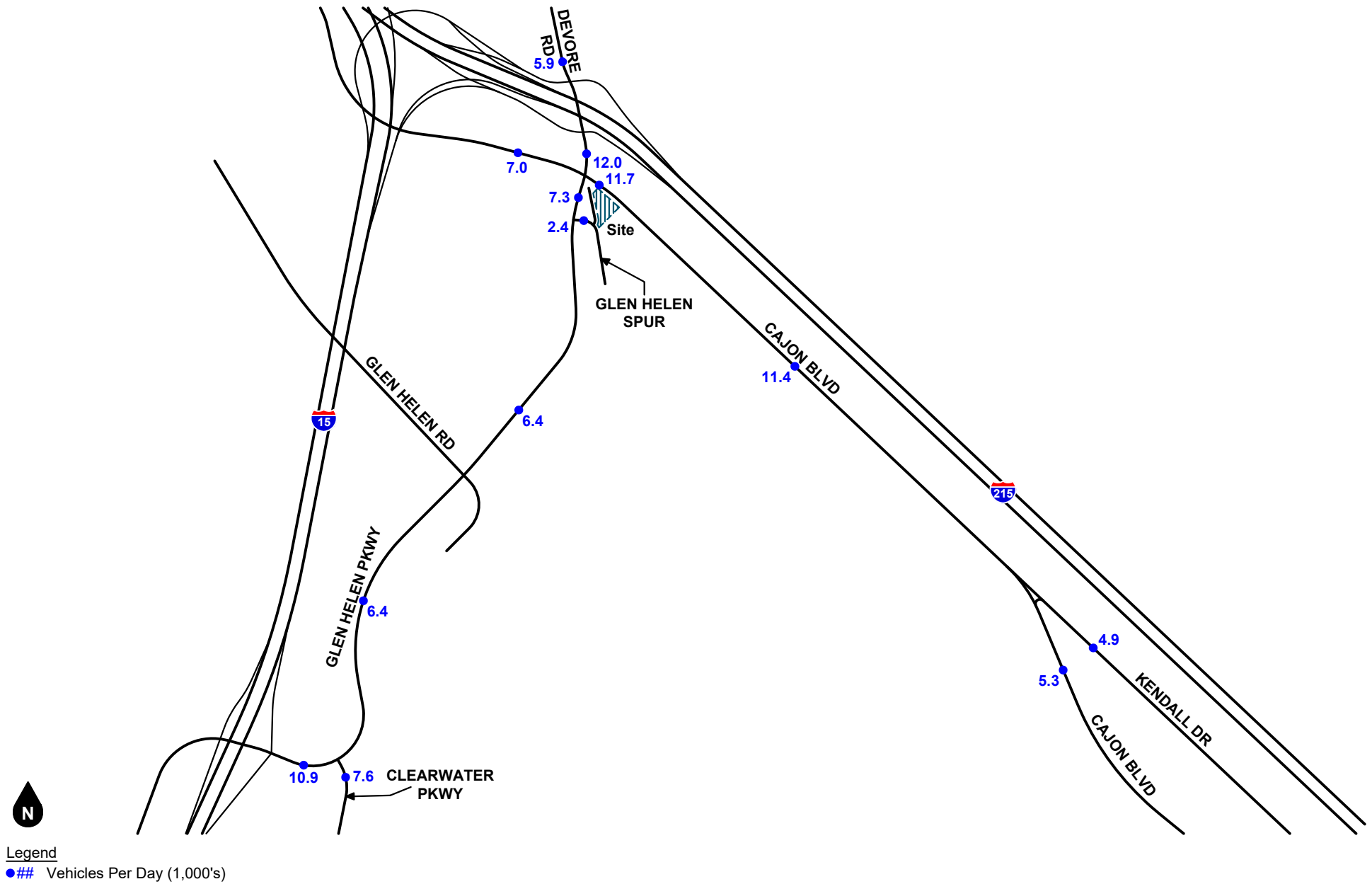


Figure 26
 Existing Plus Project Average Daily Traffic Volumes

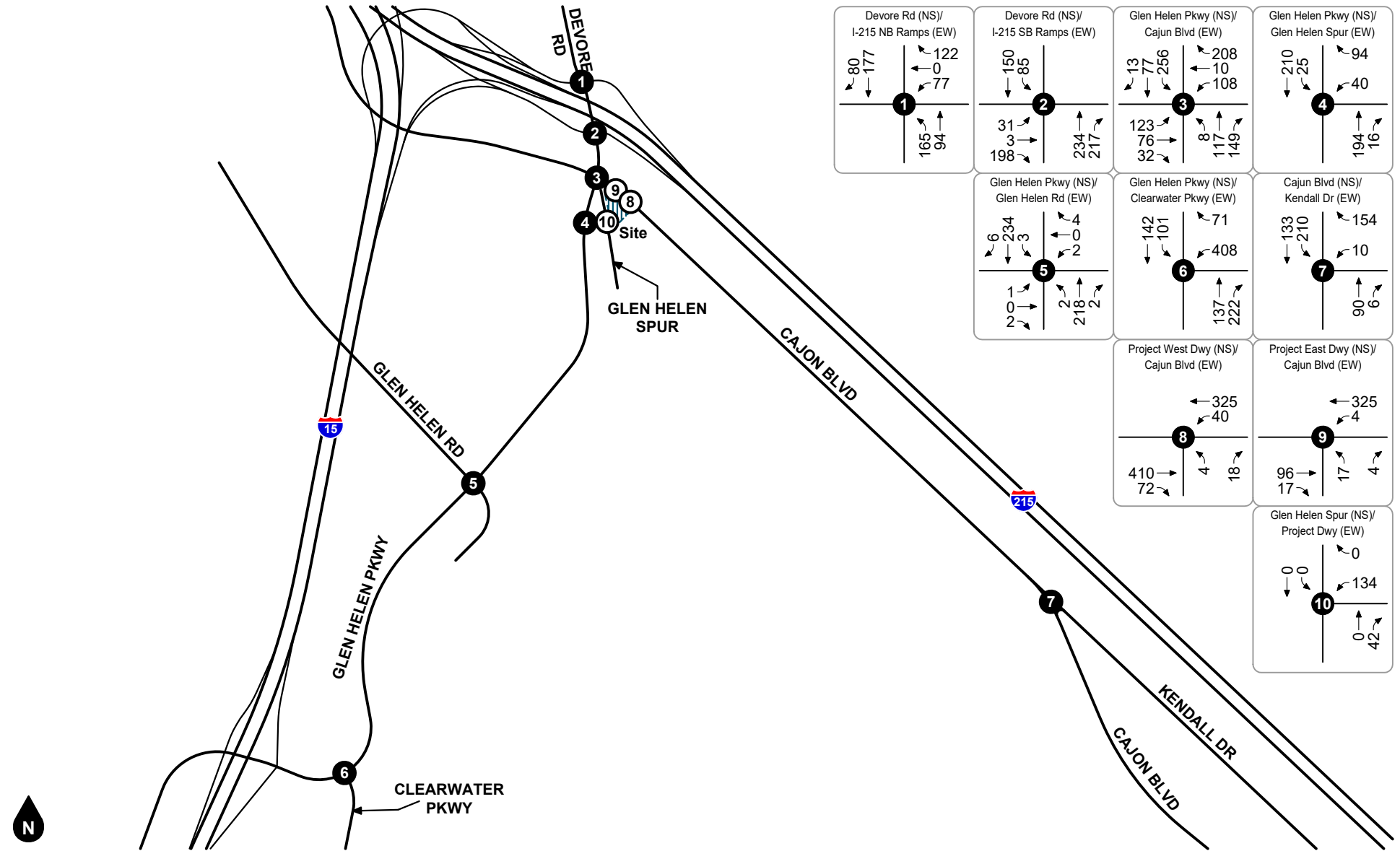


Figure 27
Existing Plus Project
AM Peak Hour Intersection Turning Movement Volumes

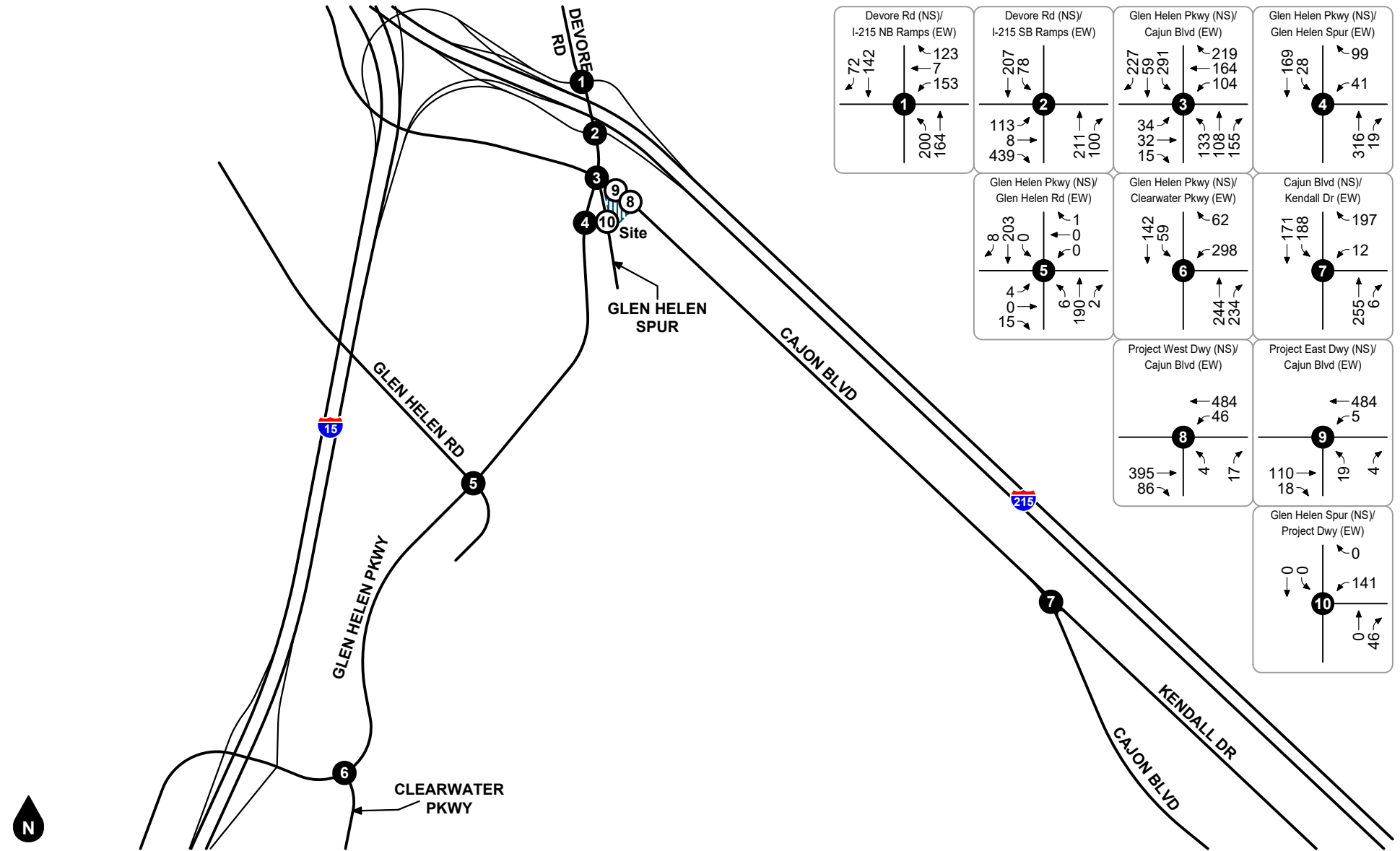


Figure 28
Existing Plus Project
PM Peak Hour Intersection Turning Movement Volumes

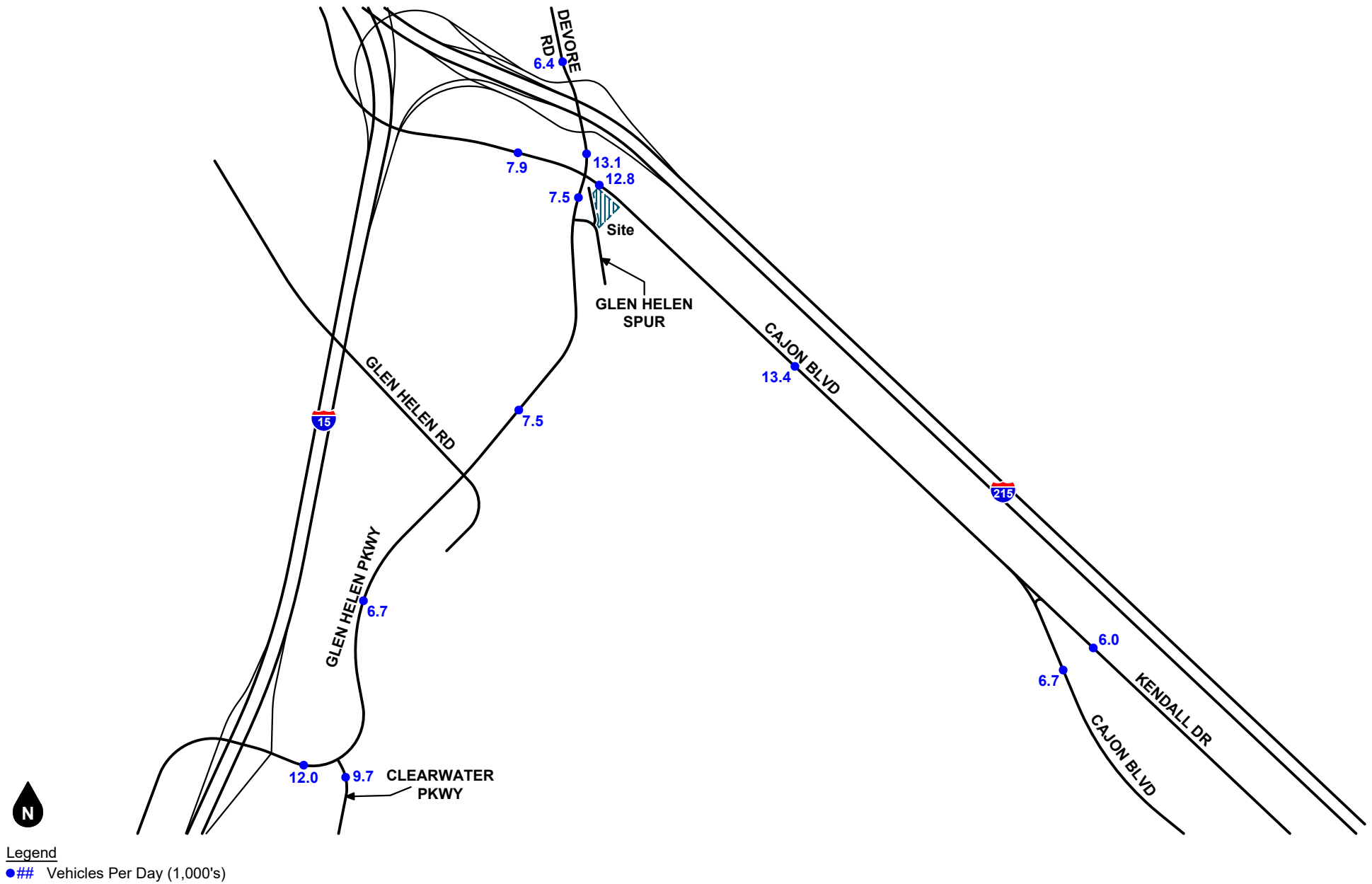


Figure 29
Opening Year (2025) Without Project Average Daily Traffic Volumes

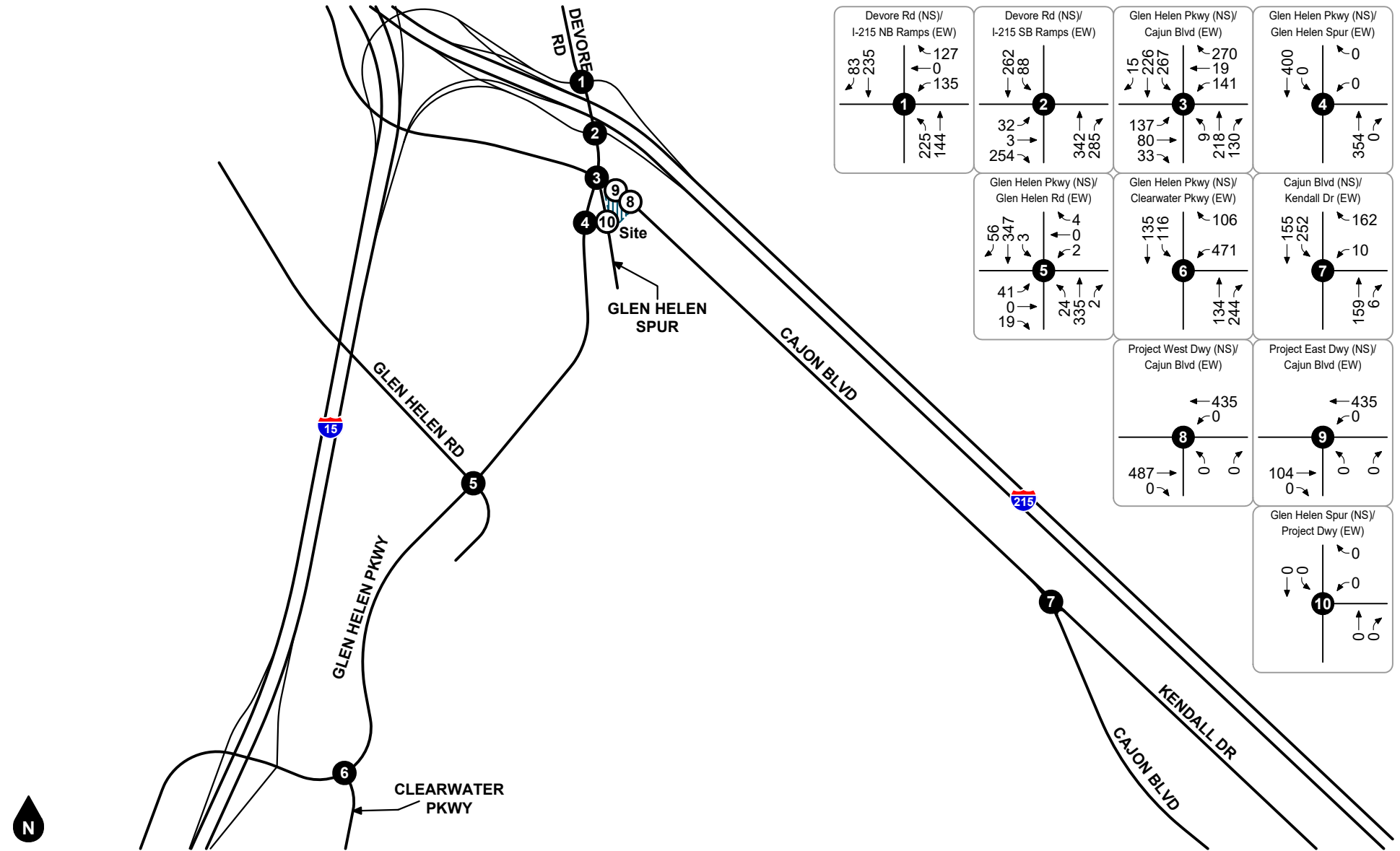


Figure 30
Opening Year (2025) Without Project
AM Peak Hour Intersection Turning Movement Volumes

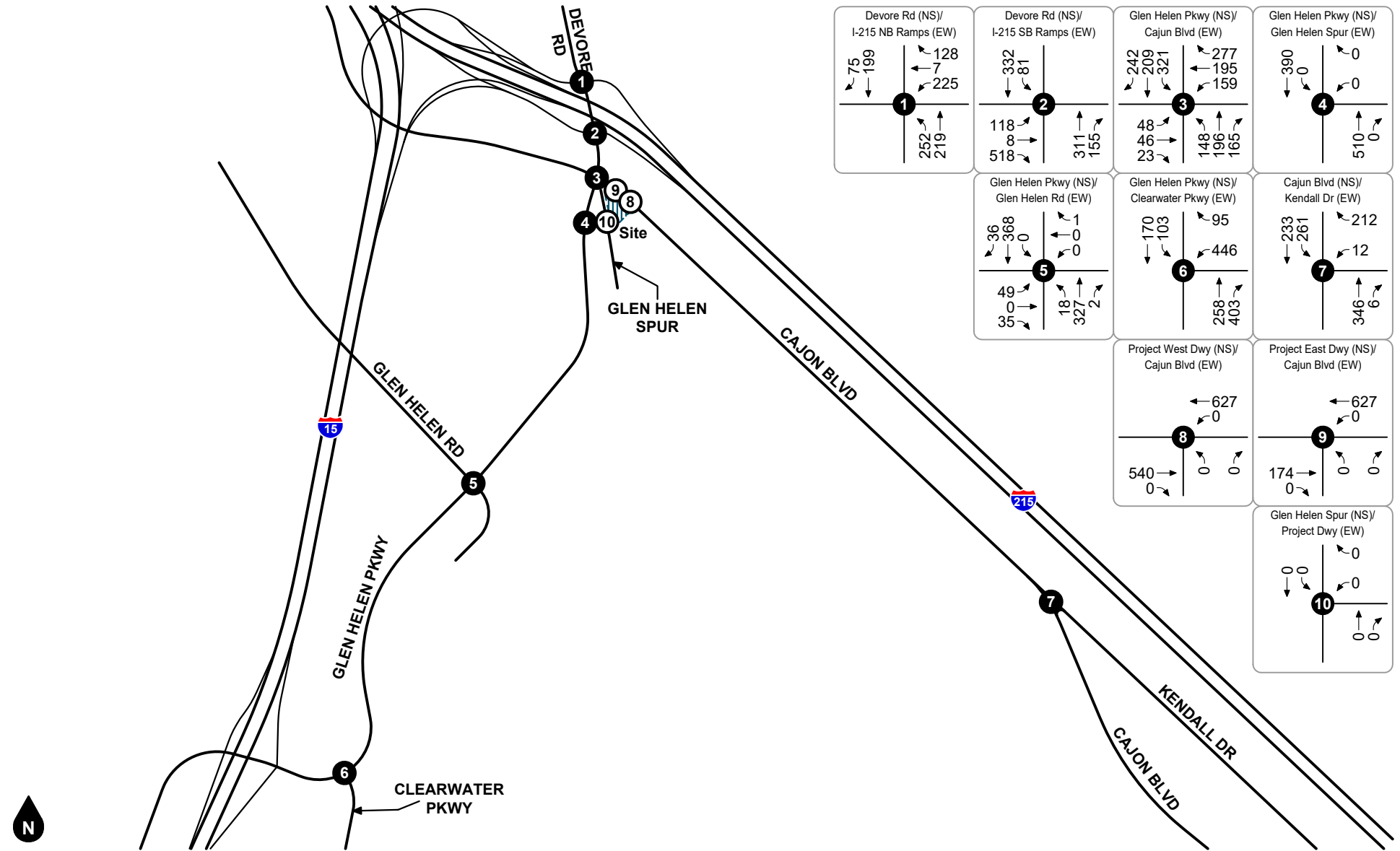


Figure 31
Opening Year (2025) Without Project
PM Peak Hour Intersection Turning Movement Volumes

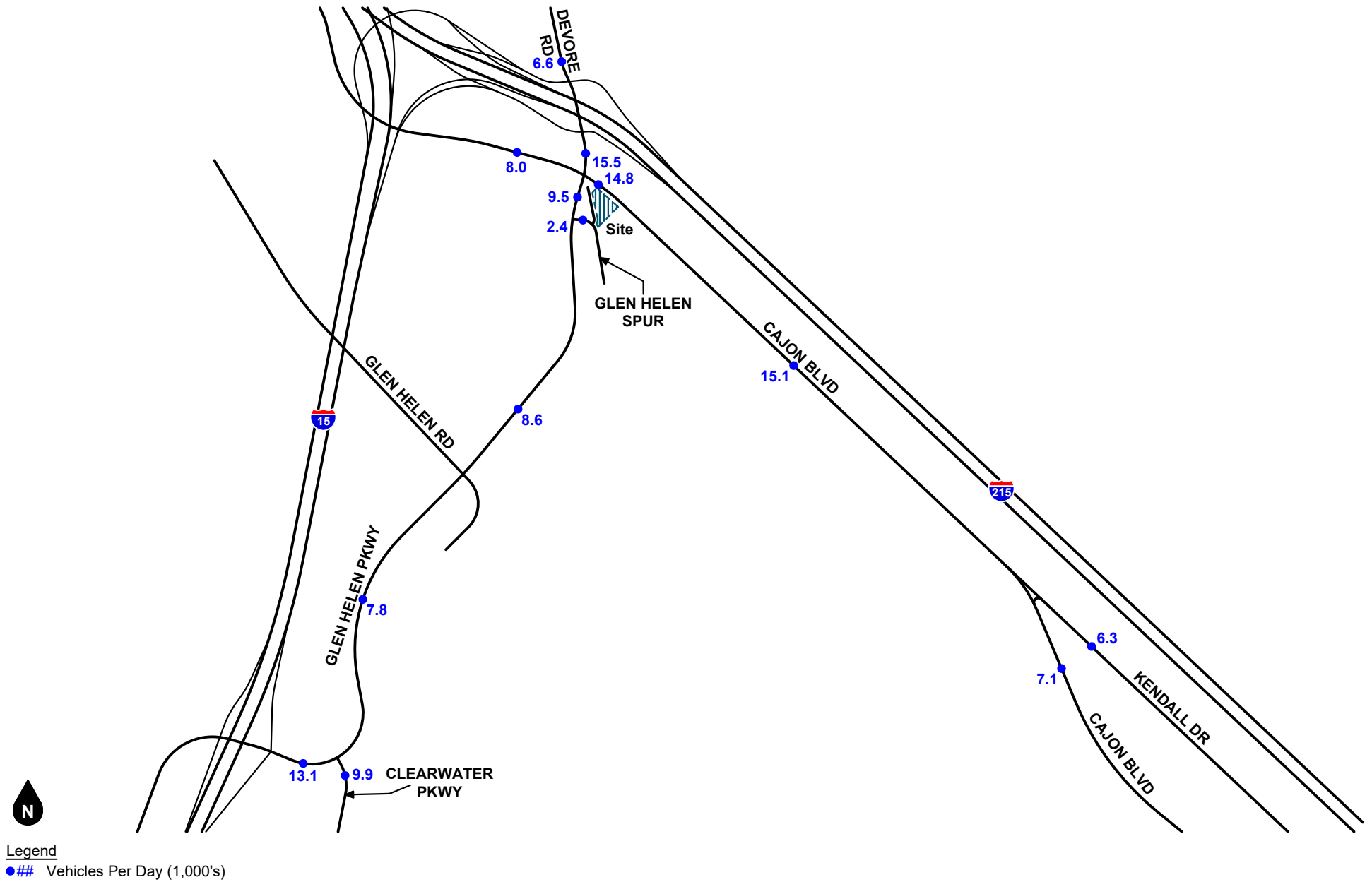


Figure 32
 Opening Year (2025) With Project Average Daily Traffic Volumes

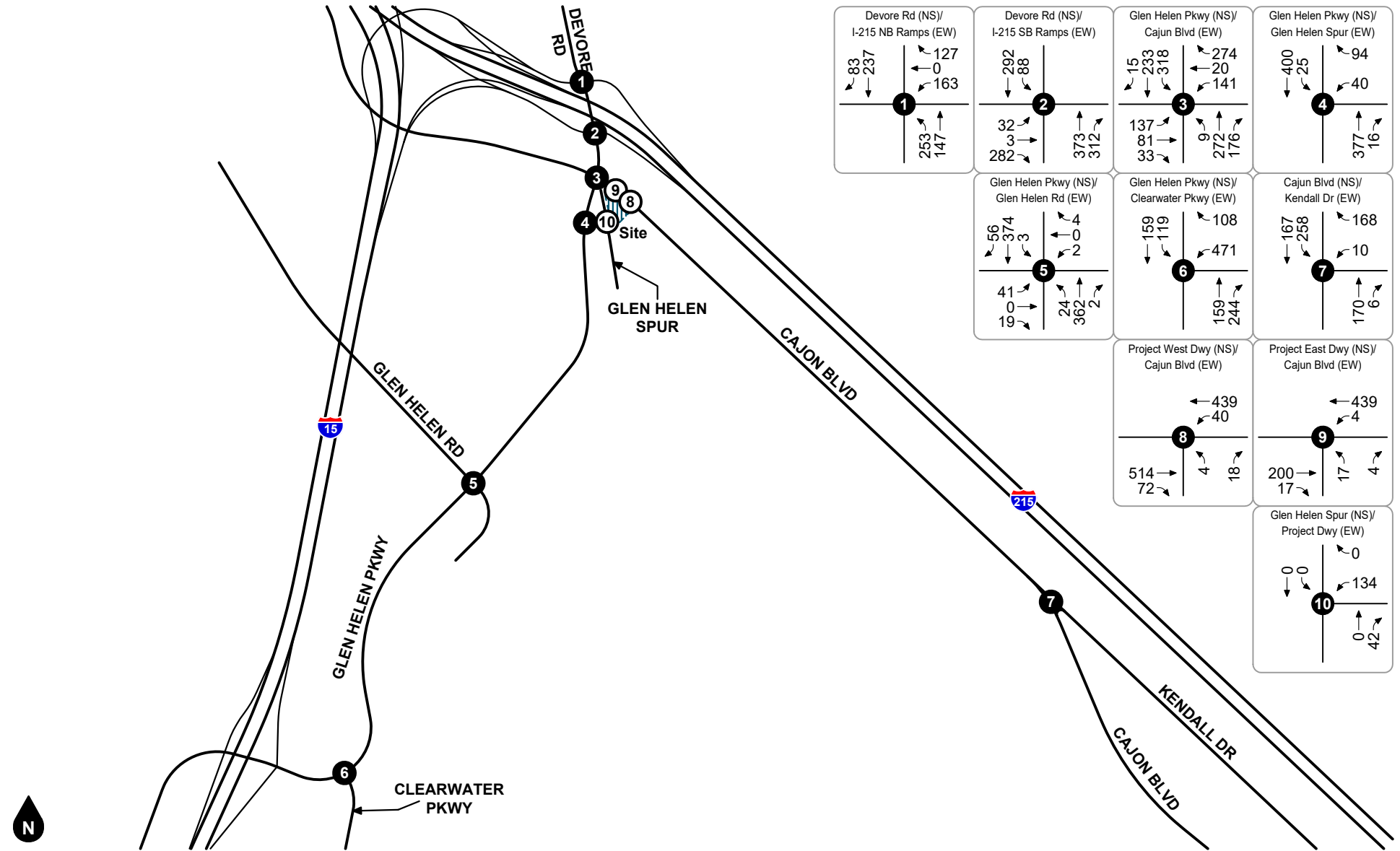


Figure 33
Opening Year (2025) With Project
AM Peak Hour Intersection Turning Movement Volumes

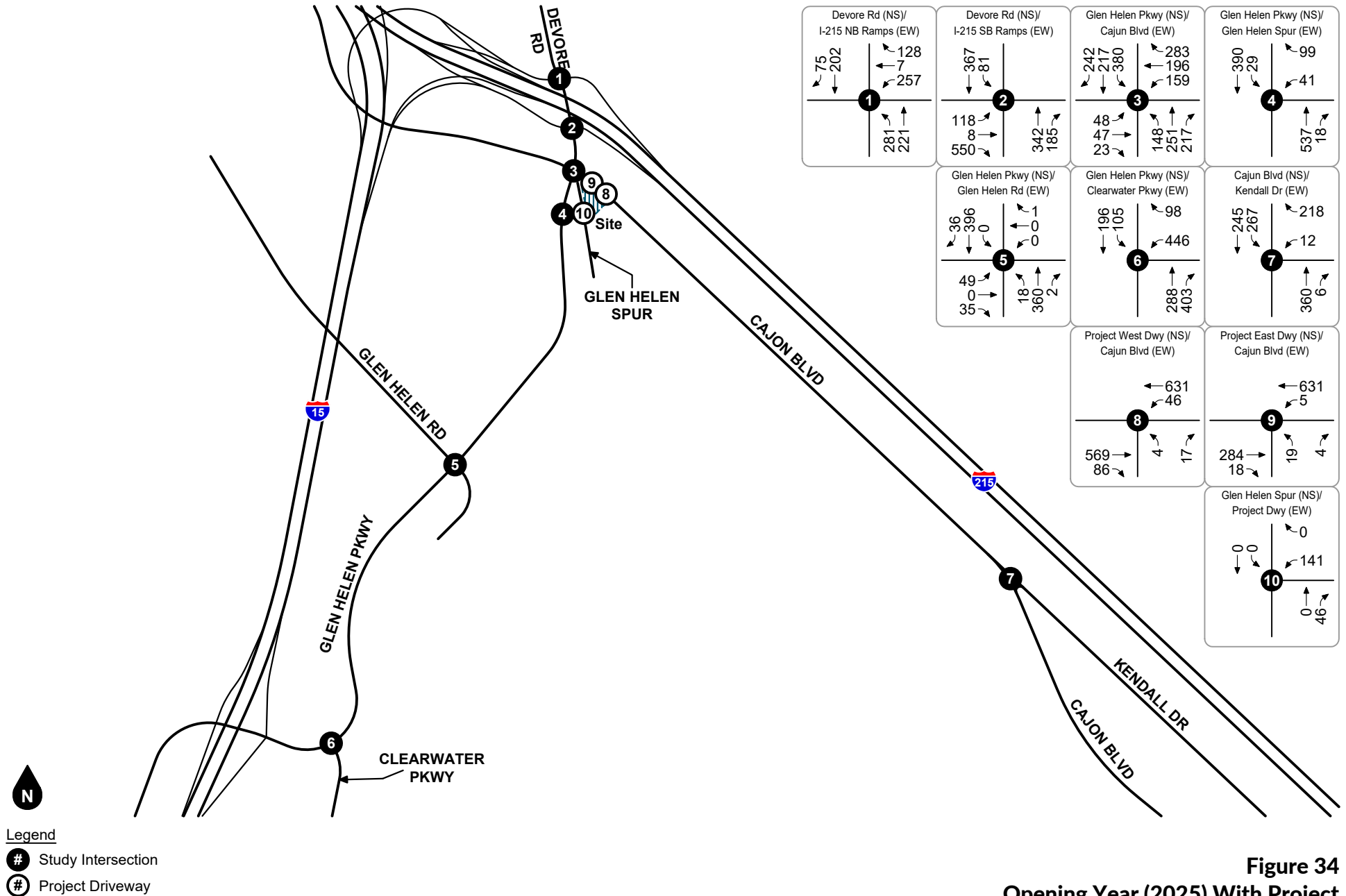


Figure 34
Opening Year (2025) With Project
PM Peak Hour Intersection Turning Movement Volumes

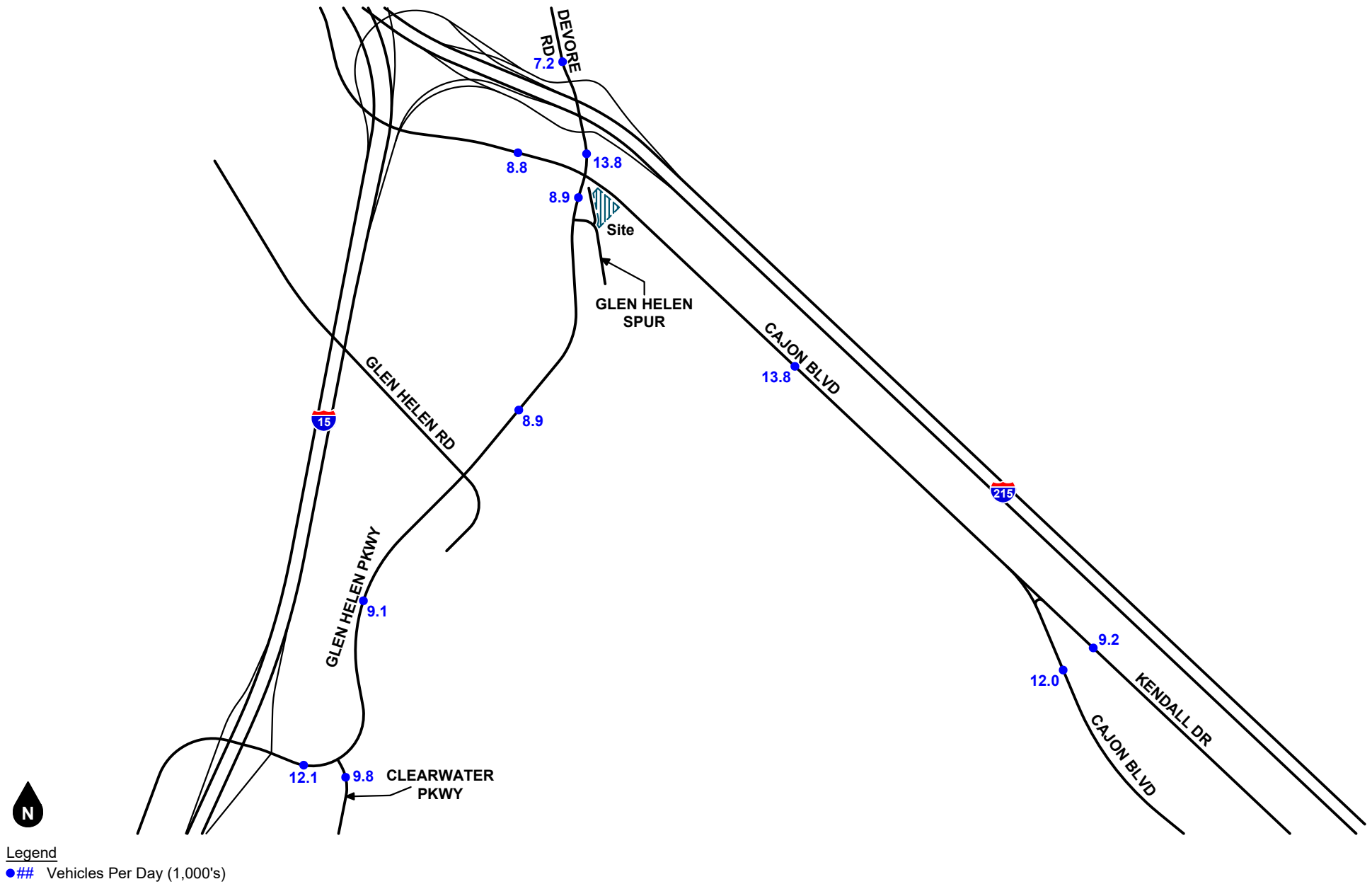


Figure 35
 Year 2040 Without Project Average Daily Traffic Volumes

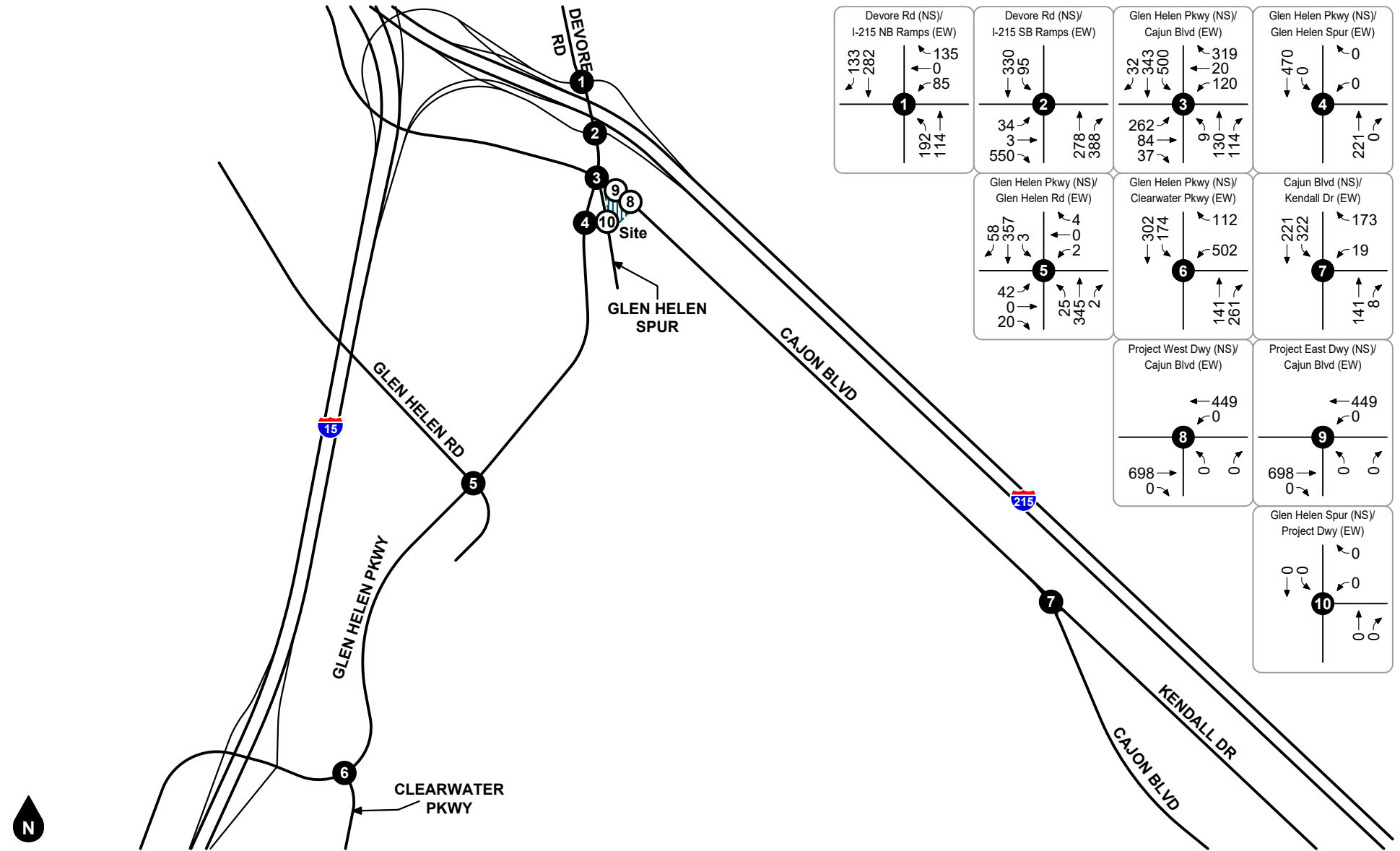


Figure 36
Year 2040 Without Project
AM Peak Hour Intersection Turning Movement Volumes

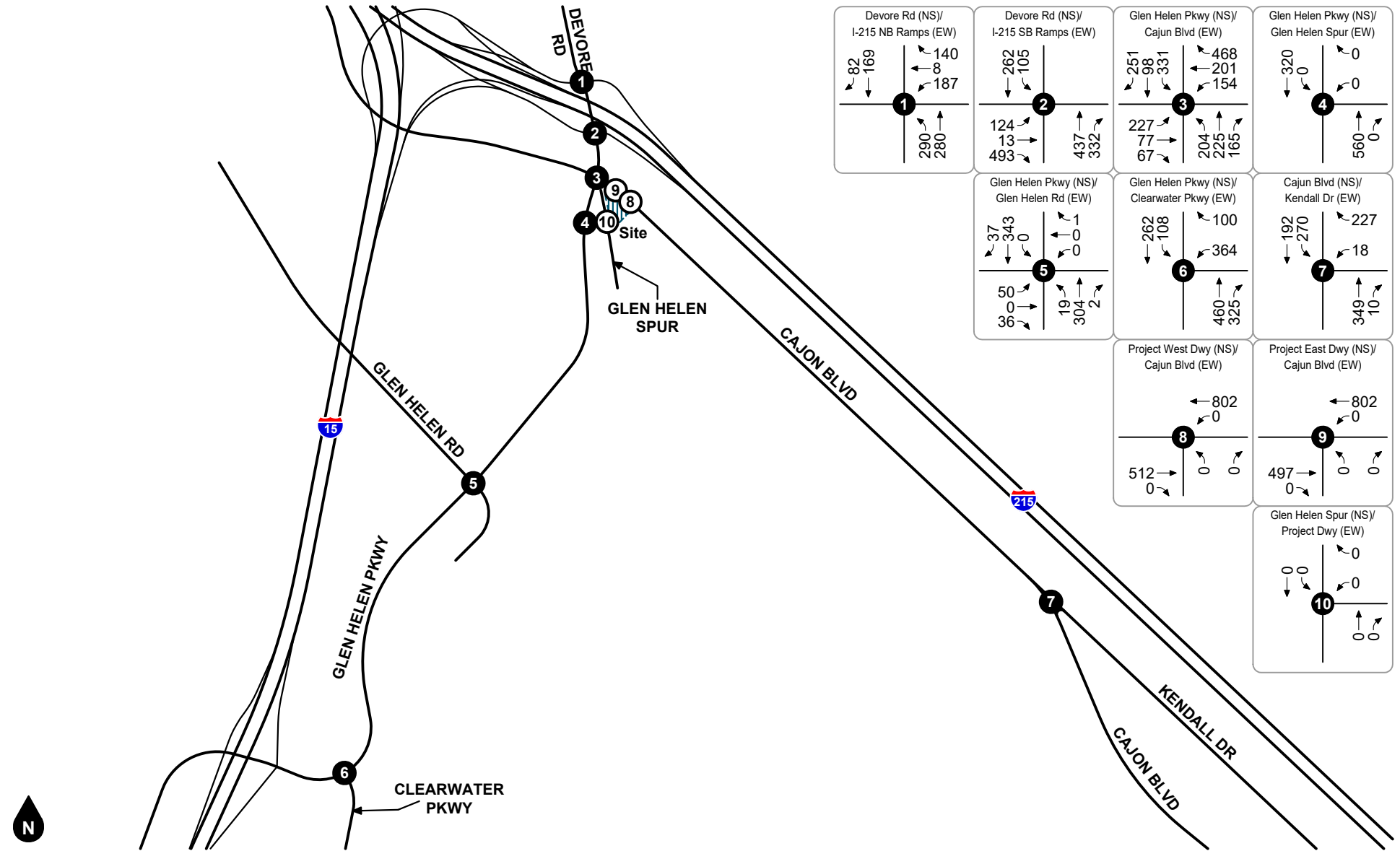


Figure 37
Year 2040 Without Project
PM Peak Hour Intersection Turning Movement Volumes

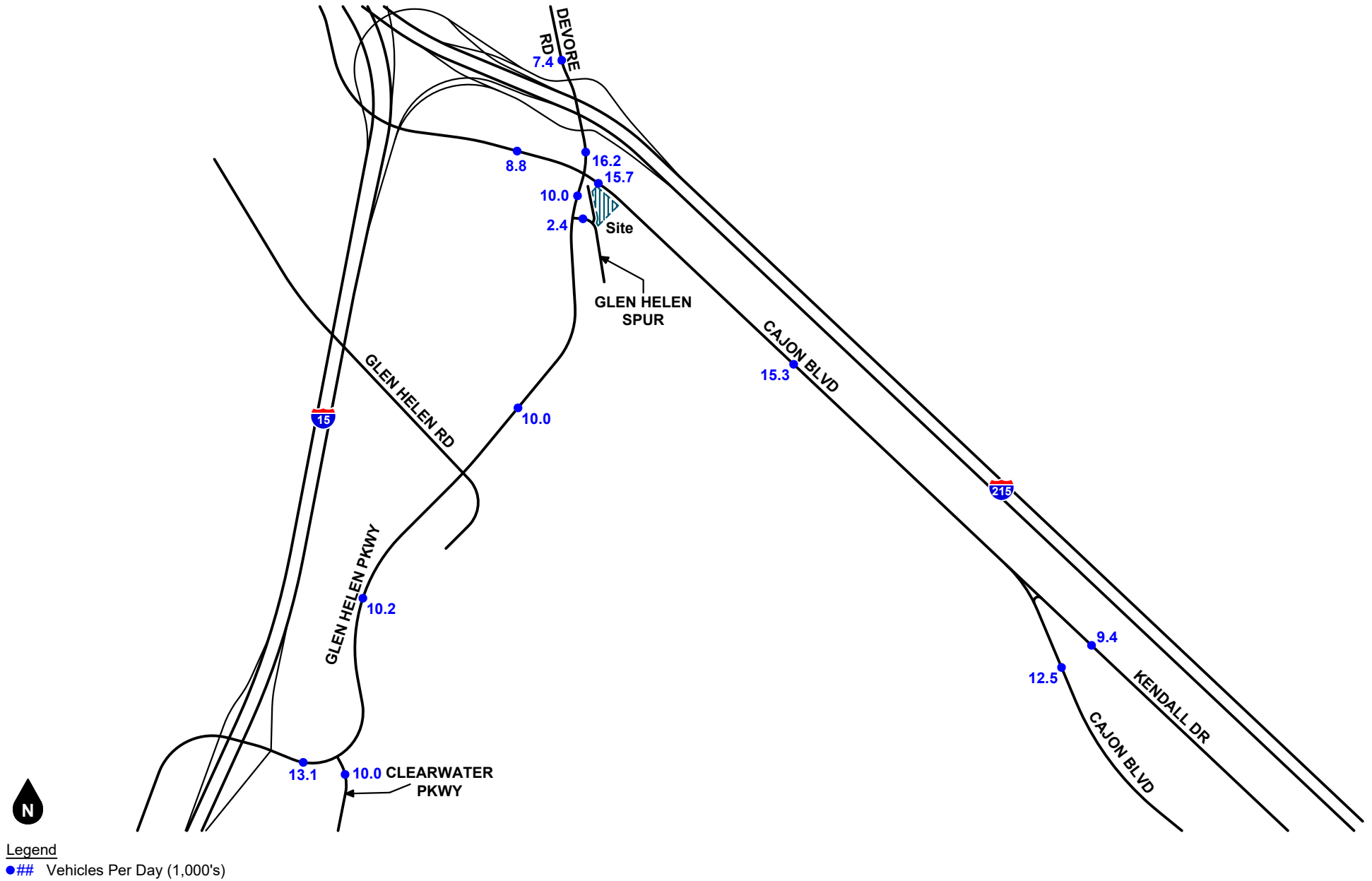


Figure 38
 Year 2040 With Project Average Daily Traffic Volumes

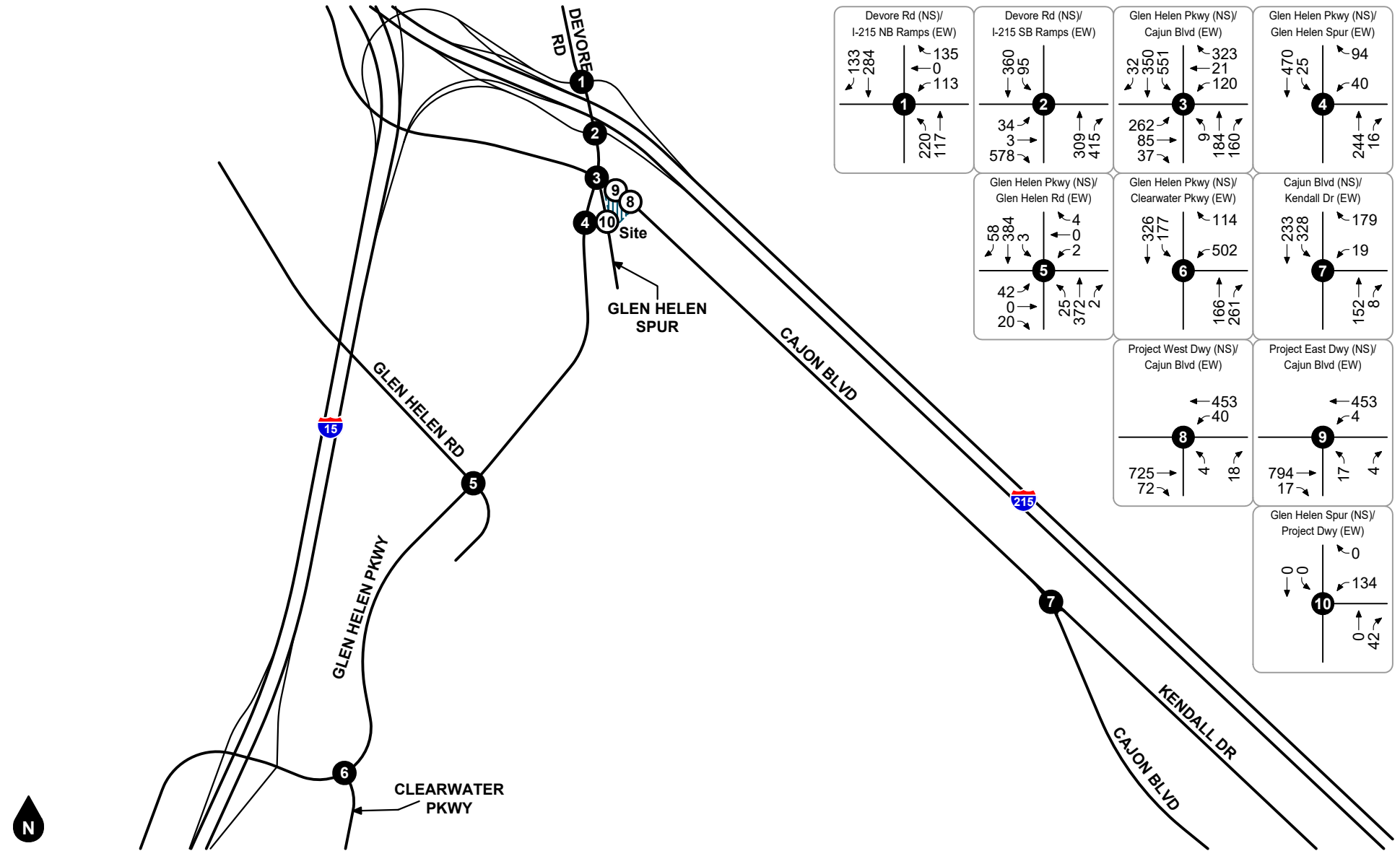


Figure 39
Year 2040 With Project
AM Peak Hour Intersection Turning Movement Volumes

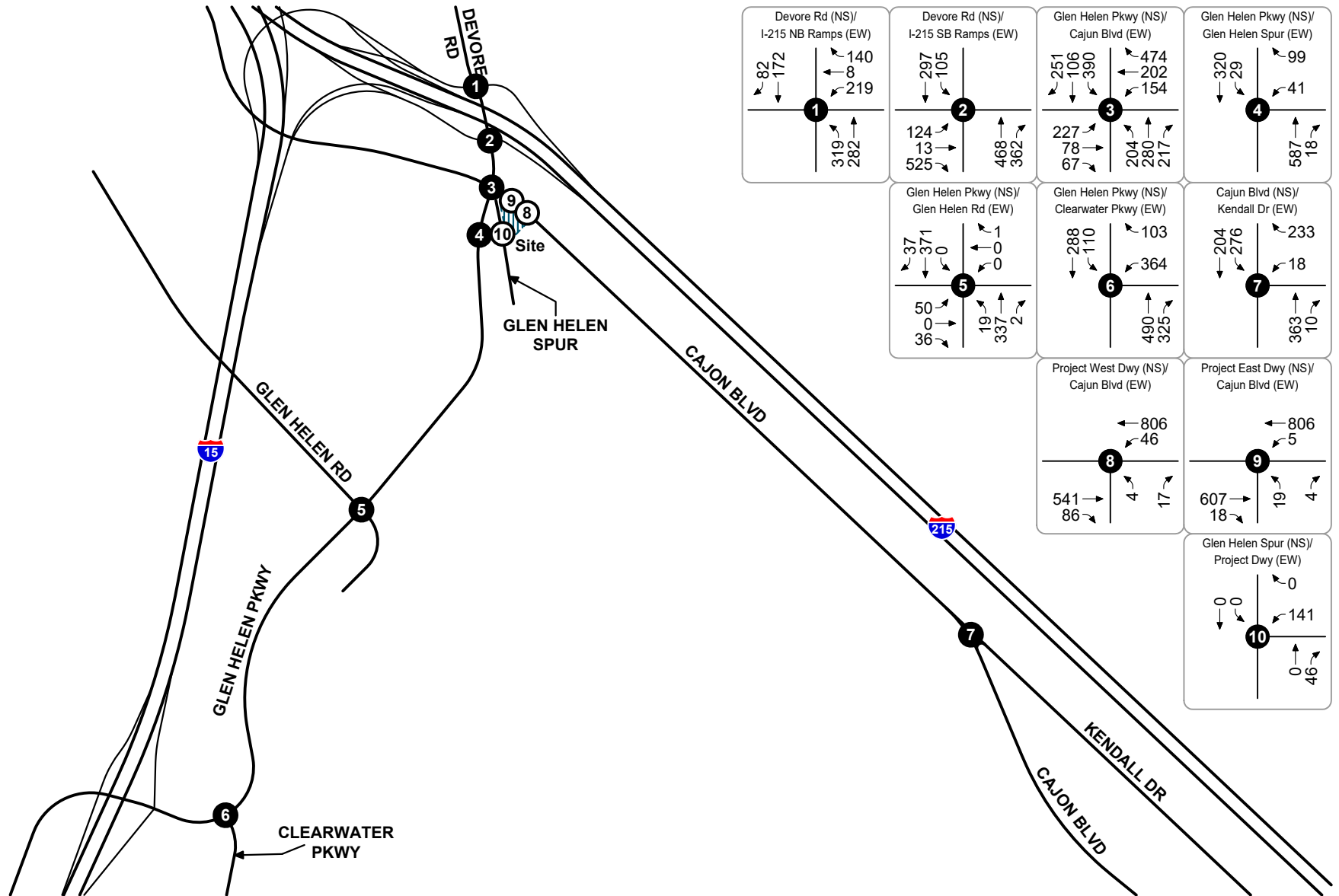


Figure 40
Year 2040 With Project
PM Peak Hour Intersection Turning Movement Volumes

6. FUTURE LEVELS OF SERVICE ANALYSIS

Detailed intersection Level of Service calculation worksheets for each of the following analysis scenarios are provided in Appendix D.

Project design features, such as improvements necessary to provide project site access, are assumed to be constructed by the proposed project and are described in further detail in the Site Access & Circulation section presented later in this report.

EXISTING PLUS PROJECT

The study intersection Levels of Service for Existing Plus Project conditions are shown in Table 4. As shown in Table 4, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Existing Plus Project conditions.

As shown in Table 4, the proposed project is forecast to result in no substantial transportation effects at the study intersections for Existing Plus Project conditions.

OPENING YEAR (2025) WITHOUT PROJECT

The study intersection Levels of Service for Opening Year (2025) Without Project conditions are shown in Table 5. As shown in Table 5, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2025) Without Project conditions except for the following intersection that is forecast to operate at an unacceptable Level of Service during the PM peak hour:

3. Glen Helen Parkway (NS) at Cajon Boulevard (EW) (LOS E – PM)

OPENING YEAR (2025) WITH PROJECT

The study intersection Levels of Service for Opening Year (2025) With Project conditions is shown in Table 6. As shown in Table 6, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2025) With Project conditions except for the following intersection that is forecast to continue operating at an unacceptable Level of Service during the peak hours:

3. Glen Helen Parkway (NS) at Cajon Boulevard (EW) (LOS E – AM/F - PM)

As shown in Table 6, the proposed project is forecast to result in a substantial transportation effect at the study intersection for Opening Year (2025) With Project conditions.

The following Level of Service impact improvements are recommended to maintain acceptable Levels of Service at the study intersections for Opening Year (2025) With Project conditions:

3. Glen Helen Parkway (NS) at Cajon Boulevard (EW)
 - Install a traffic signal

The Glen Helen Parkway at Cajon Boulevard intersection improvements are anticipated to be installed either during the construction of this project or during the construction of the Glen Helen Truck Trailer Yard (S18) located northwest of the Glen Helen Parkway at Glen Helen Road intersection (#5). A fair share contribution to this intersection is shown as the Glen Helen Truck Trailer Yard (S18) is currently expected to be complete prior to the proposed project. The project will either install the above-listed improvements or provide a fair share to the improvement construction.

YEAR 2040 WITHOUT PROJECT

The study intersection Levels of Service for Year 2040 Without Project conditions are shown in Table 7. As shown in Table 7, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Year 2040 Without Project conditions except for the following intersections that are forecast to operate at unacceptable Levels of Service during the peak hours:

2. Glen Helen Parkway (NS) at I-215 Southbound Ramp (EW) (LOS E – PM)
3. Glen Helen Parkway (NS) at Cajon Boulevard (EW) (LOS F – AM/PM)

The following Level of Service impact improvements are recommended to maintain acceptable Levels of Service at the study intersections for Year 2040 Without Project conditions in addition to the improvements previously identified for Opening Year (2025) conditions:

2. Glen Helen Parkway (NS) at I-215 Southbound Ramp (EW)
 - Construct one additional lane for the northbound approach to provide one-through lane and one-right-turn lane
3. Glen Helen Parkway (NS) at Cajon Boulevard (EW)
 - Construct one additional lane for the southbound approach to provide two left-turn lanes and one through-right-turn lane

As shown in Table 7, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours with improvements.

For the Year 2040 analysis scenarios, the existing lane configurations for Glen Helen Parkway between Cajon Creek and Cajon Boulevard are included in the traffic analysis to provide a conservative traffic analysis for this report. Currently, Glen Helen Parkway is one lane in each direction west of the roadway median.

For the “With Improvements” analysis scenarios, the future lane configurations for Glen Helen Parkway between the Glen Helen Railway Bridge to Cajon Boulevard are included in the analysis. The Glen Helen Cajon Creek Bridge Project is in the final design, approval and permitting process with an anticipated construction start date in late 2024. Therefore, the bridge and Glen Helen Parkway should be open with two lanes in each direction in Year 2040.

YEAR 2040 WITH PROJECT

The study intersection Levels of Service for Year 2040 With Project conditions is shown in Table 8. As shown in Table 8, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Year 2040 With Project conditions except for the following intersections that are forecast to continue operating at unacceptable Levels of Service during the peak hours:

2. Glen Helen Parkway (NS) at I-215 Southbound Ramp (EW) (LOS E – AM/F - PM)
3. Glen Helen Parkway (NS) at Cajon Boulevard (EW) (LOS F – AM/PM)

As shown in Table 8, the proposed project is forecast to operate within acceptable Levels of Service (D or better) during the peak hours with the previously listed improvements.

Table 4
Existing Plus Project Intersection Levels of Service & Project-Related Effect

Study Intersection	Traffic Control ¹	Existing				Existing Plus Project				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change	Substantial Effect?	Change	Substantial Effect?
		Delay ²	LOS ³	Delay ²	LOS	Delay ²	LOS ³	Delay ²	LOS				
1. Glen Helen Parkway at I-215 NB Ramps	AWS	8.7	A	9.2	A	8.9	A	9.5	A	+0.2	NO	+0.3	NO
2. Glen Helen Parkway at I-215 SB Ramps	AWS	10.1	B	11.2	B	11.0	B	12.4	B	+0.9	NO	+1.2	NO
3. Glen Helen Parkway at Cajon Boulevard	AWS	12.6	B	15.2	C	16.0	C	22.6	C	+3.4	NO	+7.4	NO
4. Glen Helen Parkway at Glen Helen Spur	CSS	0.0	A	0.0	A	11.6	B	12.9	B	+11.6	NO	+12.9	NO
5. Glen Helen Parkway at Glen Helen Road	CSS	9.7	A	9.3	A	9.9	A	9.4	A	+0.2	NO	+0.1	NO
6. Glen Helen Parkway at Clearwater Pkwy	TS	24.2	C	19.6	B	23.4	C	18.9	B	-0.8	NO	-0.7	NO
7. Cajon Boulevard at Kendall Drive	CSS	9.6	A	11.8	B	9.8	A	12.1	B	+0.2	NO	+0.3	NO
8. Project East Driveway at Cajon Blvd	CSS	-	-	-	-	11.1	B	11.4	B	+11.1	NA	+11.4	NA
9. Project West Driveway at Cajon Blvd	CSS	-	-	-	-	10.2	B	11.1	B	+10.2	NA	+11.1	NA

Notes:

1. AWS = All Way Stop; TS = Traffic Signal; CSS = Cross Street Stop
2. Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn movement.
3. LOS = Level of Service

Table 5
Opening Year (2025) Without Project Intersection Levels of Service

Study Intersection	Traffic Control ¹	AM Peak Hour		PM Peak Hour	
		Delay ²	LOS ³	Delay ²	LOS
1. Glen Helen Parkway at I-215 NB Ramps	AWS	10.0	A	11.0	B
2. Glen Helen Parkway at I-215 SB Ramps	AWS	17.1	C	19.3	C
3. Glen Helen Parkway at Cajon Boulevard	AWS	25.7	D	39.8	E
4. Glen Helen Parkway at Glen Helen Spur	CSS	0.0	A	0.0	A
5. Glen Helen Parkway at Glen Helen Road	CSS	15.0	B	13.2	B
6. Glen Helen Parkway at Clearwater Pkwy	TS	24.6	C	21.0	C

Notes:

1. AWS = All Way Stop; TS = Traffic Signal; CSS = Cross Street Stop
2. Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn movement.
3. LOS = Level of Service

Table 6
Opening Year (2025) Intersection Levels of Service & Project-Related Effect

Study Intersection	Traffic Control ¹	Opening Year (2025) Without Project				Opening Year (2025) With Project				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change	Substantial Effect?	Change	Substantial Effect?
		Delay ²	LOS ³	Delay ²	LOS	Delay ²	LOS ³	Delay ²	LOS				
1. Glen Helen Parkway at I-215 NB Ramps	AWS	10.0	A	11.0	B	10.4	B	11.7	B	+0.4	NO	+0.7	NO
2. Glen Helen Parkway at I-215 SB Ramps	AWS	17.1	C	19.3	C	21.6	C	24.8	C	+4.5	NO	+5.5	NO
3. Glen Helen Parkway at Cajon Boulevard	AWS	25.7	D	39.8	E	45.0	E	95.8	F	+19.3	YES	+56.0	YES
With Improvements	TS	-	-	-	-	53.8	D	54.7	D	+28.1	NO	+14.9	NO
4. Glen Helen Parkway at Glen Helen Spur	CSS	0.0	A	0.0	A	16.2	C	20.4	C	+16.2	NO	+20.4	NO
5. Glen Helen Parkway at Glen Helen Road	CSS	15.0	B	13.2	B	15.8	C	14.8	B	+0.8	NO	+1.6	NO
6. Glen Helen Parkway at Clearwater Pkwy	TS	24.6	C	21.0	C	24.0	C	20.7	C	-0.6	NO	-0.3	NO
7. Cajon Boulevard at Kendall Drive	CSS	10.5	B	13.5	B	10.6	B	14.7	B	+0.1	NO	+1.2	NO
8. Project East Driveway at Cajon Blvd	CSS	-	-	-	-	12.0	B	13.3	B	+12.0	NO	+13.3	NO
9. Project West Driveway at Cajon Blvd	CSS	-	-	-	-	11.6	B	13.9	B	+11.6	NA	+13.9	NA
10. Project Driveway at Glen Helen Spur	CSS	-	-	-	-	9.2	A	9.3	A	+9.2	NA	+9.3	NA

Notes:

1. AWS = All Way Stop; TS = Traffic Signal; CSS = Cross Street Stop
2. Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn movement.
3. LOS = Level of Service

Table 7
Year (2040) Without Project Intersection Levels of Service

Study Intersection	Traffic Control ¹	AM Peak Hour		PM Peak Hour	
		Delay ²	LOS ³	Delay ²	LOS
1. Glen Helen Parkway at I-215 NB Ramps	AWS	9.6	A	10.9	B
2. Glen Helen Parkway at I-215 SB Ramps	AWS	33.9	D	37.7	E
With Improvements	AWS	24.5	C	19.0	C
3. Glen Helen Parkway at Cajon Boulevard	AWS	67.3	F	90.4	F
With Improvements	TS	43.2	D	37.6	D
4. Glen Helen Parkway at Glen Helen Spur	CSS	0.0	A	0.0	A
5. Glen Helen Parkway at Glen Helen Road	CSS	14.5	B	13.1	B
6. Glen Helen Parkway at Clearwater Pkwy	TS	23.2	C	17.7	B
7. Cajon Boulevard at Kendall Drive	CSS	11.6	B	14.3	B

Notes:

1. AWS = All Way Stop; TS = Traffic Signal; CSS = Cross Street Stop
2. Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn movement.
3. LOS = Level of Service

Table 8
Year (2040) Intersection Levels of Service & Project-Related Effect

Study Intersection	Traffic Control ¹	Year (2040) Without Project				Year (2040) With Project				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change	Substantial Effect?	Change	Substantial Effect?
		Delay ²	LOS ³	Delay ²	LOS	Delay ²	LOS ³	Delay ²	LOS				
1. Glen Helen Parkway at I-215 NB Ramps	AWS	9.6	A	10.9	B	9.9	A	11.5	B	+0.3	NO	+0.6	NO
2. Glen Helen Parkway at I-215 SB Ramps With Improvements	AWS	33.9	D	37.7	E	46.3	E	51.9	F	+12.4	YES	+14.2	YES
	AWS	24.5	C	19.0	C	31.0	D	23.8	C	+6.5	NO	+4.8	NO
3. Glen Helen Parkway at Cajon Boulevard With Improvements	AWS	67.3	F	90.4	F	115.2	F	148.5	F	+47.9	YES	+58.1	YES
	TS	43.2	D	37.6	D	43.5	D	39.1	D	+0.3	NO	+1.5	NO
4. Glen Helen Parkway at Glen Helen Spur With Improvements	CSS	0.0	A	0.0	A	13.5	B	20.2	C	+13.5	NO	+20.2	NO
	CSS					14.2	B	20.3	C	+14.2	NO	+20.3	NO
5. Glen Helen Parkway at Glen Helen Road	CSS	14.5	B	13.1	B	15.2	C	13.7	B	+0.7	NO	+0.6	NO
6. Glen Helen Parkway at Clearwater Pkwy	TS	23.2	C	17.7	B	22.9	C	17.4	B	-0.3	NO	-0.3	NO
7. Cajon Boulevard at Kendall Drive	CSS	11.6	B	14.3	B	11.8	B	14.8	B	+0.2	NO	+0.5	NO
8. Project East Driveway at Cajon Blvd	CSS	-	-	-	-	13.8	B	13.2	B	+13.8	NA	+13.2	NA
9. Project West Driveway at Cajon Blvd	CSS	-	-	-	-	21.6	C	21.5	C	+21.6	NA	+21.5	NA

Notes:

1. AWS = All Way Stop; TS = Traffic Signal; CSS = Cross Street Stop
2. Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown.
For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn movement.
3. LOS = Level of Service

7. SITE ACCESS & ON-SITE CIRCULATION

This section evaluates the project site access and on-site circulation. Vehicular access for the project site is proposed via three full access driveways. One project driveway is on Glen Helen Spur, and two project driveways are on Cajon Boulevard.

PROJECT DESIGN FEATURES

This analysis assumes the following improvements will be constructed by the project to provide project site access:

7. Project East Driveway (NS) at Cajon Boulevard (EW)
 - Install outbound stop control.
 - Construct the project driveway to provide one inbound lane and one outbound lane.
8. Project West Driveway (NS) at Cajon Boulevard (EW)
 - Install outbound stop control.
 - Construct the project driveway to provide one inbound lane and one outbound lane.
9. Project Driveway (NS) at Glen Helen Spur (EW)
 - Install outbound stop control.
 - Construct the project driveway to provide one inbound lane and one outbound lane.

This analysis also assumes the project shall comply with the following conditions as part of the County of San Bernardino standard development review process to ensure adequate geometric design and emergency access:

- Site-adjacent roadways shall be constructed or repaired at their ultimate half-section width, including landscaping and parkway improvements in conjunction with development, or as otherwise required by the County of San Bernardino.
- All on-site and off-site roadway design, signing/stripping, and traffic control improvements relating to the proposed project shall be submitted to the County for review and constructed following applicable State/Federal engineering standards to the satisfaction of the County of San Bernardino.
- The final grading, landscaping, and street improvement plans shall demonstrate that applicable sight distance requirements are met.
- The project shall comply with the County of San Bernardino municipal parking requirements which will be reviewed as a part of the standard development review process.
- Final project plans shall demonstrate adequate emergency vehicle access and circulation to the satisfaction of the County of San Bernardino Public Works and Fire Departments.
- A construction worksite traffic control plan shall comply with applicable engineering standards outlined in the *California Manual of Uniform Traffic Control Devices* and shall be submitted to the County for review and approval before the issuance of a grading permit or start of construction. The plan shall identify any roadway, sidewalk, bike route, or bus stop closures and detours as well as haul routes and hours of operation. All construction-related trips shall be restricted to off-peak hours to the extent possible.

SITE ACCESS QUEUING ANALYSIS

Table 9 summarizes the results of the queue analysis for the key turn movements providing project site access and potential conflicts between the project driveways and the immediately adjacent intersection. The forecasted queue lengths shown in Table 9 are based on the HCM 95th-percentile back-of-queue methodology. Queuing calculations for the project driveways and the adjacent intersection are shown in the Level of Service worksheets provided in Appendix D.

As shown in Table 9, vehicle queues at for project driveways are forecast to operate within the available storage length during the peak hours for the Opening Year (2025) With Project and Year 2040 With Project.

TRAFFIC SIGNAL WARRANT ANALYSIS

The potential need for installation of a traffic signal at the project driveways was evaluated based on the *California Manual on Uniform Traffic Control Devices* ("California MUTCD," November 2014), Section 4C-04, peak hour volume warrant (Warrant 3). The *California MUTCD* Section 4C-01 states "satisfaction of one or more traffic signal warrants shall not in itself require the installation of a traffic signal" as engineering judgement should be applied to the physical considerations of the location.

Installation of a traffic signal is not warranted at the project driveways based on the peak hour volume warrant (Warrant 3) for the analysis scenarios.

Table 9
Site Access Queuing Analysis

Study Intersection	Approach	Lane	Storage Length (Feet) ²	Peak Hour 95th-Percentile Queue Length (Feet) ¹		Adequate Storage Provided
				Year (2040) With Project		
				AM	PM	
4. Glen Helen Parkway at Glen Helen Spur	Northbound	Thru-Right	3280	<20	<20	YES
	Southbound	Left-Thru	400	<20	<20	YES
	Westbound	Shared	175	25	45	YES
8. Project East Driveway at Cajon Blvd	Northbound	Shared	60	<20	<20	YES
	Eastbound	Thru-Right	160	<20	<20	YES
	Westbound	Left	70	<20	<20	YES
9. Project West Driveway at Cajon Blvd	Northbound	Shared	100	<20	<20	YES
	Eastbound	Thru-Right	70	<20	<20	YES
	Westbound	Left	50	<20	<20	YES
10 Project Driveway at Glen Helen Spur	Northbound	Thru-Right	60	<20	<20	YES
	Southbound	Left-Thru	330	<20	<20	YES
	Westbound	Shared	130	<20	<20	YES

Notes:

1. The forecast 95th-percentile queue lengths shown in the delay calculation worksheets have been rounded up to nearest 5-foot increment.
2. Length of turning lane storage or distance to the adjacent driveway.

8. IMPROVEMENTS & FAIR SHARE ANALYSIS

This section summarizes the recommended improvements identified in the previous sections of this report and the project's fair share toward any improvements required for cumulative conditions.

Project design features (as detailed in the Site Access & On-Site Circulation Section) involve improvements necessary to provide project site.

The following improvements are consistent with previous traffic studies within the study area and are recommended to maintain acceptable Levels of Service at the study intersection for Opening Year (2025) With Project conditions:

3. Glen Helen Parkway (NS) at Cajon Boulevard (EW)
 - Install a traffic signal

The Glen Helen Parkway at Cajon Boulevard intersection improvements are anticipated to be installed either during the construction of this project or during the construction of the Glen Helen Truck Trailer Yard (S18) located northwest of the Glen Helen Parkway at Glen Helen Road intersection (#5). A fair share contribution to this intersection is shown as the Glen Helen Truck Trailer Yard (S18) is currently expected to be complete prior to the proposed project. The project will either install the above-listed improvements or provide a fair share to the improvement construction.

The following improvements are consistent with previous traffic studies within the study area and are recommended to maintain acceptable Levels of Service at the study intersection for Year 2040 Without Project conditions:

2. Glen Helen Parkway (NS) at I-215 Southbound Ramp (EW)
 - Construct one additional lane for the northbound approach to provide one-through lane and one-right-turn lane
3. Glen Helen Parkway (NS) at Cajon Boulevard (EW)
 - Construct one additional lane for the southbound approach to provide two left-turn lanes and one through-right-turn lane

For the Year 2040 analysis scenarios, the existing lane configurations for Glen Helen Parkway between Cajon Creek and Cajon Boulevard are included in the traffic analysis to provide a conservative traffic analysis for this report. Currently, Glen Helen Parkway is one lane in each direction west of the roadway median.

For the "With Improvements" analysis scenarios, the future lane configurations for Glen Helen Parkway between the Glen Helen Railway Bridge to Cajon Boulevard are included in the analysis. The Glen Helen Cajon Creek Bridge Project is in the final design, approval and permitting process with an anticipated construction start date in late 2024. Therefore, the bridge and Glen Helen Parkway should be open with two lanes in each direction in Year 2040.

The proposed project is forecast to operate within acceptable Levels of Service (D or better) during the peak hours with the previously listed improvements for without project conditions.

DEVELOPMENT IMPACT FEE

The proposed project shall contribute towards the County of San Bernardino Development Impact Fee program as adopted in 2021 (Ordinance No. 4403 Sections 16.0215B(a) Local Area Transportation Facilities Plan Fee and 16.0215B(b) Regional Transportation Development Mitigation Plan Fee). The Development

Impact Fee provides a funding mechanism for arterial streets, traffic signals, interchange improvements as well as emergency services. The purpose of such fees is to minimize, to the greatest extent practicable, the impact that new development has on the County's public services and public facilities. The County intends for new development project applicants to pay their fair share of the costs of providing such public services and public facilities. Unless otherwise approved by the County, all development projects are required to pay the Development Impact Fee as a condition of development.

FAIR SHARE ANALYSIS

A fair share analysis was prepared to identify the share of project trips contributed to substantially impacted locations for which improvements are identified that may not be currently included in the County's Development Impact Fee program. The project fair share is based on the proportion of project peak hour trips contributed to the improvement location relative to the total new peak hour traffic volume.

The fair share analysis is shown in Table 10. Costs estimates are sensitive to the quantity and location of work specified for a given installation. These values represent the relative magnitude of the cost and should be verified through the bidding process.

Table 10
Fair Share Analysis

ID	Study Intersection	Estimated Construction Cost ¹	Peak Hour	Peak Hour Volume					Project % at Intersection ²	Project Fair Share Cost
				Existing	Year 2040 With Project	Project Trips	New Trips	Project % of New Trips		
2.	Glen Helen Parkway at I-215 SB Ramps	\$117,500	AM	802	1,794	116	992	11.7%	14.8%	\$17,367
			PM	1,028	1,894	128	866	14.8%		
3.	Glen Helen Parkway at Cajon Boulevard	\$705,000	AM	1,013	2,134	164	1,121	14.6%	14.6%	\$103,140
			PM	1,359	2,650	182	1,291	14.1%		
Total		\$844,800								\$120,507

Notes:

1. Cost estimate based on values from the San Bernardino County Transportation Authority Preliminary Construction Cost Estimates For Congestion Management Program (2003) and has been factored by 2.35 based on the California Construction Cost Index between January 2003 and June 2024. Costs estimates are sensitive to the quantity and location of work specified for a given installation. These values represent the relative magnitude of the cost and should be verified through the bidding process.
2. Project share of new trips shown are the greater of the AM or PM percent contribution.

9. VEHICLE MILES TRAVELED ASSESSMENT

This section provides an overview of the vehicle miles traveled (VMT) background, requirements, and summarizes the proposed project, VMT findings.

BACKGROUND

California Senate Bill 743

California Senate Bill 743 (SB 743) directs the State Office of Planning and Research (OPR) to amend the CEQA Guidelines for evaluating transportation impacts to provide alternatives to Level of Service that “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” In December 2018, the California Natural Resources Agency certified and adopted the updated CEQA Guidelines package. The amended CEQA Guidelines, specifically Section 15064.3, recommend the use of VMT as the primary metric for the evaluation of transportation impacts associated with land use and transportation projects. In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region. All agencies and projects State-wide are required to utilize the updated CEQA guidelines recommending use of VMT for evaluating transportation impacts as of July 1, 2020.

The updated CEQA Guidelines allow for lead agency discretion in establishing methodologies and thresholds provided there is substantial evidence to demonstrate that the established procedures promote the intended goals of the legislation. Where quantitative models or methods are unavailable, Section 15064.3 allows agencies to assess VMT qualitatively using factors such as availability of transit and proximity to other destinations. The Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (State of California, December 2018) [“OPR Technical Advisory”] provides technical considerations regarding methodologies and thresholds with a focus on office, residential, and retail developments as these projects tend to have the greatest influence on VMT.

VMT SCREENING ASSESSMENT

The project’s vehicle miles traveled (VMT) screening assessment has been prepared in accordance with County TIA Guidelines.

TPA Screening

Projects located within a TPA, defined as within one-half mile of a major transit stop or high-quality transit corridor, may be presumed to result in a less than significant VMT impact absent substantial evidence to the contrary. This presumption may not apply, however, if the project:

1. Has a Floor Area Ratio (FAR) of less than 0.75.
2. Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking)
3. Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the County with input from the Metropolitan Planning Organization); or
4. Replaces affordable residential units with a smaller number of moderate or high-income residential units.

Based on a review of the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool, the proposed project is not located within a TPA; therefore, the project does not satisfy the TPA screening criteria.

Low VMT Area Screening

Residential and office projects located within a low VMT generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, other employment-related and mixed-use land use projects may qualify for the use of screening if the project can reasonably be expected to generate VMT per resident, per worker, or per service population (residential plus employment) that is similar to the existing land uses in the low VMT area. A low VMT area is defined as a location where the traffic analysis zone (TAZ) VMT does not exceed the average total daily VMT per the applicable population threshold.

To identify if the project is in a low VMT area, the SBCTA VMT Screening Tool was used. The SBCTA VMT Screening Tool was developed from the San Bernardino Transportation Analysis Model (SBTAM) travel forecasting model to measure VMT performance for individual jurisdictions and for individual traffic analysis zones (TAZs). TAZs are geographic polygons similar to census block groups used to represent areas of homogenous travel behavior. Projects located in areas that incorporate similar features of the TAZ will tend to exhibit similar VMT. This presumption may not be appropriate if the project land uses would alter the existing built environment in such a way as to increase the rate or length of vehicle trips.

The proposed project is consistent with existing zoned land uses in the project TAZ and there does not appear to be anything unique about the project that would otherwise be misrepresented utilizing the data from the SBCTA VMT Screening Tool. Since the proposed project consists of only retail uses, the proposed project would satisfy the low VMT screening criteria if it is located in a TAZ where the average total daily origin-destination VMT per service population is 4 percent (4%) below the County regional average total daily origin-destination VMT per service population.

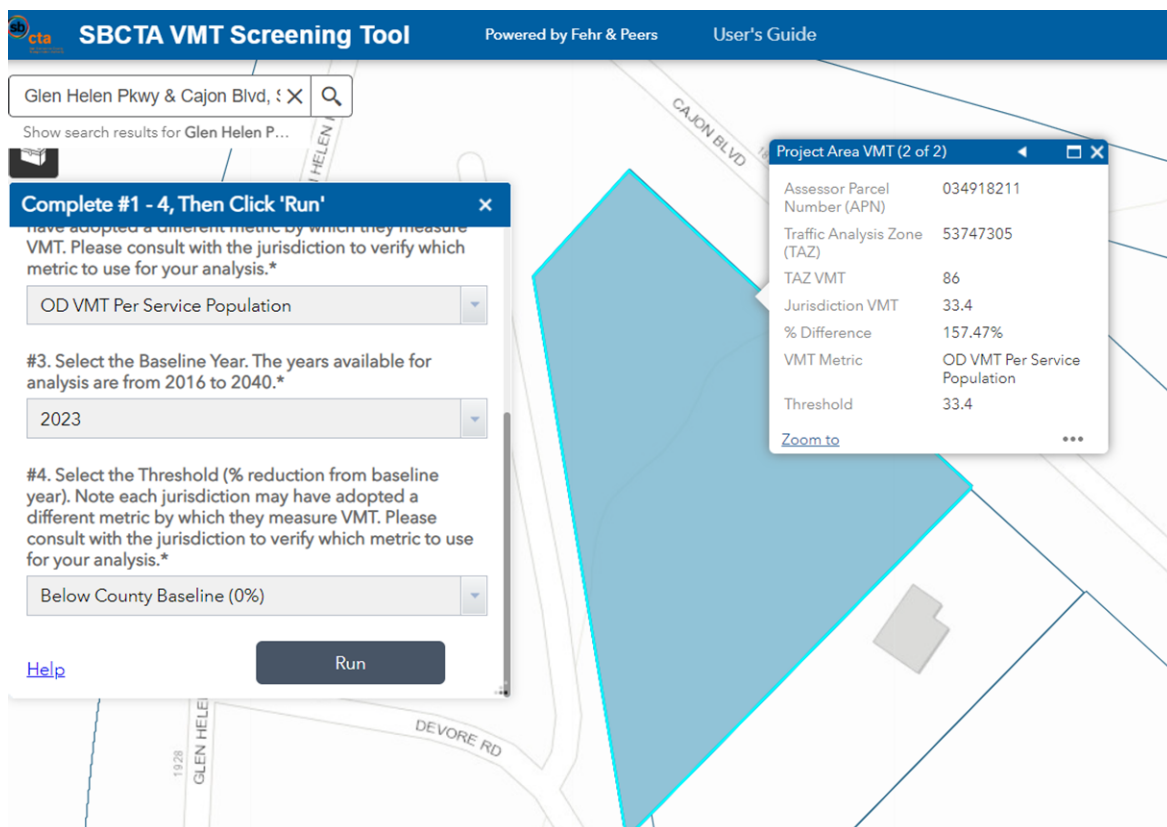


Exhibit A - SBCTA VMT Screening Tool Results

Exhibit A shows the SBCTA VMT Screening Tool results for the project site, which is located within TAZ 53747305. As shown in Exhibit A, the baseline year (2023) origin-destination average daily VMT per service population for the project TAZ is equal to 86.0, which exceeds four percent (4%) below the County baseline (32.1 average daily VMT per service population). Therefore, the proposed project does not satisfy the County-established screening criteria for projects located in a low VMT area.

Project Type Screening

The County TIA Guidelines identify the several types of projects that may be presumed to have a less than significant VMT impact as they are local serving and thus can be expected to reduce VMT or they are small enough to have a negligible impact:

- Projects consisting of local servicing land use
 - Local-serving K-12 schools
 - Local parks
 - Day care centers
 - Local-serving retail less than 50,000 square feet
 - Local gas stations
 - Local banks
 - Student housing projects
 - Local serving community colleges that are consistent with the assumptions noted in the RTP/SCS
- Trip Screening
 - Existing facilities
 - Redevelopment with less than 10,000 square foot increase
 - Projects generating with less than 110 daily passenger vehicle trips (ADT)
 - 11 single-family residential dwelling units
 - 16 multi-family residential dwelling units
 - 10,000 square feet of office
 - 15,000 square feet of light industrial
 - 63,000 square feet of warehousing
 - 79,000 square feet of high-cube transload and short-term storage warehouse
 - 12 hotel rooms

The proposed project consists of 2,905 square feet of local-servicing retail which promotes shorter retail trips. Therefore, the proposed project satisfies the County-established project type screening criteria.

SUMMARY OF PROJECT VMT ASSESSMENT

The proposed project satisfies the County-established VMT screening criteria for projects located in a low VMT area and consisting of less than 50,000 square feet of local-serving retail. Therefore, the proposed project may be presumed to result in a less than significant VMT impact.

10. CONCLUSIONS

This section summarizes the proposed project, operational findings, and identifies recommendations (if any) as specified in previous sections of this study. Figure 41 summarizes the recommended improvements.

PROJECT TRIP GENERATION

The proposed project is forecast to generate a total of approximately 4,800 PCE new daily trips, including 232 PCE new trips during the AM peak hour and 254 PCE new trips during the PM peak hour.

LEVEL OF SERVICE ANALYSIS

The study intersections currently operate or are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for the Existing and Existing Plus Project analysis scenarios. The proposed project is forecast to result in no substantial transportation effects relating to Level of Service operations for Existing Plus Project and Opening Year (2025) With Project conditions.

The study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for the Opening Year (2025) Without Project conditions except for the following intersection that is forecast to operate at an unacceptable Level of Service during the peak hours:

3. Glen Helen Parkway (NS) at Cajon Boulevard (EW) (LOS E – PM)

The study intersections are forecast to continue operating within acceptable Levels of Service (D or better) during the peak hours for the Opening Year (2025) With Project conditions except for the following intersection that is forecast to operate at an unacceptable Level of Service during the peak hours:

3. Glen Helen Parkway (NS) at Cajon Boulevard (EW) (LOS E – AM/PM)

The study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for the Year 2040 Without Project conditions except for the following intersections that are forecast to operate at unacceptable Levels of Service during the peak hours:

2. Glen Helen Parkway (NS) at I-215 Southbound Ramp (EW) (LOS E – PM)
3. Glen Helen Parkway (NS) at Cajon Boulevard (EW) (LOS F – AM/PM)

The study intersections are forecast to continue operating within acceptable Levels of Service (D or better) during the peak hours for the Year 2040 With Project conditions except for the following intersections that are forecast to operate at unacceptable Levels of Service during the peak hours:

2. Glen Helen Parkway (NS) at I-215 Southbound Ramp (EW) (LOS E – AM/F-PM)
3. Glen Helen Parkway (NS) at Cajon Boulevard (EW) (LOS F – AM/PM)

SUMMARY OF IMPROVEMENTS

The following Level of Service impact improvements are recommended to maintain acceptable Levels of Service at the study intersections for Opening Year (2025) With Project conditions:

3. Glen Helen Parkway (NS) at Cajon Boulevard (EW)
 - Install a traffic signal

The Glen Helen Parkway at Cajon Boulevard intersection improvements are anticipated to be installed either during the construction of this project or during the construction of the Glen Helen Truck Trailer Yard (S18) located northwest of the Glen Helen Parkway at Glen Helen Road intersection (#5). A fair share contribution to this intersection is shown as the Glen Helen Truck Trailer Yard (S18) is currently expected to be complete prior to the proposed project. The project will either install the above-listed improvements or provide a fair share to the improvement construction.

The following Level of Service impact improvements are recommended to maintain acceptable Levels of Service at the study intersections for Year 2040 Without Project conditions in addition to the improvements previously identified for Opening Year (2025) conditions:

2. Glen Helen Parkway (NS) at I-215 Southbound Ramp (EW)
 - Construct one additional lane for the northbound approach to provide one-through lane and one-right-turn lane
3. Glen Helen Parkway (NS) at Cajon Boulevard (EW)
 - Construct one additional lane for the southbound approach to provide two left-turn lanes and one through-right-turn lane

For the Year 2040 analysis scenarios, the existing lane configurations for Glen Helen Parkway between Cajon Creek and Cajon Boulevard are included in the traffic analysis to provide a conservative traffic analysis for this report. Currently, Glen Helen Parkway is one lane in each direction west of the roadway median.

For the “With Improvements” analysis scenarios, the future lane configurations for Glen Helen Parkway between the Glen Helen Railway Bridge to Cajon Boulevard are included in the analysis. The Glen Helen Cajon Creek Bridge Project is in the final design, approval and permitting process with an anticipated construction start date in late 2024. Therefore, the bridge and Glen Helen Parkway should be open with two lanes in each direction in Year 2040.

The proposed project is forecast to operate within acceptable Levels of Service (D or better) during the peak hours with the previously listed improvements.

SITE ACCESS IMPROVEMENTS

Project design features, necessary to provide project access, are outlined in the Site Access & On-Site Circulation (see Section 7).

VEHICLE MILES TRAVELED ANALYSIS

For compliance with CEQA requirements, the project satisfies the County-established VMT screening criteria; therefore, the proposed project may be presumed to result in a less than significant VMT impact. The project VMT assessment is documented in Vehicle Miles Traveled Analysis (Section 9) of this report.

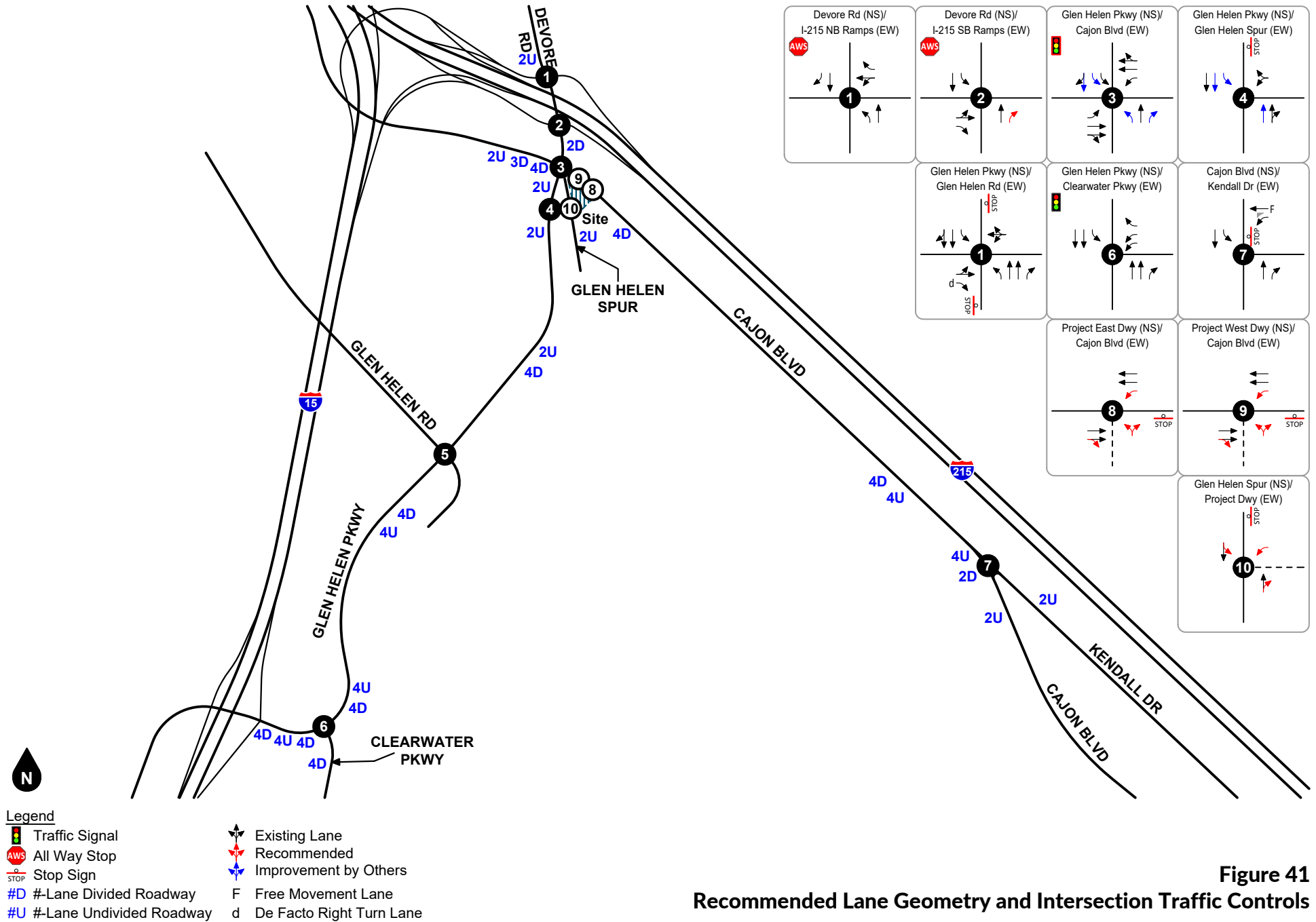


Figure 41
Recommended Lane Geometry and Intersection Traffic Controls

APPENDICES

Appendix A Glossary

Appendix B Scoping Agreement

Appendix C Traffic Count Data

Appendix D Intersection Level of Service Worksheets

Appendix E Post Processing Worksheets

APPENDIX A

GLOSSARY

ACRONYMS

AC	Acres
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
DU	Dwelling Unit
ICU	Intersection Capacity Utilization
GFA	Gross Floor Area
LOS	Level of Service
PCE	Passenger Car Equivalent
SF	Square Foot
SP	Service Population
TSF	Thousand Square Feet
V/C	Volume to Capacity Ratio
VMT	Vehicle Miles Traveled

TERMS

ACTUATED SIGNAL CONTROL: A type of traffic signal control in which display of each phase depends on whether the corresponding phase detector has registered a service call or the phase is on recall.

ACTUATION: Detection of a roadway user that is forwarded to the signal controller.

AVERAGE DAILY TRAFFIC: The average 24-hour volume for a stated period is divided by the number of days in that period. For example, Annual Average Daily Traffic is the total volume during a year divided by 365 days.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A point of constriction along a roadway that limits the amount of traffic that can proceed downstream from its location.

CALL: An indication within a signal controller that a particular phase is waiting for service, either through actuation from a roadway user or phase recall.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass through a roadway facility during a specified period.

CHANNELIZATION: The separation of conflicting traffic movements by use of pavement markings, raised curbs, or other suitable means to facilitate free flow movement.

CLEARANCE INTERVAL: Equal to the yellow plus all-red time, if any, when a traffic signal changes between phases (i.e., the amount of time between the end of a green light from one movement to the beginning of a green light for the next).

COORDINATED SIGNAL CONTROL: A type of traffic signal control in which non-coordinated phases associated with minor movements are constrained such that the coordinated phases are served at a specific time during the signal cycle, thus maintaining the efficient progression of traffic flow along the major roadway.

CONTROL DELAY: The portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign). It includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay.

CORDON: An imaginary boundary line around or across a study area across which vehicles, persons, or other information can be collected for survey and analytical purposes.

CORNER SIGHT DISTANCE: The minimum sight distance required by the driver of a vehicle to cross or enter the lanes of the major roadway without requiring approaching traffic traveling at a given speed to radically alter their speed or trajectory.

CYCLE: A complete sequence of signal indications for all phases. Also known as a signal cycle.

CYCLE LENGTH: The total time for a traffic signal to complete one full cycle.

DAILY CAPACITY: A theoretical value representing the daily traffic volume that will typically result in a peak hour volume equal to the capacity of the roadway.

DELAY: The total additional travel time experienced by a roadway user (driver, passenger, bicyclist, or pedestrian) beyond that required to travel at a desired speed.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device used to count or determine the presence of a roadway user.

DESIGN SPEED: A speed used for purposes of designing horizontal and vertical alignments of a highway.

DIRECTIONAL SPLIT: The percent of two-way traffic traveling in a specified direction.

DIVERSION: The rerouting of traffic from a normal path of travel between two points, such as to avoid congestion or perform a secondary trip.

FREE FLOW: Traffic flow that is unaffected by a traffic control and/or or upstream or downstream conditions.

GAP: Time or distance between two vehicles measured from rear bumper of the front vehicle to front bumper of the second vehicle.

GAP ACCEPTANCE: The method by which a driver accepts an available gap in traffic to enter or cross the road.

HEADWAY: Time or distance between two successive vehicles measured from same point on both vehicles (i.e., front bumper to front bumper). Also known as gap.

LEVEL OF SERVICE: A grading scale of quantitative performance measures representing the quality of service of a transportation facility or service from an average traveler's perspective.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MULTI-MODAL: More than one mode, such as automobile, transit, bicycle, and pedestrian.

OFFSET: The time interval between the beginning of a traffic signal cycle at one intersection and the beginning of signal cycle an adjacent intersection.

PLATOON: A set of vehicles traveling at similar speed and moving as a general group with clear separation between other vehicles ahead and behind.

PASSENGER CAR EQUIVALENT: A metric used to assess the impact of larger vehicles, such as trucks, recreational vehicles, and buses, by converting the traffic volume of larger vehicles to an equivalent number of passenger cars.

PEDESTRIAN CLEARANCE INTERVAL: Also known as the “Flashing Don’t Walk” interval, it signals the end of pedestrian entry into the crosswalk following the “Walk” indication and provides time for pedestrians who have already entered the crosswalk to finishing crossing.

PEAK HOUR: The hour within a day in which the maximum volume occurs.

PEAK HOUR FACTOR: The peak hour volume divided by the four times the peak 15-minute flow rate.

PHASE: In traffic signals, the green, yellow, and red clearance intervals assigned to a specified traffic movement.

PRETIMED SIGNAL: A traffic signal operation in which the cycle length, phasing sequence, and phasing times are predetermined and fixed, regardless of actual demand for any given traffic movement. Also known as a fixed time signal.

PROGRESSION: The coordinated movement of vehicles through signalized intersections along a corridor.

QUEUE: The number of vehicles waiting at a service area such as a traffic signal, stop sign, or access gate.

QUEUE LENGTH: The length of vehicle queue, typically expressed in feet, waiting at a service area such as a traffic signal, stop sign, or access gate.

RECALL: A signal phasing operation in which a specified phase places a call to the signal controller each time a conflicting phase is served, thus ensuring the specified phase will be serviced again.

SEMI-ACTUATED CONTROL: A type of traffic signal control in which only the minor movements are provided detection.

SIGHT DISTANCE: The continuous length of roadway visible to a driver or roadway user.

STACKING DISTANCE: The length of area available behind a service area, such as a traffic signal or gate, for vehicle queuing to occur.

STOPPING SIGHT DISTANCE: The minimum distance required by the driver of a vehicle traveling at a given speed to bring the vehicle to a stop after an object on the road becomes visible, including reaction and response time.

TRAFFIC-ACTUATED SIGNAL: A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors. Also known as a demand responsive signal.

TRIP OR TRIP END: The one-directional movement of a person or vehicle. Every trip has an origin and a destination at its respective ends (i.e., trip ends). In terms of site trip generation, the same vehicle entering and exiting a site generates two trips: one inbound trip and one outbound trip.

TRIP GENERATION RATE: The rate at which a land use generates trips per the specified land use variable, such per dwelling unit or per thousand square feet.

TURNING RADIUS: The circular arc formed by the smallest turning path radius of the front outside tire of a vehicle, such as that performed by a U-turn maneuver. This is based on the length and width of the wheelbase as well as the steering mechanism of the vehicle.

VEHICLE MILES TRAVELED: A measure of the amount and distance of automobile travel essentially calculated as the sum of each trip times the trip length.

APPENDIX B

SCOPING AGREEMENT



SCOPE FOR TRAFFIC STUDY

Project Name:	Glen Helen & Cajon Gas Station
Project Number	Traffic Study EZOP No. TRSTY-2022-00027
Application Number	PREA-2022-00117

This Scope for Traffic Study acknowledges San Bernardino County Department of Public Works, Traffic Division requirements of traffic impact analysis for the project and is subject to change:

Available on the Department of Public Works Website:

<http://cms.sbcounty.gov/dpw/Transportation/Traffic.aspx>

Project Address/APN	0349-182-11		
Project Description	5 fuel position gas station (truck), 2,000 SF convenience store with 12 fuel position gas station, and 1,000 SF fast food with drive-thru.		
City	San Bernardino, CA County of San Bernardino		
Project Horizon Year	2040	Project Opening Year	2024
Closest Intersection (Xtn) to the Project			
Xtn N/S Street Name	Glen Helen Parkway / Devore Road		
Xtn E/W Street Name	Cajon Boulevard		
County Supervisorial District	5	Ambient Growth Rate per Year Valley 2%, Desert 1%	2%

	Traffic Engineer	Owner/Developer
Company	Ganddini Group, Inc.	
Name	Perrie Ilercil	Henry Oliver
Address	555 Parkcenter Drive Ste. 225	4370 Hallmark Parkway Ste. 101
City, State, Zip Code	Santa Ana, CA 92705	San Bernardino, CA 92407
Phone #	714-795-3100 ext. 103	951-232-4378
Email address	perrie@ganddini.com	Saman_bagi@yahoo

Prepared By:

Print Name:

Perrie Ilercil

~~Owner~~ Traffic Engineer

Date
2022-0715
2023-0403



SCOPE FOR TRAFFIC STUDY

Project Name:	Glen Helen & Cajon Gas Station
Project Number	Traffic Study EZOP No. TRSTY-2022-00027
Application Number	PREA-2022-00117

1. Traffic Distribution: Please insert or attach Figure(s) illustrating project trip distribution in percentages and volumes at the study intersections analyzed.

See Figures 5 and 6 for trip distribution.

2. Trip Credit: Exact amount of credit subject to approval by Traffic Division.

See attached Table 1 Project Trip Generation

Transportation Demand Management (TDM)	Yes/no	N/A
Existing Active Land Use	Yes/no	N/A - vacant
Previous Land Use	Yes/no	N/ A - vacant
Internal Trip Reduction	Yes	See NCHRP 684 Internal Trip Worksheets
Pass-by Trip Reduction	Yes	See Trip Generation Table

3. Related Projects: Consultant should check with Planning in the San Bernardino County Department of [Land Use Services](#) and planning departments of adjoining Cities. Documentation of the consultation from these agencies shall be included in the traffic study. Related projects list shall be submitted to Traffic Division for our review and approval before being incorporated in the study.

4. Freeway Analysis: The potential traffic impact on the following Freeway(s) must be considered.

N/A - I-215 mainline- less than 25 trips are forecast on the NB and SB mainline.

I-215 NB and SB ramp intersections at Glen Helen Parkway are included in this scope of work.

The applicant shall consult with the State of California Department of Transportation (Caltrans) to determine the California Environmental Quality Act levels of significance with regard to traffic impacts on Caltrans' freeway facilities. This consultation shall also include a determination of Caltrans requirements for the study of traffic impacts to its facilities and the mitigation of any such impacts. This analysis must follow the most current Caltrans' Vehicle Miles Traveled-Focused Transportation Impact Study Guide (May 2020) and can be obtained from <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-05-20-approved-vmt-focused-tisg-a11y.pdf>. If Caltrans finds that the project has a significant impact on the freeway, Caltrans shall be requested to include the basis for this finding in their response. If fees are proposed to mitigate the freeway impact, Caltrans shall be requested to identify the specific project to which the fees will apply. These written comments from Caltrans shall be included with the traffic study and submitted to Public Works for review and approval. If a documented good faith effort is made to consult with Caltrans and written comments cannot be obtained from within a reasonable amount of time, an analysis of the freeway impact shall be made using HCM procedures. Appendix A of the San Bernardino County Transportation Authority CMP outlines allowable modifications to these procedures. The San Bernardino County Transportation Authority CMP can be viewed online at: <https://www.gosbcta.com/planning-sustainability/?term=249>



SCOPE FOR TRAFFIC STUDY

Project Name:	Glen Helen & Cajon Gas Station
Project Number	Traffic Study EZOP No. TRSTY-2022-00027
Application Number	PREA-2022-00117

5. Trip Generation

Trip Generation Rate(s) Source: ITE Trip Generation		I – Institute of Transportation Engineers; S – San Diego Traffic Generators; C – County; O – Other:										Edition:		11 th 2021	
Land Use Code	Land Use	Rate Based on	QTY	AVTE Units*	Daily Trips	Weekday A.M. Peak			Weekday P.M. Peak			Weekend peak hour			
						In	Out	Total	In	Out	Total	In	Out	Total	
ITE 934	Fast-Food Restaurant with Drive-Through Window	TSF	1.000		467	23	22	45	17	16	33	28	27	55	
ITE 950	Truck Stop	VFP	5		1,120	34	36	70	41	36	77				
ITE 945 *	Convenience Store Gas Station (Average)	TSF VFP	2.000 12		2,291	77	76	153	83	82	165	77	76	153	
	Internal Trip Credits				-74	-15	-15	-30	-12	-10	-22				
	Pass-by Trip Credits				-969	-63	-61	-124	-66	-65	-131				

* - Average Vehicle Trip Ends.

For ITE Land Uses provide number and name of Land Use. e.g. LU 814 - Variety Store. Units include ksf, employee, GLA, etc.

* The project trips calculated from the ITE land use code 945 which apply by either square footage or fuel positions varies by more than 25%; therefore, an average of the resulting trips has been calculated for use on this project.



SCOPE FOR TRAFFIC STUDY

Project Name:	Glen Helen & Cajon Gas Station
Project Number	Traffic Study EZOP No. TRSTY-2022-00027
Application Number	PREA-2022-00117

6. Study Intersections: At minimum, the study shall include the following intersections. The list is subject to change after related projects, trip generation and distribution are determined. Consultant should check with adjoining Cities regarding their requirements in addition to the following County/City intersections. Documentation of the consultation from these agencies shall be included in the traffic study.

Xtn #	% County	% City	N-S/E-W Street Name	City Name/Caltrans	Signalized	CMP
1	100		Glen Helen Parkway at I-215 NB Ramps	Caltrans	NO	YES
2	100		Glen Helen Parkway at I-215 SB Ramps	Caltrans	NO	YES
3	100		Glen Helen Parkway at Cajon Boulevard	unincorporated	NO	NO
4	100		Glen Helen Parkway at Glen Helen Spur	unincorporated	NO	NO
5	100		Glen Helen Parkway at Clearwater Parkway	unincorporated	NO	NO
6	100		Cajon Boulevard at Kendall Drive	unincorporated	NO	NO
7	100		Project Driveway at Glen Helen Spur	unincorporated	NO	NO
8	100		Project Driveway at Cajon Boulevard	unincorporated	NO	NO
9	100		Project Driveway at Cajon Boulevard	unincorporated	NO	NO
10					Yes/no	Yes/no

Cities/agencies to be consulted:

San Bernardino



SCOPE FOR TRAFFIC STUDY

Project Name:	Glen Helen & Cajon Gas Station
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7. Other:

Traffic counts may be conducted immediately per the following:
• Must be taken on Tuesdays, Wednesdays or Thursdays. • Certain projects may need to collect traffic counts on Friday or Sunday
• Must exclude holidays, and the first weekdays before and after the holiday.
• Must be taken on days when local schools or colleges are in session.
• Must be taken on days of good weather, and avoid atypical conditions (e.g., road construction, detours, or major traffic incidents).
• Traffic counts used for other traffic studies in the area shall NOT be reused again, unless 25% of the counts conducted for that particular traffic study are validated with new counts. The difference in volumes between the old and new counts at each corresponding movement should not be more than 10%.
• New traffic counts shall be checked to ensure the difference in volumes at corresponding approaches, if applicable, between two adjacent intersections is no more than 10% unless the difference can be justified.
• For all proposed mitigation measures, a conceptual plan for the improvements shall be submitted to our Traffic Studies section for review and approval prior to the approval of the Traffic Impact Analysis. All proposed improvements shall be within the right-of-way.
• For all cumulative mitigation measures, a cost estimate for the improvement shall be submitted.
• Raw traffic counts data must be included with traffic analysis study
• Traffic Counts must not be older than 1 year prior to submittal unless approved by County Traffic.

This analysis must follow the most current Traffic Impact Study Guidelines for the County as stated in the County's Road Planning and Design Standards.

8. Fees

The County charges on an actual cost basis for review of traffic studies. An initial deposit of \$1,802 is required at the time that a land use application is filed with the Department of Land Use Services. If the review costs exceed the initial deposit, the applicant will be expected to provide additional funds and the review will be suspended until the additional funds are deposited.



SCOPE FOR TRAFFIC STUDY

Project Name:	Glen Helen & Cajon Gas Station
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9. Contact Information:

Please submit a signed copy of this scope for approval by the Traffic Division. Draft scopes may be sent electronically. Final scope with signature should be submitted in person or by US Mail to:

County of San Bernardino
Dept. of Public Works, Traffic Division
825 E. 3rd Street, Rm 115
San Bernardino, CA 92415-0835

Phone: 909-387-8186

Fax: 909-387-7809

Email: Osvaldo.Roque@dpw.sbcounty.gov or Shawn.Johnson@dpw.sbcounty.gov

Glen Helen & Cajon Gas Station

The project has been screened for both level of service (LOS) analysis and vehicle miles traveled (VMT) analysis using the established criteria as specified in the County of San Bernardino *Transportation Impact Study Guidelines (July 2019)*.

As shown in Table 1, the proposed project consists of 3,000 square feet of commercial retail which is forecast to generate approximately 2,835 daily vehicle trips, including 114 vehicle trips during the AM peak hour and 122 vehicle trips during the PM peak hour; and 4,297 PCE daily trips, including 200 PCE trips during the AM peak hour and 219 PCE trips during the PM peak hour.

- The project does not satisfy the County-established LOS screening criteria for projects generating more than 100 peak hour trips. Therefore, the proposed project does warrant preparation of a transportation impact study with LOS analysis based on the County-established screening criteria.
- The proposed project satisfies the screening criteria for local-servicing retail (less than 50,000 square feet); therefore, preparation of a transportation impact study with vehicle miles traveled (VMT) analysis is not warranted based on the County-established screening criteria and may be presumed to result in a less than significant VMT impact.

The purpose of this Scoping Agreement is to provide a preliminary review of the proposed project's trip generation and parameters for level of service (LOS) analysis with respect to local performance standards, and document the proposed project's screening assessment regarding exemption of further vehicle miles traveled (VMT) analysis.

Table 1
Project Trip Generation

Trip Generation Rates									
Land Use	Source ¹	Land Use Variable ²	AM Peak Hour			PM Peak Hour			Daily Rate
			% In	% Out	Rate	% In	% Out	Rate	
Fast-Food Restaurant with Drive-Through Window	ITE 934	TSF	51%	49%	44.61	52%	48%	33.03	467.48
Convenience Store Gas Station (2-4 ksf GFA)	ITE 945	VFP	50%	50%	16.06	50%	50%	18.42	265.12
Convenience Store Gas Station (9-15 VFP)	ITE 945	TSF	50%	50%	56.52	50%	50%	54.52	700.43
Truck Stop	ITE 950	VFP	49%	51%	13.97	53%	47%	15.42	224.00

Trips Generated									
Land Use	Source	Quantity	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Fast-Food Restaurant with Drive-Through Window	ITE 934	1,000 TSF	23	22	45	17	16	33	467
Internal Capture Trips	ITE ⁴		-12	-3	-15	-5	-7	-12	-40
Pass-by Trips (50% AM, 55% PM, 26% Daily)	ITE 934 ⁵		-6	-9	-15	-7	-5	-12	-121
Subtotal			5	10	15	5	4	9	306
Convenience Store (2 TSF, 12 VFP)									
Convenience Store Gas Station (2-4 ksf GFA)	ITE 945	12 VFP	96	97	193	111	110	221	3,181
Convenience Store Gas Station (9-15 VFP)	ITE 945	2,000 TSF	57	56	113	55	54	109	1,401
Convenience Store Gas Station Average ⁶	ITE 945		77	76	153	83	82	165	2,291
Internal Capture Trips	ITE ⁴		-2	-8	-10	-5	-2	-7	-23
Pass-by Trips (76% AM, 75% PM, 37% Daily)	ITE 945 ⁵	TSF	-57	-52	-109	-59	-60	-119	-848
Subtotal			18	16	34	19	20	39	1,420
Truck Stop	ITE 950	5 VFP	34	36	70	41	36	77	1,120
Internal Capture Trips	ITE ⁴		-1	-4	-5	-2	-1	-3	-11
Subtotal			33	32	65	39	35	74	1,109
Subtotal Project Trips			134	134	268	141	134	275	3,878
Total Internal Capture Trips (11% AM, 9% PM)			-15	-15	-30	-12	-10	-22	-74
Subtotal - External Project Trips			119	119	238	129	124	253	3,804
Total Pass-by Trips			-63	-61	-124	-66	-65	-131	-969
TOTAL VEHICLE TRIPS GENERATED		3,000 TSF	56	58	114	63	59	122	2,835
Total light-duty vehicle trips			23	26	49	24	24	48	1,726
Total truck trips ⁷			33	32	65	39	35	74	1,109
2-axle	40.82%	1.5 PCE	20	20	40	24	21	45	679
3-axle	6.89%	2 PCE	5	4	9	5	5	10	153
4+-axle	52.28%	3 PCE	52	50	102	61	55	116	1,739
Truck Passenger Car Equivalent (PCE) ⁸ Trips			77	74	151	90	81	171	2,571
TOTAL PCE TRIPS GENERATED			100	100	200	114	105	219	4,297

Notes:

1. ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = Land Use Code.
All rates based on General Urban/Suburban setting.
2. TSF = Thousand Square Feet; VFP = Vehicle Fuel Position; PCE = passenger car equivalent.
3. ITE rates supplemented with data from San Diego Association of Governments (SANDAG) *Vehicular Traffic Generation Rates* (April 2002). Where the daily or peak hour rate is not provided by ITE, the SANDAG percentage of peak hour to daily rate is used to calculate the missing data. Where the peak hour distribution is not provided by ITE, the SANDAG peak hour distribution is used.
4. Internal capture rates calculated in accordance with procedures in the ITE *Trip Generation Manual* (3rd Edition, 2017). The daily internal capture rate is equal to half of the AM and PM peak hour average internal rates. See Attachment A for internal capture rates.
5. Pass-by rates calculated in accordance with procedures in the ITE *Trip Generation Handbook* (11th Edition, 2021). Daily pass-by is calculated using half of the AM and PM pass-by average rates for the daily rate.
6. ITE provides two sets of trip rates that can be used to estimate trip generation for the proposed Convenience Store Gas Station land use: 1) trips per vehicle fueling position for convenience stores based on thousand square feet, and 2) trips per thousand square feet of convenience store based on vehicle fueling positions. Since the project trip estimate varies by more than 25% depending on which rates are used, an average of both estimates was used to provide a reasonable forecast for this analysis.
7. Truck trips base on the ITE 950 (Truck Stop) subtotal and truck percentages obtained from Caltrans for I-215 near the site.
8. PCE factors are based on the County of San Bernardino Congestion Management Program (2016), Appendix B.

ATTACHMENT A

SITE PLAN

OWNER: HENRY OLIVER
(951) 232-4378
saman_bag@yahoo.com
4370 HALLMARK PARKWAY, SUITE 101,
SAN BERNARDINO, CA 92407

PROJECT ADDRESS: GLEN HELEN PKWY & CAJON BLVD.,
SAN BERNARDINO, CA 92410

ARCHITECT: ANDRESEN ARCHITECTURE INC.
17087 ORANGE WAY
FONTANA, CA 92335
(909) 355-6688
doug@architect.com

APN: 0349-182-11
ZONING: GLEN HELEN SPECIFIC PLAN
OCCUPANCY: GROUP M / B
CONSTRUCTION: TYPE V-N
FIRE SPRINKLERS: AUTOMATIC LIFE SAFETY SPRINKLER SYSTEM REQUIRED.
OWNER SHALL SUBMIT DETAIL PLANS AND HYDRAULIC CALCULATIONS TO THE FIRE
AGENCY FOR APPROVAL. MINIMUM WATER SUPPLY SHALL BE 1 ONE-INCH METER.
OBSTRUCTION SUCH AS CEILING FIXTURES THAT INTERFERE WITH SPRINKLER
OPERATION SHALL NOT BE PERMITTED

PROJECT DESCRIPTION:
PROPOSED GAS STATION CANOPIES, CONVENIENCE STORE AND DRIVE-THRU
RESTAURANT.

LOT AREA:	60,927 SQ. FT.
VACATED ROAD:	7,698 SQ. FT.
TOTAL LOT AREA:	68,562 SQ. FT.
BUILDING FOOTPRINT:	7,455 SQ. FT.
NET LOT AREA:	61,107 SQ. FT. (100%)
LANDSCAPE AREA:	11,807 SQ. FT. (20% > 15%)
HARDSCAPE AREA:	49,300 SQ. FT. (80%)
LOT COVERAGE:	10.9%
BUILDING DATA:	
C-STORE:	2,000 SQ. FT.
DRIVE-THRU RESTAURANT:	1,000 SQ. FT.
TOTAL BUILDING DATA:	3,000 SQ. FT.
TRUCK GAS CANOPY:	1,975 SQ. FT.
GAS CANOPY:	2,480 SQ. FT.

PARKING ANALYSIS:
C-STORE = 2,000 / 250 = 8 SPACES
DRIVE-THRU = 1,000 / 100 = 10 SPACES
TOTAL PARKING SPACES REQUIRED 18 SPACES

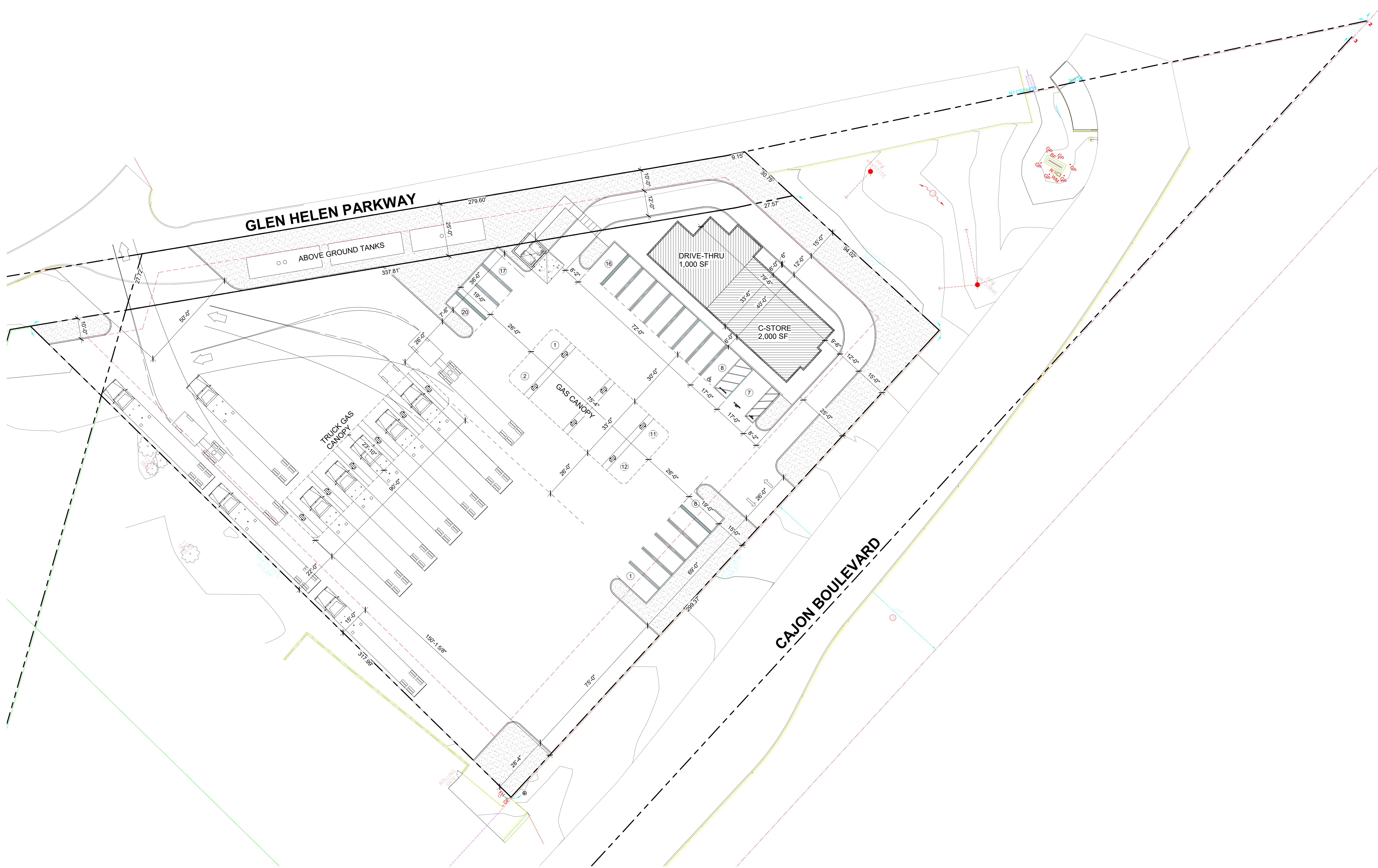
TOTAL SPACES PROVIDED	20 SPACES
(INCLUDING 1 VAN ACCESSIBLE HANDICAP SPACE)	

DESIGNATED PARKING FOR CLEAN AIR VEHICLES:
NUMBER OF SPACES BASED ON 14 NEW PARKING SPACES

COMBINATION OF LOW-EMITTING, FUEL-EFFICIENT AND CARPOOL:
REQUIRED: 1 SPACE
PROVIDED: 1 SPACE
EV CHARGING SPACES:
REQUIRED: 1 EVCS
PROVIDED: 1 EVCS

SHORT-TERM BICYCLE PARKING:
REQUIRED: 18 PARKING SPACES x 5% = 1-BIKE CAPACITY RACK
PROVIDED: 2-BIKE CAPACITY RACK

LONG-TERM BICYCLE PARKING:
REQUIRED: 18 PARKING SPACES x 5% = 1-BICYCLE
PARKING FACILITY PROVIDED: 1 (EXTERIOR LOCKER)



Site Plan
1" = 20'-0"

Proposed Glen Helen Gas Station For: Henry Oliver Glen Helen Pkwy & Cajon Blvd., San Bernardino, CA 92410		
10 May 2022		
22-4398		
Site Plan		PL

ATTACHMENT B

INTERNAL CAPTURE WORKSHEETS

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Gas Station, Convenience Market & Fast-food			Organization:	GGI
Project Location:	County of San Bernardino Glen Helen/Cajon			Performed By:	PDI
Scenario Description:	Project Trips			Date:	2022.0713
Analysis Year:	2022			Checked By:	
Analysis Period:	AM Street Peak Hour			Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	ITE 950/945	5 / 2,000	VFP / TSF	223	111	112
Restaurant	ITE 934	1,000	TSF	45	23	22
Cinema/Entertainment				0		
Residential				0		
Hotel				0		
All Other Land Uses ²				0		
				268	134	134

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

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

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		12	0	0	0
Restaurant	0	3		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	268	134	134
Internal Capture Percentage	11%	11%	11%
External Vehicle-Trips ⁵	238	119	119
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	3%	11%
Restaurant	52%	14%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

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

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

⁶Person-Trips

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

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Gas Station, Convenience Market & Fast-food			Organization:	GGI
Project Location:	County of San Bernardino Glen Helen/Cajon			Performed By:	PDI
Scenario Description:	Project Trips			Date:	2022.0713
Analysis Year:	2022			Checked By:	
Analysis Period:	PM Street Peak Hour			Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	ITE 950/945	5 / 2,000	VFP / TSF	242	124	118
Restaurant	ITE 934	1,000	TSF	33	17	16
Cinema/Entertainment				0		
Residential				0		
Hotel				0		
All Other Land Uses ²				0		
				275	141	134

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

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

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		5	0	0	0
Restaurant	0	7		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	275	141	134
Internal Capture Percentage	9%	9%	9%
External Vehicle-Trips ⁵	251	129	122
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	6%	4%
Restaurant	29%	44%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

¹ Land Use Codes (LUCs) from <i>Trip Generation Manual</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
³ Enter trips assuming no transit or non-motorized trips (as assumed in ITE <i>Trip Generation Manual</i>).
⁴ Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.
⁶ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

From: Johnson, Shawn - DPW
Sent: Wednesday, November 23, 2022 8:52 AM
To: Perrie Ilercil
Cc: Cheryl Tubbs (cheryl@lilburncorp.com); Henry Olivier
Subject: RE: Glen Helen/Cajon Gas Station TRSTY-2022-00027 Scoping Agreement Status -SEPT Submittal

Perrie,

Traffic has no comments. Please proceed with the Traffic Study.

You are listed as a contact, but not synced to the record. I will work on that so you have access.

Thank you,

Shawn Johnson
Engineering Technician IV
Department of Public Works – Traffic Division
Phone: 909-387-8186
Fax: 909-387-7809
825 E. Third Street – Room 115
San Bernardino, CA 92415-0835



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www.SBCounty.gov



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From: Perrie Ilercil <perrie@ganddini.com>
Sent: Friday, November 18, 2022 11:18 AM
To: Johnson, Shawn - DPW <Shawn.Johnson@dpw.sbcounty.gov>
Cc: Cheryl Tubbs (cheryl@lilburncorp.com) <cheryl@lilburncorp.com>; Henry Olivier <holivier@geo-cal.com>
Subject: RE: Glen Helen/Cajon Gas Station TRSTY-2022-00027 Scoping Agreement Status -SEPT Submittal
Importance: High

APPENDIX C

TRAFFIC COUNT DATA

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 01_SBC_Glen_215N AM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 1

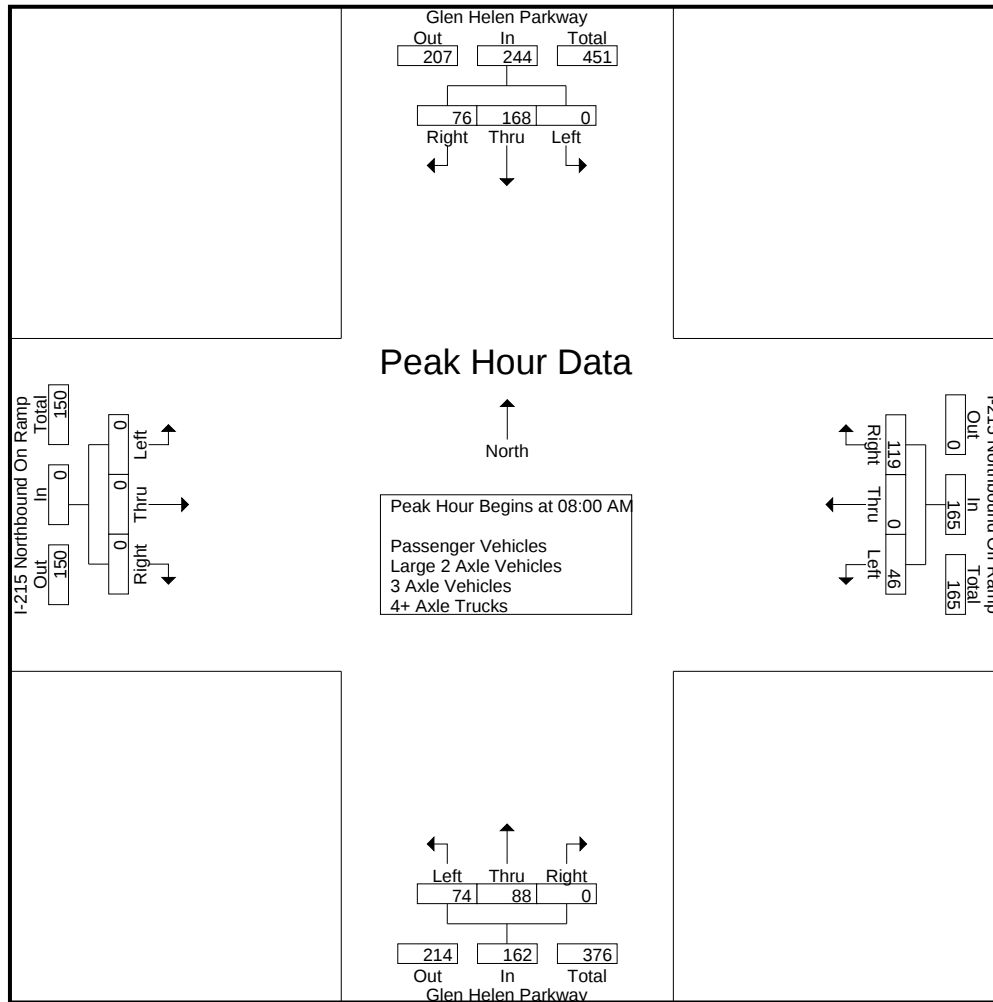
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	27	25	52	22	1	12	35	22	14	0	36	0	0	0	0	123
07:15 AM	0	29	17	46	17	0	12	29	26	14	0	40	0	0	0	0	115
07:30 AM	0	29	19	48	16	0	13	29	24	14	0	38	0	0	0	0	115
07:45 AM	0	26	16	42	22	1	16	39	10	16	0	26	0	0	0	0	107
Total	0	111	77	188	77	2	53	132	82	58	0	140	0	0	0	0	460
08:00 AM	0	35	18	53	8	0	30	38	21	26	0	47	0	0	0	0	138
08:15 AM	0	45	16	61	18	0	29	47	17	25	0	42	0	0	0	0	150
08:30 AM	0	41	23	64	13	0	37	50	19	23	0	42	0	0	0	0	156
08:45 AM	0	47	19	66	7	0	23	30	17	14	0	31	0	0	0	0	127
Total	0	168	76	244	46	0	119	165	74	88	0	162	0	0	0	0	571
Grand Total	0	279	153	432	123	2	172	297	156	146	0	302	0	0	0	0	1031
Apprch %	0	64.6	35.4		41.4	0.7	57.9		51.7	48.3	0		0	0	0		
Total %	0	27.1	14.8	41.9	11.9	0.2	16.7	28.8	15.1	14.2	0	29.3	0	0	0	0	
Passenger Vehicles	0	265	142	407	107	2	164	273	68	133	0	201	0	0	0	0	881
% Passenger Vehicles	0	95	92.8	94.2	87	100	95.3	91.9	43.6	91.1	0	66.6	0	0	0	0	85.5
Large 2 Axle Vehicles	0	11	7	18	10	0	7	17	8	11	0	19	0	0	0	0	54
% Large 2 Axle Vehicles	0	3.9	4.6	4.2	8.1	0	4.1	5.7	5.1	7.5	0	6.3	0	0	0	0	5.2
3 Axle Vehicles	0	2	3	5	2	0	1	3	10	2	0	12	0	0	0	0	20
% 3 Axle Vehicles	0	0.7	2	1.2	1.6	0	0.6	1	6.4	1.4	0	4	0	0	0	0	1.9
4+ Axle Trucks	0	1	1	2	4	0	0	4	70	0	0	70	0	0	0	0	76
% 4+ Axle Trucks	0	0.4	0.7	0.5	3.3	0	0	1.3	44.9	0	0	23.2	0	0	0	0	7.4

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	35	18	53	8	0	30	38	21	26	0	47	0	0	0	0	138
08:15 AM	0	45	16	61	18	0	29	47	17	25	0	42	0	0	0	0	150
08:30 AM	0	41	23	64	13	0	37	50	19	23	0	42	0	0	0	0	156
08:45 AM	0	47	19	66	7	0	23	30	17	14	0	31	0	0	0	0	127
Total Volume	0	168	76	244	46	0	119	165	74	88	0	162	0	0	0	0	571
% App. Total	0	68.9	31.1		27.9	0	72.1		45.7	54.3	0		0	0	0		
PHF	.000	.894	.826	.924	.639	.000	.804	.825	.881	.846	.000	.862	.000	.000	.000	.000	.915

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 01_SBC_Glen_215N AM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:45 AM				08:00 AM				07:00 AM			
+0 mins.	0	35	18	53	22	1	16	39	21	26	0	47	0	0	0	0
+15 mins.	0	45	16	61	8	0	30	38	17	25	0	42	0	0	0	0
+30 mins.	0	41	23	64	18	0	29	47	19	23	0	42	0	0	0	0
+45 mins.	0	47	19	66	13	0	37	50	17	14	0	31	0	0	0	0
Total Volume	0	168	76	244	61	1	112	174	74	88	0	162	0	0	0	0
% App. Total	0	68.9	31.1		35.1	0.6	64.4		45.7	54.3	0		0	0	0	
PHF	.000	.894	.826	.924	.693	.250	.757	.870	.881	.846	.000	.862	.000	.000	.000	.000

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 01_SBC_Glen_215N AM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 1

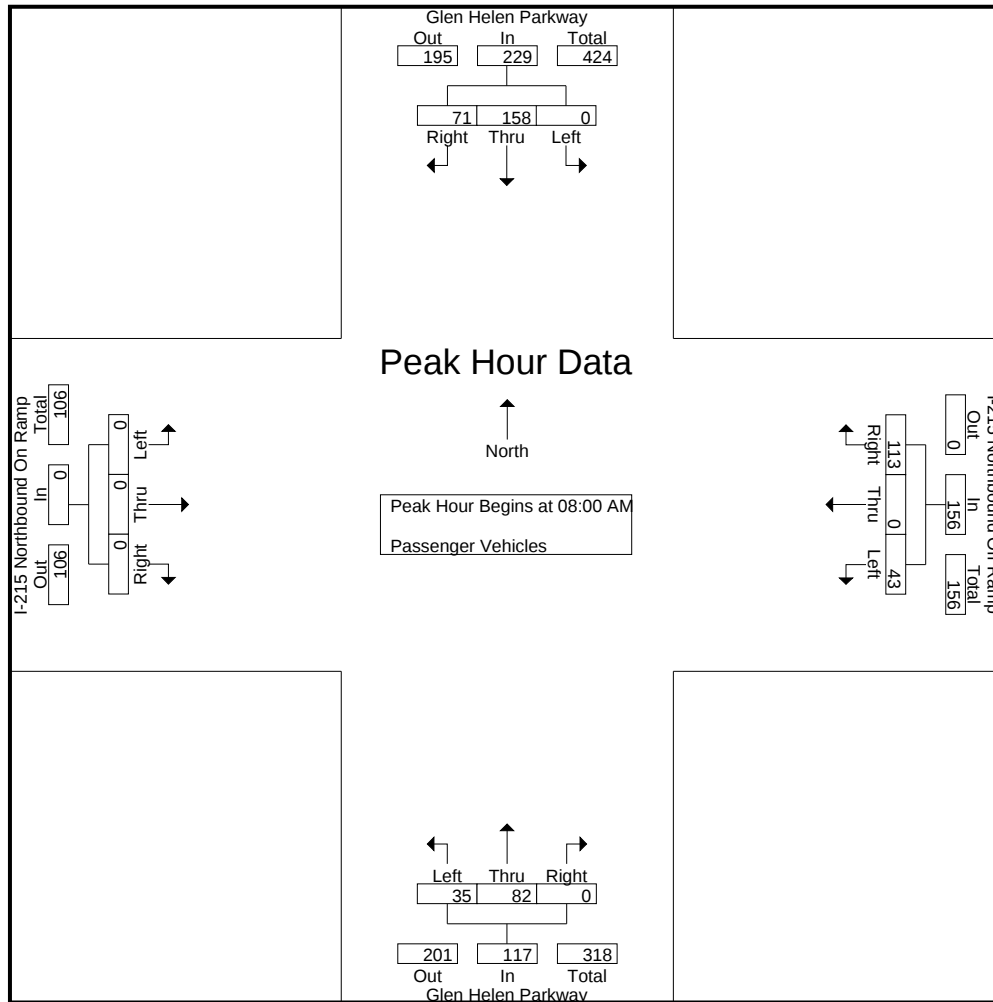
Groups Printed- Passenger Vehicles

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	25	23	48	16	1	12	29	9	12	0	21	0	0	0	0	98
07:15 AM	0	28	15	43	15	0	12	27	7	13	0	20	0	0	0	0	90
07:30 AM	0	28	19	47	14	0	11	25	10	12	0	22	0	0	0	0	94
07:45 AM	0	26	14	40	19	1	16	36	7	14	0	21	0	0	0	0	97
Total	0	107	71	178	64	2	51	117	33	51	0	84	0	0	0	0	379
08:00 AM	0	34	16	50	7	0	29	36	13	23	0	36	0	0	0	0	122
08:15 AM	0	42	14	56	16	0	28	44	9	23	0	32	0	0	0	0	132
08:30 AM	0	35	22	57	13	0	34	47	7	23	0	30	0	0	0	0	134
08:45 AM	0	47	19	66	7	0	22	29	6	13	0	19	0	0	0	0	114
Total	0	158	71	229	43	0	113	156	35	82	0	117	0	0	0	0	502
Grand Total	0	265	142	407	107	2	164	273	68	133	0	201	0	0	0	0	881
Apprch %	0	65.1	34.9		39.2	0.7	60.1		33.8	66.2	0		0	0	0		
Total %	0	30.1	16.1	46.2	12.1	0.2	18.6	31	7.7	15.1	0	22.8	0	0	0	0	

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	34	16	50	7	0	29	36	13	23	0	36	0	0	0	0	122
08:15 AM	0	42	14	56	16	0	28	44	9	23	0	32	0	0	0	0	132
08:30 AM	0	35	22	57	13	0	34	47	7	23	0	30	0	0	0	0	134
08:45 AM	0	47	19	66	7	0	22	29	6	13	0	19	0	0	0	0	114
Total Volume	0	158	71	229	43	0	113	156	35	82	0	117	0	0	0	0	502
% App. Total	0	69	31		27.6	0	72.4		29.9	70.1	0		0	0	0		
PHF	.000	.840	.807	.867	.672	.000	.831	.830	.673	.891	.000	.813	.000	.000	.000	.000	.937

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 01_SBC_Glen_215N AM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 2



Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	0	34	16	50	7	0	29	36	13	23	0	36	0	0	0	0
+15 mins.	0	42	14	56	16	0	28	44	9	23	0	32	0	0	0	0
+30 mins.	0	35	22	57	13	0	34	47	7	23	0	30	0	0	0	0
+45 mins.	0	47	19	66	7	0	22	29	6	13	0	19	0	0	0	0
Total Volume	0	158	71	229	43	0	113	156	35	82	0	117	0	0	0	0
% App. Total	0	69	31		27.6	0	72.4		29.9	70.1	0		0	0	0	
PHF	.000	.840	.807	.867	.672	.000	.831	.830	.673	.891	.000	.813	.000	.000	.000	.000

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 01_SBC_Glen_215N AM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 1

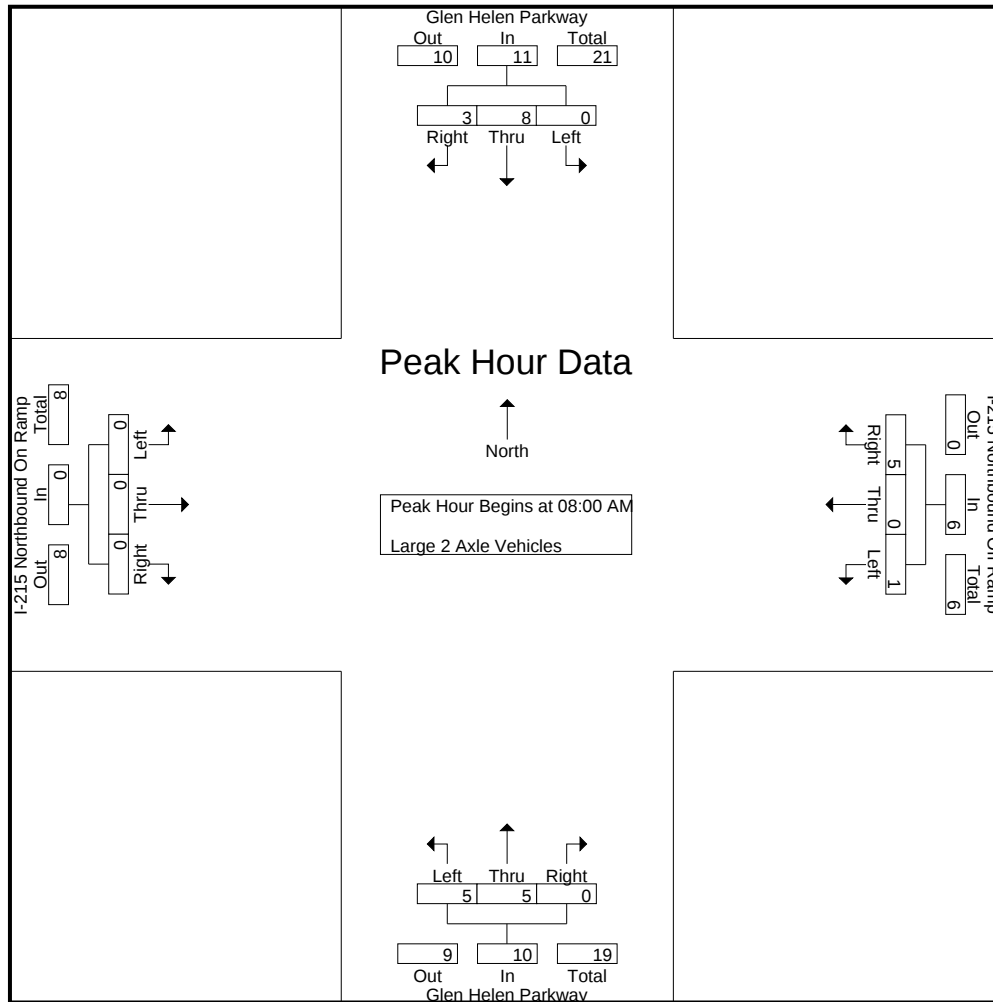
Groups Printed- Large 2 Axle Vehicles

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	1	3	4	0	0	4	1	2	0	3	0	0	0	0	10
07:15 AM	0	1	1	2	1	0	0	1	2	1	0	3	0	0	0	0	6
07:30 AM	0	0	0	0	1	0	2	3	0	1	0	1	0	0	0	0	4
07:45 AM	0	0	2	2	3	0	0	3	0	2	0	2	0	0	0	0	7
Total	0	3	4	7	9	0	2	11	3	6	0	9	0	0	0	0	27
08:00 AM	0	1	2	3	0	0	0	0	2	3	0	5	0	0	0	0	8
08:15 AM	0	1	1	2	1	0	1	2	1	1	0	2	0	0	0	0	6
08:30 AM	0	6	0	6	0	0	3	3	2	0	0	2	0	0	0	0	11
08:45 AM	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	2
Total	0	8	3	11	1	0	5	6	5	5	0	10	0	0	0	0	27
Grand Total	0	11	7	18	10	0	7	17	8	11	0	19	0	0	0	0	54
Apprch %	0	61.1	38.9		58.8	0	41.2		42.1	57.9	0		0	0	0		
Total %	0	20.4	13	33.3	18.5	0	13	31.5	14.8	20.4	0	35.2	0	0	0	0	

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	1	2	3	0	0	0	0	2	3	0	5	0	0	0	0	8
08:15 AM	0	1	1	2	1	0	1	2	1	1	0	2	0	0	0	0	6
08:30 AM	0	6	0	6	0	0	3	3	2	0	0	2	0	0	0	0	11
08:45 AM	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	2
Total Volume	0	8	3	11	1	0	5	6	5	5	0	10	0	0	0	0	27
% App. Total	0	72.7	27.3		16.7	0	83.3		50	50	0		0	0	0		
PHF	.000	.333	.375	.458	.250	.000	.417	.500	.625	.417	.000	.500	.000	.000	.000	.000	.614

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 01_SBC_Glen_215N AM
Site Code : 22523027
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Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	0	1	2	3	0	0	0	0	2	3	0	5	0	0	0	0
+15 mins.	0	1	1	2	1	0	1	2	1	1	0	2	0	0	0	0
+30 mins.	0	6	0	6	0	0	3	3	2	0	0	2	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0
Total Volume	0	8	3	11	1	0	5	6	5	5	0	10	0	0	0	0
% App. Total	0	72.7	27.3		16.7	0	83.3		50	50	0		0	0	0	
PHF	.000	.333	.375	.458	.250	.000	.417	.500	.625	.417	.000	.500	.000	.000	.000	.000

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 01_SBC_Glen_215N AM
Site Code : 22523027
Start Date : 1/11/2023
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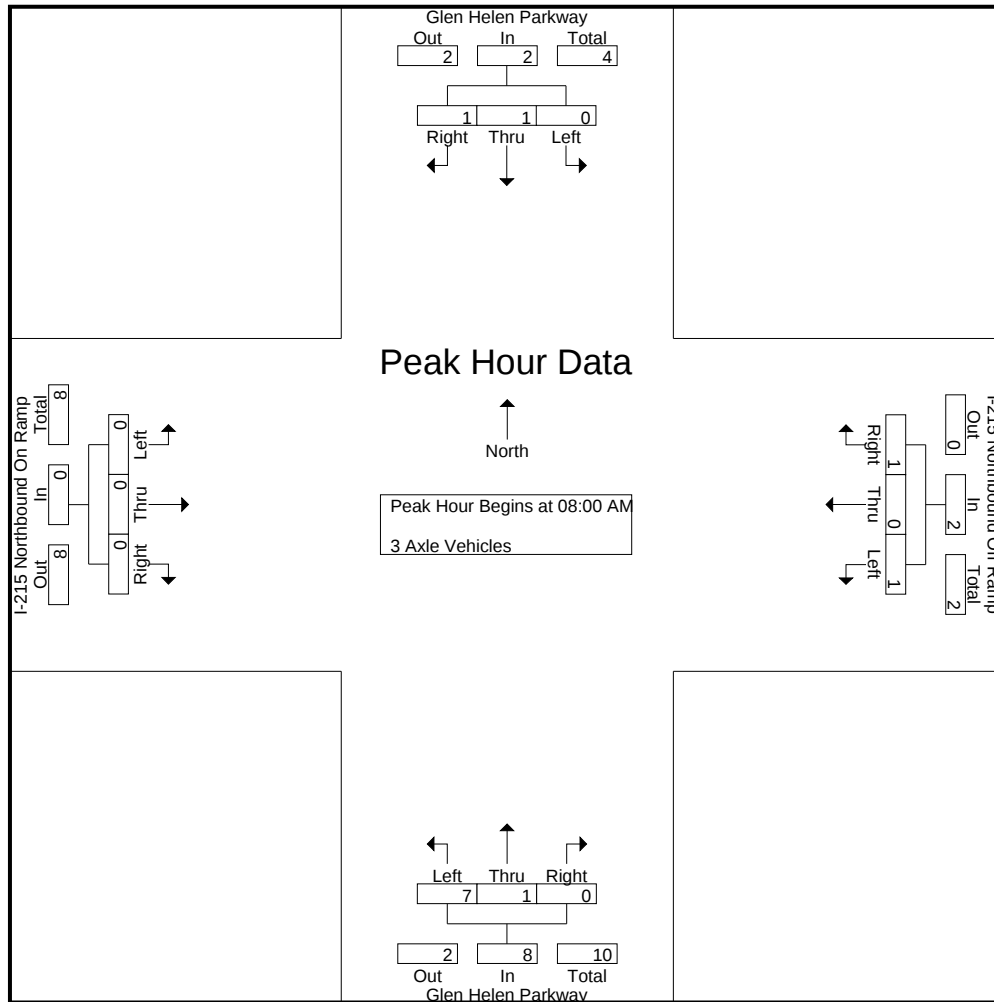
Groups Printed- 3 Axle Vehicles

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	1	1	0	0	0	0	2	0	0	2	0	0	0	0	3
07:15 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	1	0	1	1	0	0	1	0	1	0	1	0	0	0	0	3
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	1	2	3	1	0	0	1	3	1	0	4	0	0	0	0	8
08:00 AM	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	2
08:15 AM	0	1	0	1	1	0	0	1	0	1	0	1	0	0	0	0	3
08:30 AM	0	0	1	1	0	0	0	0	3	0	0	3	0	0	0	0	4
08:45 AM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	3
Total	0	1	1	2	1	0	1	2	7	1	0	8	0	0	0	0	12
Grand Total	0	2	3	5	2	0	1	3	10	2	0	12	0	0	0	0	20
Apprch %	0	40	60		66.7	0	33.3		83.3	16.7	0		0	0	0		
Total %	0	10	15	25	10	0	5	15	50	10	0	60	0	0	0	0	

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	2
08:15 AM	0	1	0	1	1	0	0	1	0	1	0	1	0	0	0	0	3
08:30 AM	0	0	1	1	0	0	0	0	3	0	0	3	0	0	0	0	4
08:45 AM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	3
Total Volume	0	1	1	2	1	0	1	2	7	1	0	8	0	0	0	0	12
% App. Total	0	50	50		50	0	50		87.5	12.5	0		0	0	0		
PHF	.000	.250	.250	.500	.250	.000	.250	.500	.583	.250	.000	.667	.000	.000	.000	.000	.750

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 01_SBC_Glen_215N AM
Site Code : 22523027
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Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0
+15 mins.	0	1	0	1	1	0	0	1	1	0	1	0	1	0	0	0
+30 mins.	0	0	1	1	0	0	0	0	3	0	0	0	3	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0
Total Volume	0	1	1	2	1	0	1	2	7	1	0	8	0	0	0	0
% App. Total	0	50	50		50	0	50		87.5	12.5	0		0	0	0	
PHF	.000	.250	.250	.500	.250	.000	.250	.500	.583	.250	.000	.667	.000	.000	.000	.000

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 01_SBC_Glen_215N AM
Site Code : 22523027
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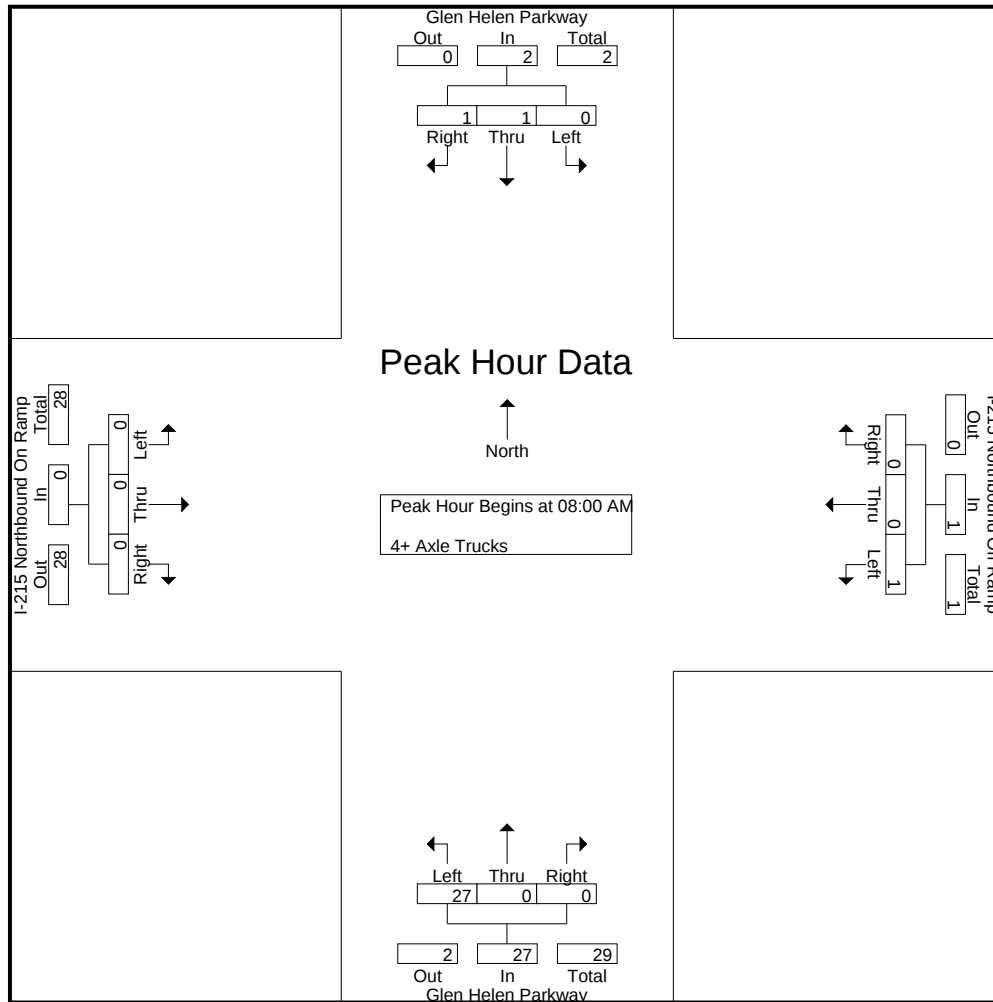
Groups Printed- 4+ Axle Trucks

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	2	0	0	2	10	0	0	10	0	0	0	0	12
07:15 AM	0	0	0	0	1	0	0	1	17	0	0	17	0	0	0	0	18
07:30 AM	0	0	0	0	0	0	0	0	14	0	0	14	0	0	0	0	14
07:45 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	2
Total	0	0	0	0	3	0	0	3	43	0	0	43	0	0	0	0	46
08:00 AM	0	0	0	0	1	0	0	1	5	0	0	5	0	0	0	0	6
08:15 AM	0	1	1	2	0	0	0	0	7	0	0	7	0	0	0	0	9
08:30 AM	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	7
08:45 AM	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0	8
Total	0	1	1	2	1	0	0	1	27	0	0	27	0	0	0	0	30
Grand Total	0	1	1	2	4	0	0	4	70	0	0	70	0	0	0	0	76
Apprch %	0	50	50		100	0	0		100	0	0		0	0	0		
Total %	0	1.3	1.3	2.6	5.3	0	0	5.3	92.1	0	0	92.1	0	0	0	0	

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	1	0	0	1	5	0	0	5	0	0	0	0	6
08:15 AM	0	1	1	2	0	0	0	0	7	0	0	7	0	0	0	0	9
08:30 AM	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	7
08:45 AM	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0	8
Total Volume	0	1	1	2	1	0	0	1	27	0	0	27	0	0	0	0	30
% App. Total	0	50	50		100	0	0		100	0	0		0	0	0		
PHF	.000	.250	.250	.250	.250	.000	.000	.250	.844	.000	.000	.844	.000	.000	.000	.000	.833

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

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Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	0	0	0	0	1	0	0	1	5	0	0	5	0	0	0	0
+15 mins.	0	1	1	2	0	0	0	0	7	0	0	7	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0
Total Volume	0	1	1	2	1	0	0	1	27	0	0	27	0	0	0	0
% App. Total	0	50	50		100	0	0		100	0	0		0	0	0	
PHF	.000	.250	.250	.250	.250	.000	.000	.250	.844	.000	.000	.844	.000	.000	.000	.000

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 01_SBC_Glen_215N PM
Site Code : 22523027
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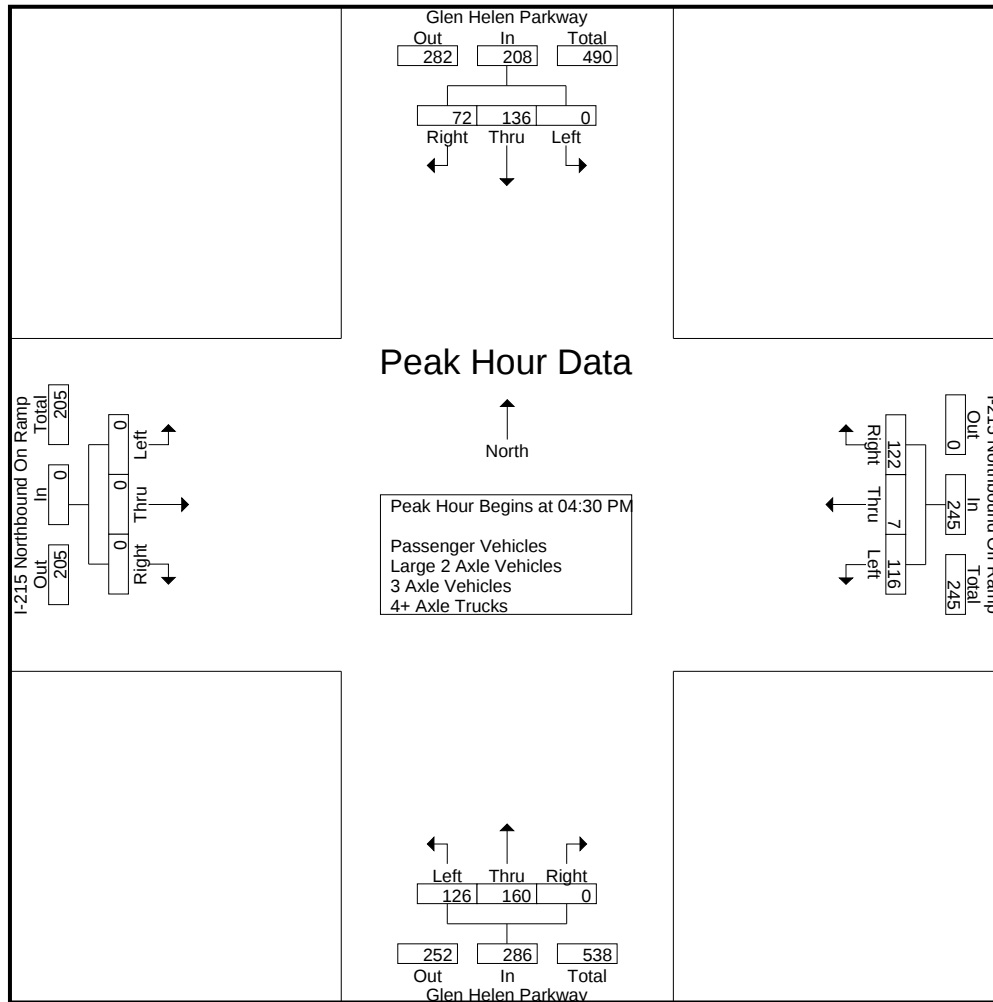
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	22	20	42	23	0	32	55	26	41	0	67	0	0	0	0	164
04:15 PM	0	25	13	38	27	0	37	64	31	36	0	67	0	0	0	0	169
04:30 PM	0	40	20	60	22	1	27	50	41	44	0	85	0	0	0	0	195
04:45 PM	0	41	12	53	33	4	43	80	34	33	0	67	0	0	0	0	200
Total	0	128	65	193	105	5	139	249	132	154	0	286	0	0	0	0	728
05:00 PM	0	27	25	52	28	2	29	59	26	37	0	63	0	0	0	0	174
05:15 PM	0	28	15	43	33	0	23	56	25	46	0	71	0	0	0	0	170
05:30 PM	0	31	18	49	22	1	34	57	32	36	0	68	0	0	0	0	174
05:45 PM	0	20	18	38	44	0	35	79	29	28	0	57	0	0	0	0	174
Total	0	106	76	182	127	3	121	251	112	147	0	259	0	0	0	0	692
Grand Total	0	234	141	375	232	8	260	500	244	301	0	545	0	0	0	0	1420
Apprch %	0	62.4	37.6		46.4	1.6	52		44.8	55.2	0		0	0	0		
Total %	0	16.5	9.9	26.4	16.3	0.6	18.3	35.2	17.2	21.2	0	38.4	0	0	0	0	
Passenger Vehicles	0	225	140	365	218	8	253	479	196	294	0	490	0	0	0	0	1334
% Passenger Vehicles	0	96.2	99.3	97.3	94	100	97.3	95.8	80.3	97.7	0	89.9	0	0	0	0	93.9
Large 2 Axle Vehicles	0	8	1	9	10	0	7	17	8	6	0	14	0	0	0	0	40
% Large 2 Axle Vehicles	0	3.4	0.7	2.4	4.3	0	2.7	3.4	3.3	2	0	2.6	0	0	0	0	2.8
3 Axle Vehicles	0	1	0	1	0	0	0	0	6	1	0	7	0	0	0	0	8
% 3 Axle Vehicles	0	0.4	0	0.3	0	0	0	0	2.5	0.3	0	1.3	0	0	0	0	0.6
4+ Axle Trucks	0	0	0	0	4	0	0	4	34	0	0	34	0	0	0	0	38
% 4+ Axle Trucks	0	0	0	0	1.7	0	0	0.8	13.9	0	0	6.2	0	0	0	0	2.7

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	40	20	60	22	1	27	50	41	44	0	85	0	0	0	0	195
04:45 PM	0	41	12	53	33	4	43	80	34	33	0	67	0	0	0	0	200
05:00 PM	0	27	25	52	28	2	29	59	26	37	0	63	0	0	0	0	174
05:15 PM	0	28	15	43	33	0	23	56	25	46	0	71	0	0	0	0	170
Total Volume	0	136	72	208	116	7	122	245	126	160	0	286	0	0	0	0	739
% App. Total	0	65.4	34.6		47.3	2.9	49.8		44.1	55.9	0		0	0	0		
PHF	.000	.829	.720	.867	.879	.438	.709	.766	.768	.870	.000	.841	.000	.000	.000	.000	.924

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 01_SBC_Glen_215N PM
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:15 PM				04:00 PM				04:00 PM			
+0 mins.	0	40	20	60	27	0	37	64	26	41	0	67	0	0	0	0
+15 mins.	0	41	12	53	22	1	27	50	31	36	0	67	0	0	0	0
+30 mins.	0	27	25	52	33	4	43	80	41	44	0	85	0	0	0	0
+45 mins.	0	28	15	43	28	2	29	59	34	33	0	67	0	0	0	0
Total Volume	0	136	72	208	110	7	136	253	132	154	0	286	0	0	0	0
% App. Total	0	65.4	34.6		43.5	2.8	53.8		46.2	53.8	0		0	0	0	
PHF	.000	.829	.720	.867	.833	.438	.791	.791	.805	.875	.000	.841	.000	.000	.000	.000

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 01_SBC_Glen_215N PM
Site Code : 22523027
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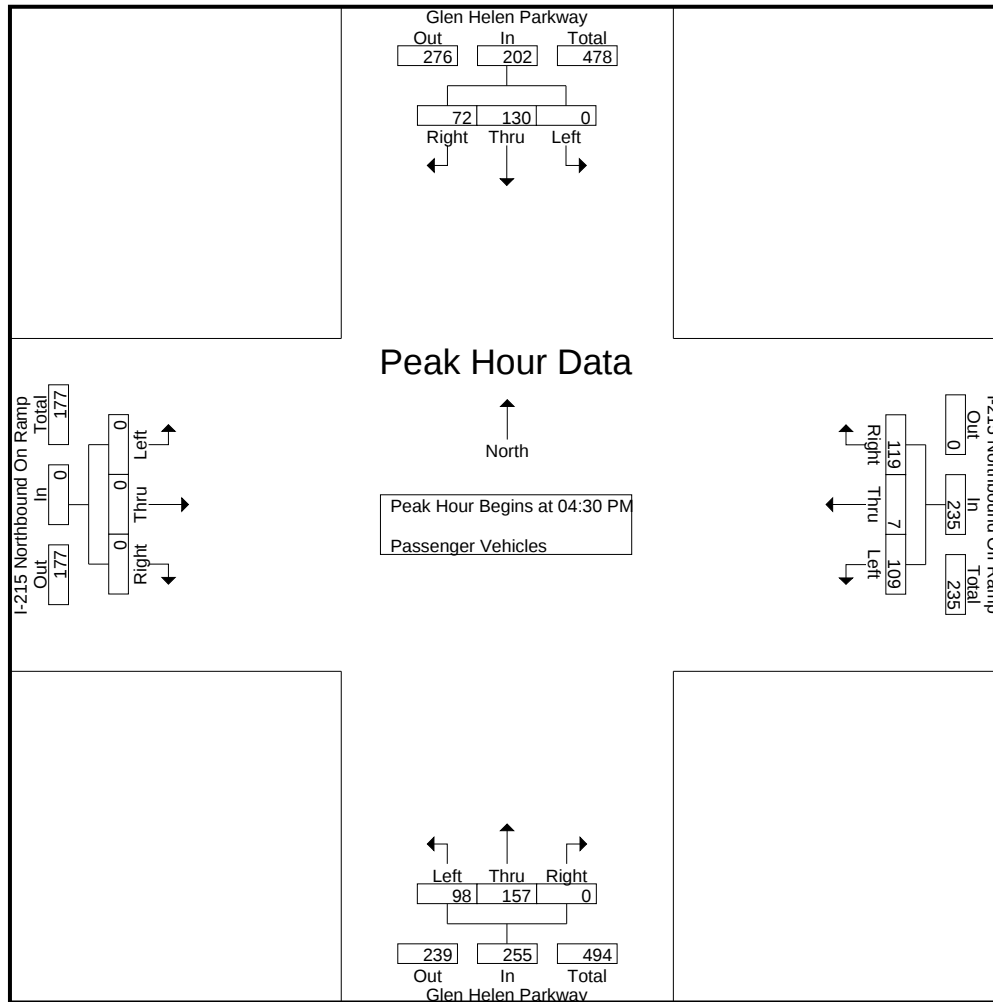
Groups Printed- Passenger Vehicles

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	21	20	41	23	0	30	53	20	39	0	59	0	0	0	0	153
04:15 PM	0	24	12	36	27	0	36	63	26	35	0	61	0	0	0	0	160
04:30 PM	0	37	20	57	20	1	24	45	31	43	0	74	0	0	0	0	176
04:45 PM	0	38	12	50	33	4	43	80	23	32	0	55	0	0	0	0	185
Total	0	120	64	184	103	5	133	241	100	149	0	249	0	0	0	0	674
05:00 PM	0	27	25	52	24	2	29	55	23	37	0	60	0	0	0	0	167
05:15 PM	0	28	15	43	32	0	23	55	21	45	0	66	0	0	0	0	164
05:30 PM	0	30	18	48	21	1	33	55	29	35	0	64	0	0	0	0	167
05:45 PM	0	20	18	38	38	0	35	73	23	28	0	51	0	0	0	0	162
Total	0	105	76	181	115	3	120	238	96	145	0	241	0	0	0	0	660
Grand Total	0	225	140	365	218	8	253	479	196	294	0	490	0	0	0	0	1334
Apprch %	0	61.6	38.4		45.5	1.7	52.8		40	60	0		0	0	0		
Total %	0	16.9	10.5	27.4	16.3	0.6	19	35.9	14.7	22	0	36.7	0	0	0	0	

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	37	20	57	20	1	24	45	31	43	0	74	0	0	0	0	176
04:45 PM	0	38	12	50	33	4	43	80	23	32	0	55	0	0	0	0	185
05:00 PM	0	27	25	52	24	2	29	55	23	37	0	60	0	0	0	0	167
05:15 PM	0	28	15	43	32	0	23	55	21	45	0	66	0	0	0	0	164
Total Volume	0	130	72	202	109	7	119	235	98	157	0	255	0	0	0	0	692
% App. Total	0	64.4	35.6		46.4	3	50.6		38.4	61.6	0		0	0	0		
PHF	.000	.855	.720	.886	.826	.438	.692	.734	.790	.872	.000	.861	.000	.000	.000	.000	.935

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	37	20	57	20	1	24	45	31	43	0	74	0	0	0	0
+15 mins.	0	38	12	50	33	4	43	80	23	32	0	55	0	0	0	0
+30 mins.	0	27	25	52	24	2	29	55	23	37	0	60	0	0	0	0
+45 mins.	0	28	15	43	32	0	23	55	21	45	0	66	0	0	0	0
Total Volume	0	130	72	202	109	7	119	235	98	157	0	255	0	0	0	0
% App. Total	0	64.4	35.6		46.4	3	50.6		38.4	61.6	0		0	0	0	
PHF	.000	.855	.720	.886	.826	.438	.692	.734	.790	.872	.000	.861	.000	.000	.000	.000

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 01_SBC_Glen_215N PM
Site Code : 22523027
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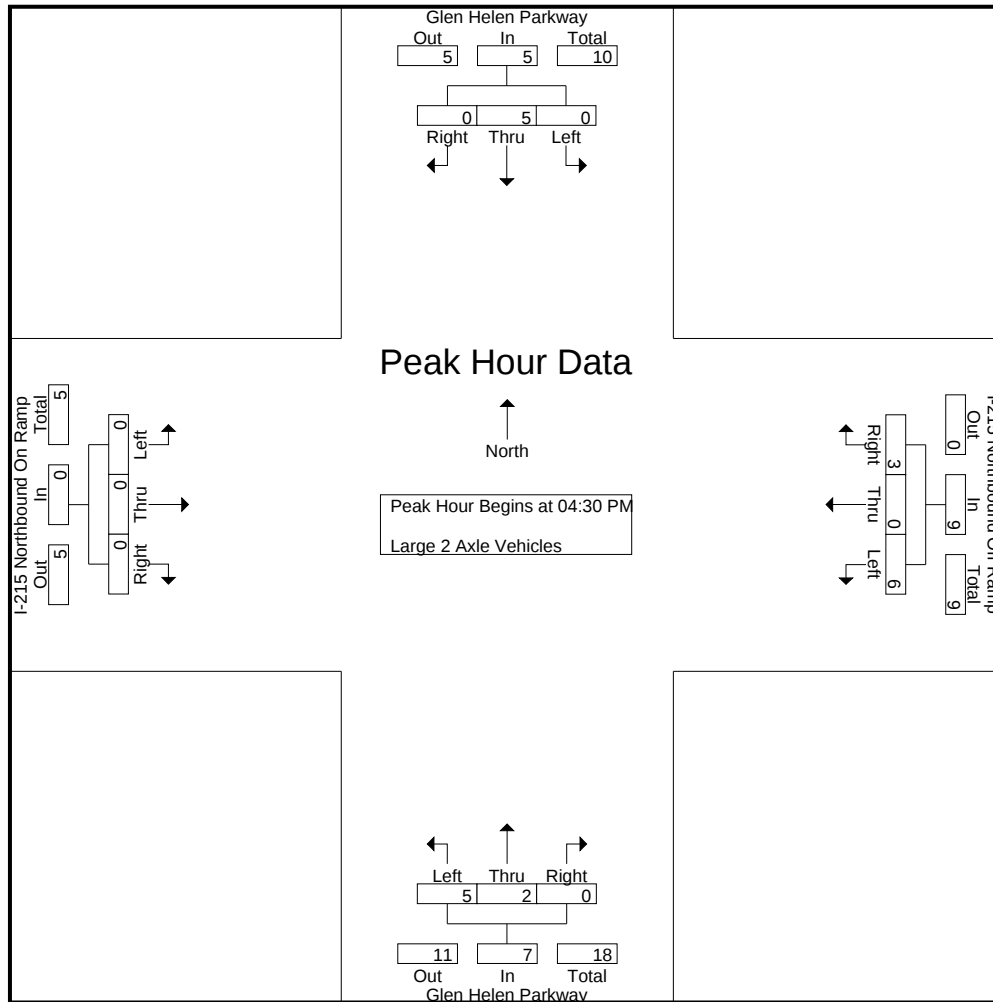
Groups Printed- Large 2 Axle Vehicles

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	0	1	0	0	2	2	0	2	0	2	0	0	0	0	5
04:15 PM	0	1	1	2	0	0	1	1	1	1	0	2	0	0	0	0	5
04:30 PM	0	3	0	3	1	0	3	4	3	0	0	3	0	0	0	0	10
04:45 PM	0	2	0	2	0	0	0	0	2	1	0	3	0	0	0	0	5
Total	0	7	1	8	1	0	6	7	6	4	0	10	0	0	0	0	25
05:00 PM	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	4
05:15 PM	0	0	0	0	1	0	0	1	0	1	0	1	0	0	0	0	2
05:30 PM	0	1	0	1	1	0	1	2	1	1	0	2	0	0	0	0	5
05:45 PM	0	0	0	0	3	0	0	3	1	0	0	1	0	0	0	0	4
Total	0	1	0	1	9	0	1	10	2	2	0	4	0	0	0	0	15
Grand Total	0	8	1	9	10	0	7	17	8	6	0	14	0	0	0	0	40
Apprch %	0	88.9	11.1		58.8	0	41.2		57.1	42.9	0		0	0	0		
Total %	0	20	2.5	22.5	25	0	17.5	42.5	20	15	0	35	0	0	0	0	

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	3	0	3	1	0	3	4	3	0	0	3	0	0	0	0	10
04:45 PM	0	2	0	2	0	0	0	0	2	1	0	3	0	0	0	0	5
05:00 PM	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	4
05:15 PM	0	0	0	0	1	0	0	1	0	1	0	1	0	0	0	0	2
Total Volume	0	5	0	5	6	0	3	9	5	2	0	7	0	0	0	0	21
% App. Total	0	100	0		66.7	0	33.3		71.4	28.6	0		0	0	0		
PHF	.000	.417	.000	.417	.375	.000	.250	.563	.417	.500	.000	.583	.000	.000	.000	.000	.525

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	3	0	3	1	0	3	4	3	0	0	3	0	0	0	0
+15 mins.	0	2	0	2	0	0	0	0	2	1	0	3	0	0	0	0
+30 mins.	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	1	0	0	1	0	1	0	1	0	0	0	0
Total Volume	0	5	0	5	6	0	3	9	5	2	0	7	0	0	0	0
% App. Total	0	100	0		66.7	0	33.3		71.4	28.6	0		0	0	0	
PHF	.000	.417	.000	.417	.375	.000	.250	.563	.417	.500	.000	.583	.000	.000	.000	.000

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 01_SBC_Glen_215N PM
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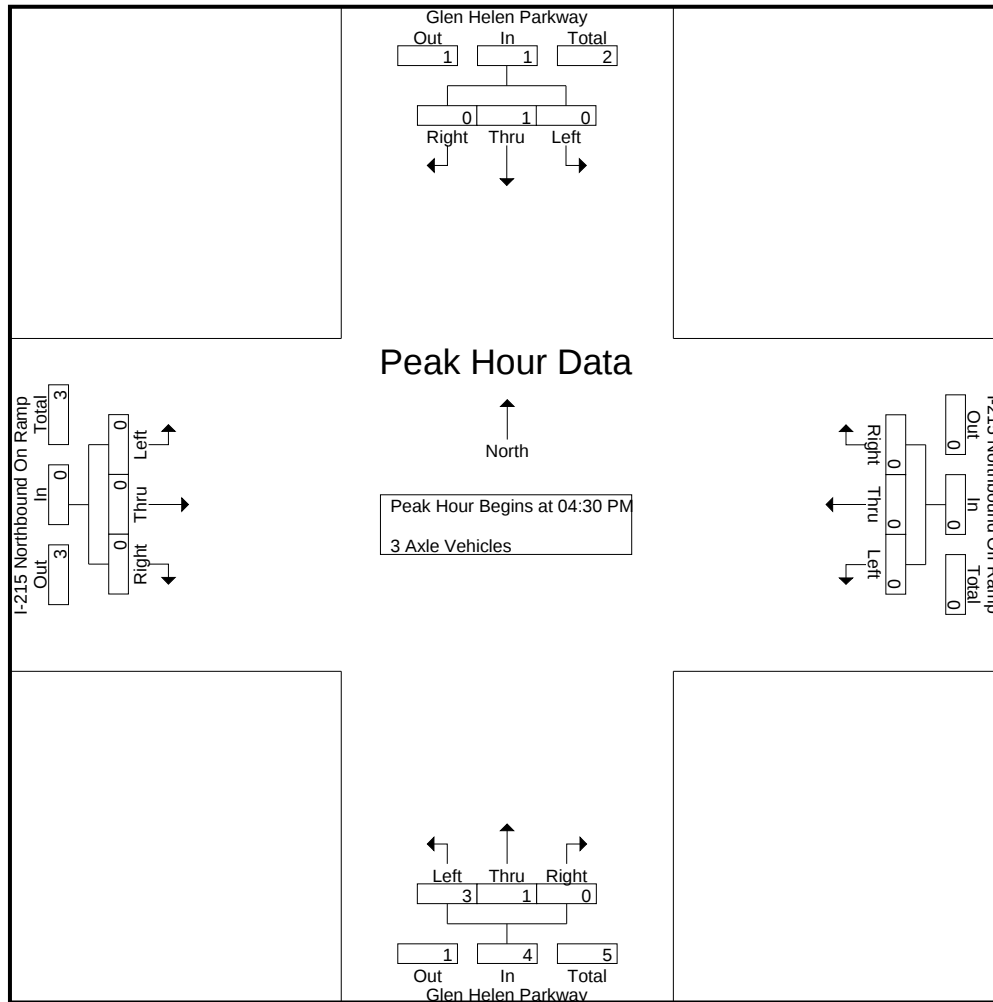
Groups Printed- 3 Axle Vehicles

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	2
04:45 PM	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	2
Total	0	1	0	1	0	0	0	0	4	1	0	5	0	0	0	0	6
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	2
Grand Total	0	1	0	1	0	0	0	0	6	1	0	7	0	0	0	0	8
Apprch %	0	100	0		0	0	0		85.7	14.3	0		0	0	0		
Total %	0	12.5	0	12.5	0	0	0	0	75	12.5	0	87.5	0	0	0	0	

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	2
04:45 PM	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	0	1	0	1	0	0	0	0	3	1	0	4	0	0	0	0	5
% App. Total	0	100	0		0	0	0		75	25	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.750	.250	.000	.500	.000	.000	.000	.000	.625

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0
+15 mins.	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	3	1	0	4	0	0	0	0
% App. Total	0	100	0		0	0	0		75	25	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.750	.250	.000	.500	.000	.000	.000	.000

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

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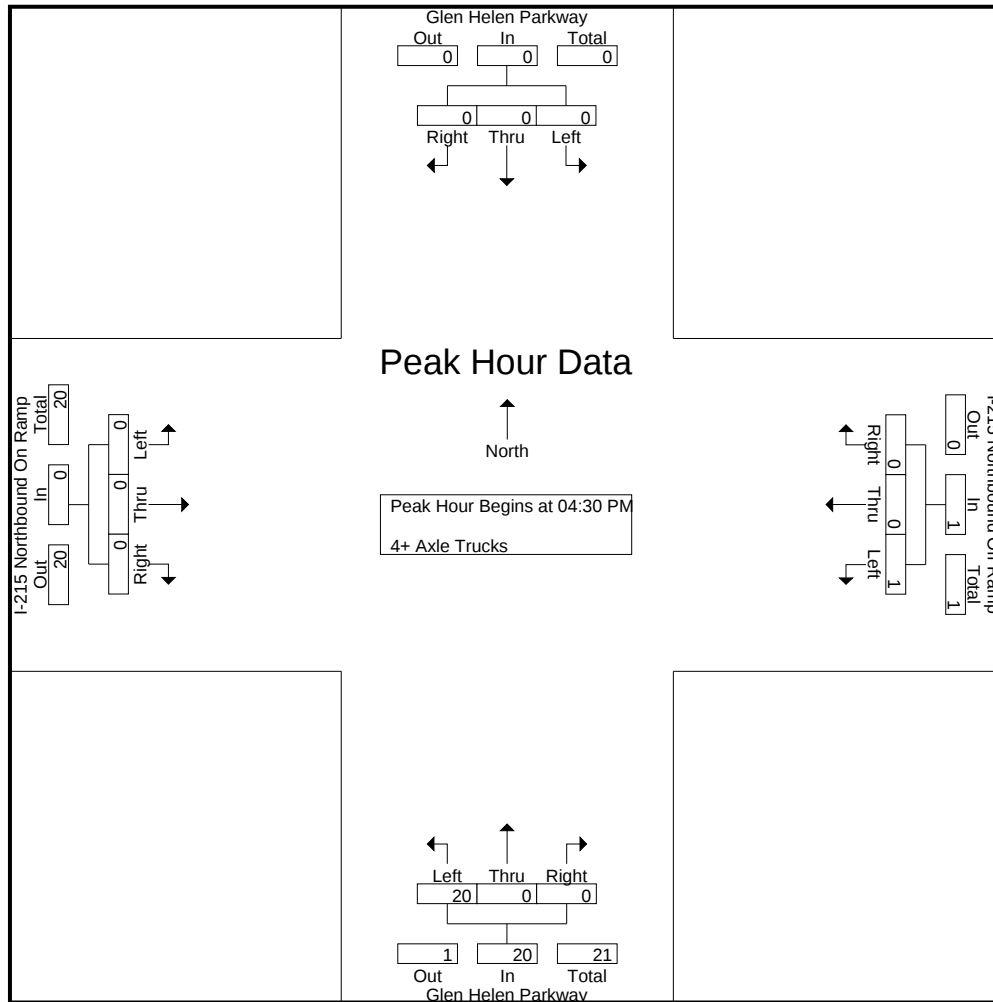
Groups Printed- 4+ Axle Trucks

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	4
04:15 PM	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	4
04:30 PM	0	0	0	0	1	0	0	1	6	0	0	6	0	0	0	0	7
04:45 PM	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0	8
Total	0	0	0	0	1	0	0	1	22	0	0	22	0	0	0	0	23
05:00 PM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	2
05:45 PM	0	0	0	0	3	0	0	3	4	0	0	4	0	0	0	0	7
Total	0	0	0	0	3	0	0	3	12	0	0	12	0	0	0	0	15
Grand Total	0	0	0	0	4	0	0	4	34	0	0	34	0	0	0	0	38
Apprch %	0	0	0		100	0	0		100	0	0		0	0	0		
Total %	0	0	0	0	10.5	0	0	10.5	89.5	0	0	89.5	0	0	0	0	

	Glen Helen Parkway Southbound				I-215 Northbound Off Ramp Westbound				Glen Helen Parkway Northbound				I-215 Northbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	1	0	0	1	6	0	0	6	0	0	0	0	7
04:45 PM	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0	8
05:00 PM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	3
Total Volume	0	0	0	0	1	0	0	1	20	0	0	20	0	0	0	0	21
% App. Total	0	0	0		100	0	0		100	0	0		0	0	0		
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.625	.000	.000	.625	.000	.000	.000	.000	.656

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Northbound Ramps
Weather: Clear

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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	1	0	0	1	6	0	0	6	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0
Total Volume	0	0	0	0	1	0	0	1	20	0	0	20	0	0	0	0
% App. Total	0	0	0	0	100	0	0	100	100	0	0	100	0	0	0	0
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.625	.000	.000	.625	.000	.000	.000	.000

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 02_SBC_Glen_215S AM
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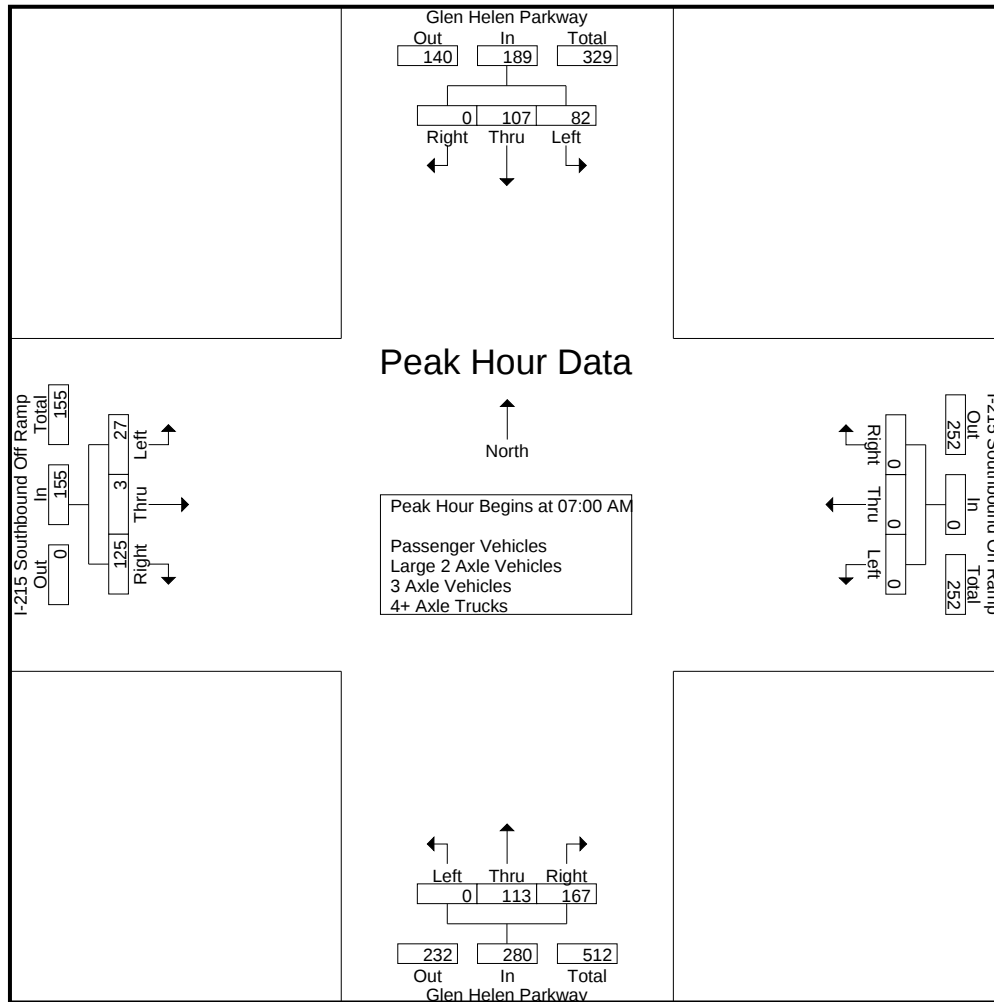
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	24	25	0	49	0	0	0	0	0	29	50	79	9	1	23	33	161
07:15 AM	20	27	0	47	0	0	0	0	0	34	35	69	4	2	33	39	155
07:30 AM	23	22	0	45	0	0	0	0	0	29	51	80	8	0	31	39	164
07:45 AM	15	33	0	48	0	0	0	0	0	21	31	52	6	0	38	44	144
Total	82	107	0	189	0	0	0	0	0	113	167	280	27	3	125	155	624
08:00 AM	24	20	0	44	0	0	0	0	0	32	17	49	14	2	32	48	141
08:15 AM	31	32	0	63	0	0	0	0	0	32	22	54	9	0	23	32	149
08:30 AM	30	23	0	53	0	0	0	0	0	33	14	47	11	0	34	45	145
08:45 AM	32	23	0	55	0	0	0	0	0	23	11	34	9	0	31	40	129
Total	117	98	0	215	0	0	0	0	0	120	64	184	43	2	120	165	564
Grand Total	199	205	0	404	0	0	0	0	0	233	231	464	70	5	245	320	1188
Apprch %	49.3	50.7	0		0	0	0		0	50.2	49.8		21.9	1.6	76.6		
Total %	16.8	17.3	0	34	0	0	0	0	0	19.6	19.4	39.1	5.9	0.4	20.6	26.9	
Passenger Vehicles	182	182	0	364	0	0	0	0	0	136	204	340	59	5	173	237	941
% Passenger Vehicles	91.5	88.8	0	90.1	0	0	0	0	0	58.4	88.3	73.3	84.3	100	70.6	74.1	79.2
Large 2 Axle Vehicles	15	15	0	30	0	0	0	0	0	17	12	29	8	0	14	22	81
% Large 2 Axle Vehicles	7.5	7.3	0	7.4	0	0	0	0	0	7.3	5.2	6.2	11.4	0	5.7	6.9	6.8
3 Axle Vehicles	1	5	0	6	0	0	0	0	0	11	3	14	0	0	18	18	38
% 3 Axle Vehicles	0.5	2.4	0	1.5	0	0	0	0	0	4.7	1.3	3	0	0	7.3	5.6	3.2
4+ Axle Trucks	1	3	0	4	0	0	0	0	0	69	12	81	3	0	40	43	128
% 4+ Axle Trucks	0.5	1.5	0	1	0	0	0	0	0	29.6	5.2	17.5	4.3	0	16.3	13.4	10.8

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	24	25	0	49	0	0	0	0	0	29	50	79	9	1	23	33	161
07:15 AM	20	27	0	47	0	0	0	0	0	34	35	69	4	2	33	39	155
07:30 AM	23	22	0	45	0	0	0	0	0	29	51	80	8	0	31	39	164
07:45 AM	15	33	0	48	0	0	0	0	0	21	31	52	6	0	38	44	144
Total Volume	82	107	0	189	0	0	0	0	0	113	167	280	27	3	125	155	624
% App. Total	43.4	56.6	0		0	0	0		0	40.4	59.6		17.4	1.9	80.6		
PHF	.854	.811	.000	.964	.000	.000	.000	.000	.000	.831	.819	.875	.750	.375	.822	.881	.951

City of San Bernardino
N/S: Glen Helen Parkway
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Weather: Clear

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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:00 AM				07:00 AM				07:15 AM			
+0 mins.	24	20	0	44	0	0	0	0	0	29	50	79	4	2	33	39
+15 mins.	31	32	0	63	0	0	0	0	0	34	35	69	8	0	31	39
+30 mins.	30	23	0	53	0	0	0	0	0	29	51	80	6	0	38	44
+45 mins.	32	23	0	55	0	0	0	0	0	21	31	52	14	2	32	48
Total Volume	117	98	0	215	0	0	0	0	0	113	167	280	32	4	134	170
% App. Total	54.4	45.6	0		0	0	0		0	40.4	59.6		18.8	2.4	78.8	
PHF	.914	.766	.000	.853	.000	.000	.000	.000	.000	.831	.819	.875	.571	.500	.882	.885

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 02_SBC_Glen_215S AM
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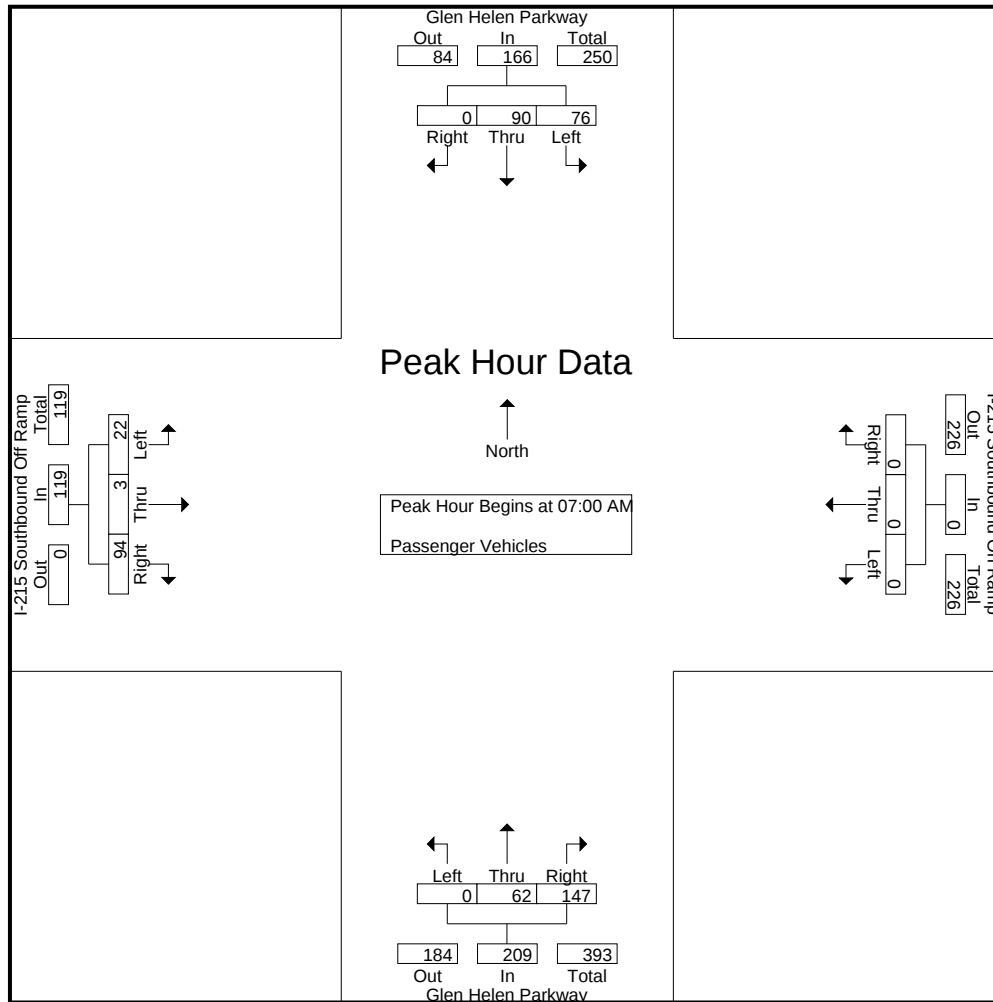
Groups Printed- Passenger Vehicles

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	22	18	0	40	0	0	0	0	0	14	46	60	9	1	18	28	128
07:15 AM	19	24	0	43	0	0	0	0	0	16	33	49	3	2	27	32	124
07:30 AM	21	19	0	40	0	0	0	0	0	15	43	58	5	0	26	31	129
07:45 AM	14	29	0	43	0	0	0	0	0	17	25	42	5	0	23	28	113
Total	76	90	0	166	0	0	0	0	0	62	147	209	22	3	94	119	494
08:00 AM	24	18	0	42	0	0	0	0	0	21	15	36	12	2	21	35	113
08:15 AM	28	30	0	58	0	0	0	0	0	23	20	43	7	0	15	22	123
08:30 AM	22	21	0	43	0	0	0	0	0	20	14	34	9	0	24	33	110
08:45 AM	32	23	0	55	0	0	0	0	0	10	8	18	9	0	19	28	101
Total	106	92	0	198	0	0	0	0	0	74	57	131	37	2	79	118	447
Grand Total	182	182	0	364	0	0	0	0	0	136	204	340	59	5	173	237	941
Apprch %	50	50	0		0	0	0		0	40	60		24.9	2.1	73		
Total %	19.3	19.3	0	38.7	0	0	0	0	0	14.5	21.7	36.1	6.3	0.5	18.4	25.2	

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	22	18	0	40	0	0	0	0	0	14	46	60	9	1	18	28	128
07:15 AM	19	24	0	43	0	0	0	0	0	16	33	49	3	2	27	32	124
07:30 AM	21	19	0	40	0	0	0	0	0	15	43	58	5	0	26	31	129
07:45 AM	14	29	0	43	0	0	0	0	0	17	25	42	5	0	23	28	113
Total Volume	76	90	0	166	0	0	0	0	0	62	147	209	22	3	94	119	494
% App. Total	45.8	54.2	0		0	0	0		0	29.7	70.3		18.5	2.5	79		
PHF	.864	.776	.000	.965	.000	.000	.000	.000	.000	.912	.799	.871	.611	.375	.870	.930	.957

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	22	18	0	40	0	0	0	0	0	14	46	60	9	1	18	28
+15 mins.	19	24	0	43	0	0	0	0	0	16	33	49	3	2	27	32
+30 mins.	21	19	0	40	0	0	0	0	0	15	43	58	5	0	26	31
+45 mins.	14	29	0	43	0	0	0	0	0	17	25	42	5	0	23	28
Total Volume	76	90	0	166	0	0	0	0	0	62	147	209	22	3	94	119
% App. Total	45.8	54.2	0		0	0	0		0	29.7	70.3		18.5	2.5	79	
PHF	.864	.776	.000	.965	.000	.000	.000	.000	.000	.912	.799	.871	.611	.375	.870	.930

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 02_SBC_Glen_215S AM
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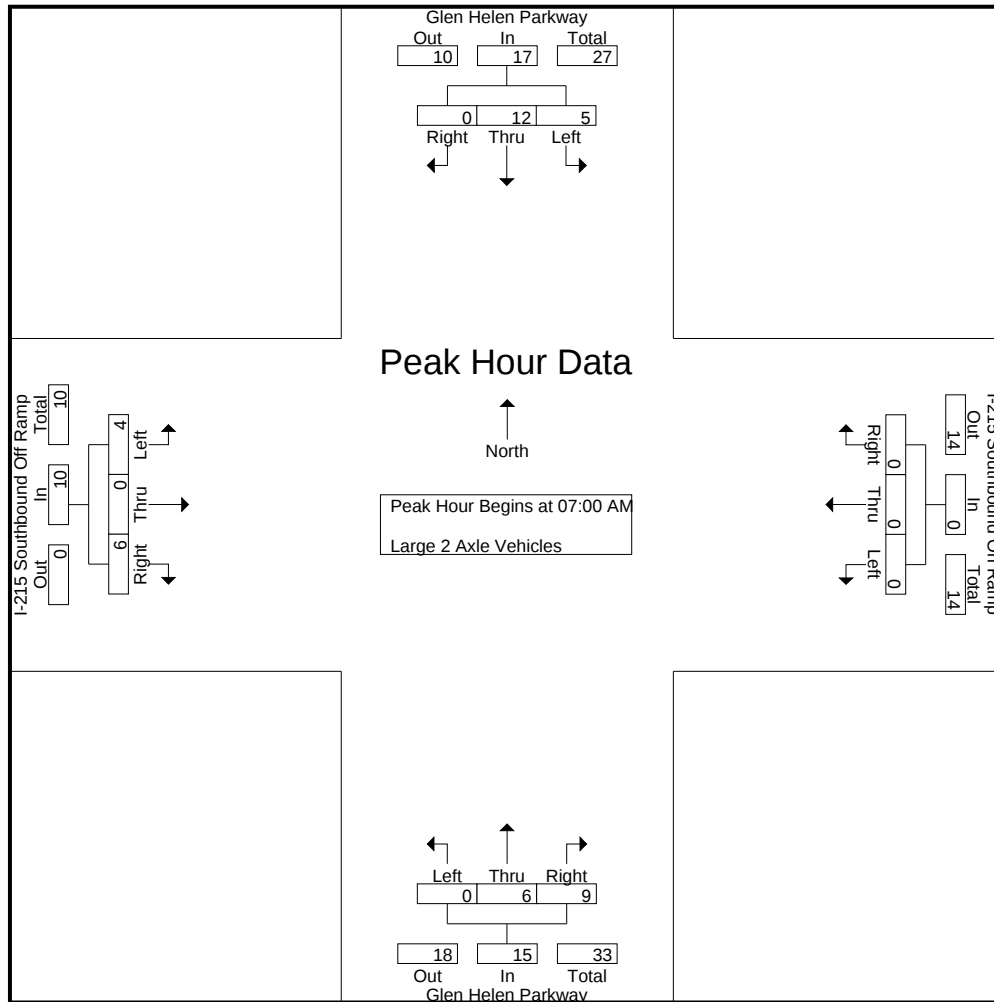
Groups Printed- Large 2 Axle Vehicles

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	5	0	7	0	0	0	0	0	3	1	4	0	0	2	2	13
07:15 AM	1	2	0	3	0	0	0	0	0	2	1	3	1	0	2	3	9
07:30 AM	1	2	0	3	0	0	0	0	0	0	2	2	2	0	0	2	7
07:45 AM	1	3	0	4	0	0	0	0	0	1	5	6	1	0	2	3	13
Total	5	12	0	17	0	0	0	0	0	6	9	15	4	0	6	10	42
08:00 AM	0	1	0	1	0	0	0	0	0	3	1	4	2	0	2	4	9
08:15 AM	2	0	0	2	0	0	0	0	0	3	1	4	1	0	0	1	7
08:30 AM	8	2	0	10	0	0	0	0	0	3	0	3	1	0	0	1	14
08:45 AM	0	0	0	0	0	0	0	0	0	2	1	3	0	0	6	6	9
Total	10	3	0	13	0	0	0	0	0	11	3	14	4	0	8	12	39
Grand Total	15	15	0	30	0	0	0	0	0	17	12	29	8	0	14	22	81
Apprch %	50	50	0		0	0	0		0	58.6	41.4		36.4	0	63.6		
Total %	18.5	18.5	0	37	0	0	0	0	0	21	14.8	35.8	9.9	0	17.3	27.2	

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	2	5	0	7	0	0	0	0	0	3	1	4	0	0	2	2	13
07:15 AM	1	2	0	3	0	0	0	0	0	2	1	3	1	0	2	3	9
07:30 AM	1	2	0	3	0	0	0	0	0	0	2	2	2	0	0	2	7
07:45 AM	1	3	0	4	0	0	0	0	0	1	5	6	1	0	2	3	13
Total Volume	5	12	0	17	0	0	0	0	0	6	9	15	4	0	6	10	42
% App. Total	29.4	70.6	0		0	0	0		0	40	60		40	0	60		
PHF	.625	.600	.000	.607	.000	.000	.000	.000	.000	.500	.450	.625	.500	.000	.750	.833	.808

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	2	5	0	7	0	0	0	0	0	3	1	4	0	0	2	2
+15 mins.	1	2	0	3	0	0	0	0	0	2	1	3	1	0	2	3
+30 mins.	1	2	0	3	0	0	0	0	0	0	2	2	2	0	0	2
+45 mins.	1	3	0	4	0	0	0	0	0	1	5	6	1	0	2	3
Total Volume	5	12	0	17	0	0	0	0	0	6	9	15	4	0	6	10
% App. Total	29.4	70.6	0		0	0	0		0	40	60		40	0	60	
PHF	.625	.600	.000	.607	.000	.000	.000	.000	.000	.500	.450	.625	.500	.000	.750	.833

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

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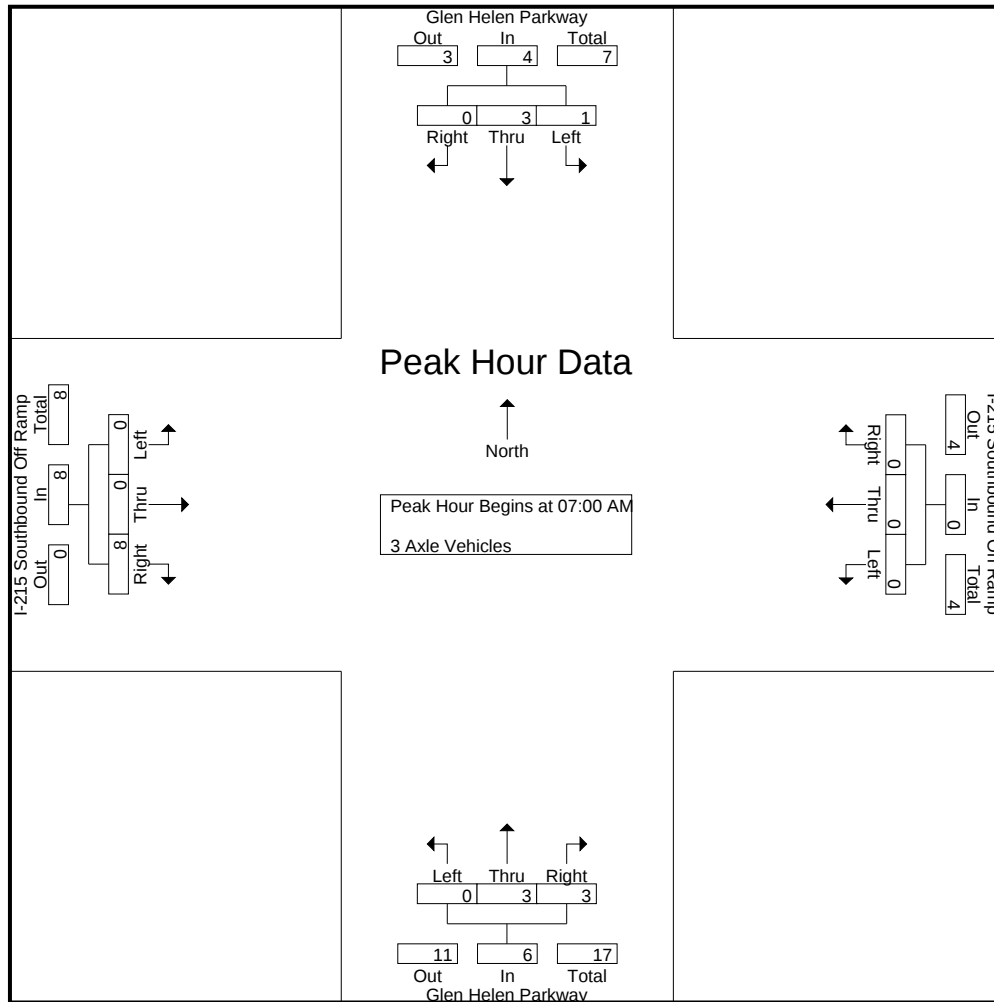
Groups Printed- 3 Axle Vehicles

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	1	1	2	0	0	1	1	4
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2	3
07:30 AM	1	1	0	2	0	0	0	0	0	1	1	2	0	0	1	1	5
07:45 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	4	4	6
Total	1	3	0	4	0	0	0	0	0	3	3	6	0	0	8	8	18
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	3	3	4
08:15 AM	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
08:30 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	4	4	7
08:45 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	3	3	5
Total	0	2	0	2	0	0	0	0	0	8	0	8	0	0	10	10	20
Grand Total	1	5	0	6	0	0	0	0	0	11	3	14	0	0	18	18	38
Apprch %	16.7	83.3	0		0	0	0		0	78.6	21.4		0	0	100		
Total %	2.6	13.2	0	15.8	0	0	0	0	0	28.9	7.9	36.8	0	0	47.4	47.4	

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	1	0	1	0	0	0	0	0	1	1	2	0	0	1	1	4
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2	3
07:30 AM	1	1	0	2	0	0	0	0	0	1	1	2	0	0	1	1	5
07:45 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	4	4	6
Total Volume	1	3	0	4	0	0	0	0	0	3	3	6	0	0	8	8	18
% App. Total	25	75	0		0	0	0		0	50	50		0	0	100		
PHF	.250	.750	.000	.500	.000	.000	.000	.000	.000	.750	.750	.750	.000	.000	.500	.500	.750

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	1	0	1	0	0	0	0	0	1	1	2	0	0	1	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2
+30 mins.	1	1	0	2	0	0	0	0	0	1	1	2	0	0	1	1
+45 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	4	4
Total Volume	1	3	0	4	0	0	0	0	0	3	3	6	0	0	8	8
% App. Total	25	75	0		0	0	0		0	50	50		0	0	100	
PHF	.250	.750	.000	.500	.000	.000	.000	.000	.000	.750	.750	.750	.000	.000	.500	.500

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 02_SBC_Glen_215S AM
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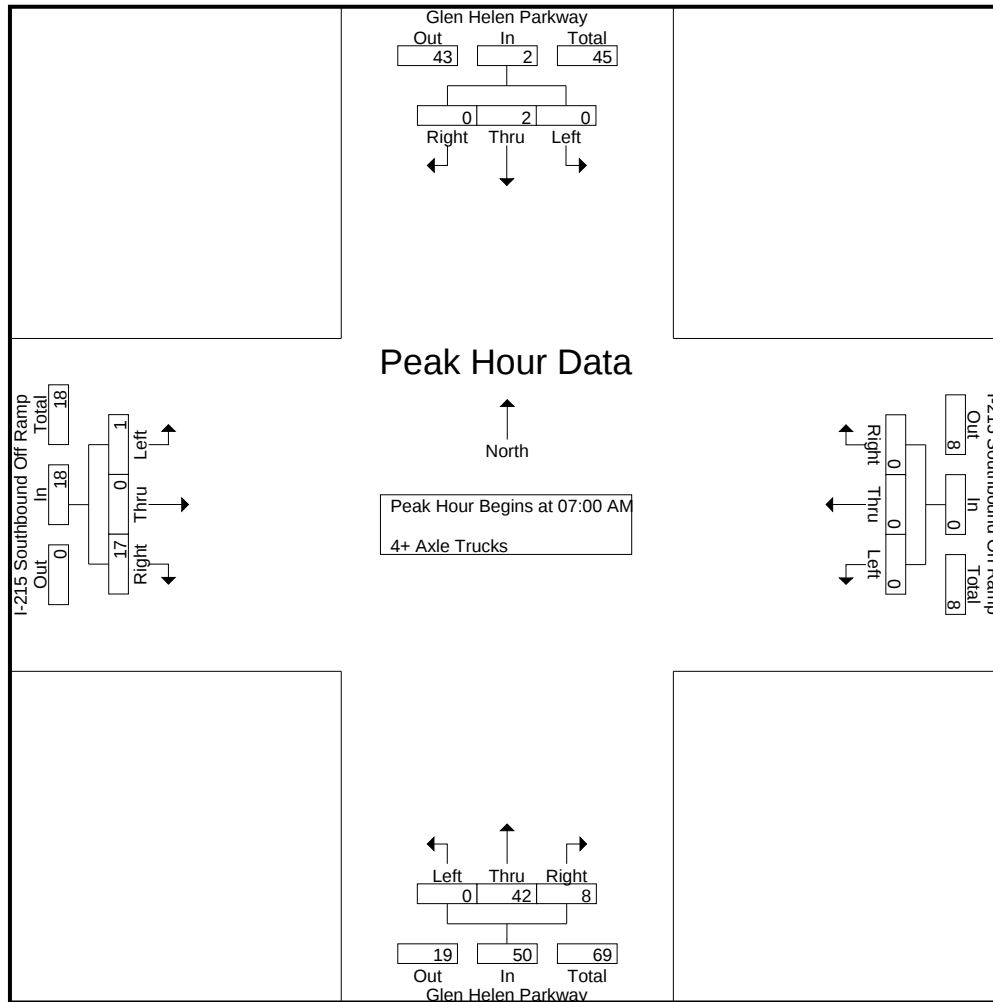
Groups Printed- 4+ Axle Trucks

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	11	2	13	0	0	2	2	16
07:15 AM	0	1	0	1	0	0	0	0	0	16	0	16	0	0	2	2	19
07:30 AM	0	0	0	0	0	0	0	0	0	13	5	18	1	0	4	5	23
07:45 AM	0	0	0	0	0	0	0	0	0	2	1	3	0	0	9	9	12
Total	0	2	0	2	0	0	0	0	0	42	8	50	1	0	17	18	70
08:00 AM	0	1	0	1	0	0	0	0	0	7	1	8	0	0	6	6	15
08:15 AM	1	0	0	1	0	0	0	0	0	4	1	5	1	0	8	9	15
08:30 AM	0	0	0	0	0	0	0	0	0	7	0	7	1	0	6	7	14
08:45 AM	0	0	0	0	0	0	0	0	0	9	2	11	0	0	3	3	14
Total	1	1	0	2	0	0	0	0	0	27	4	31	2	0	23	25	58
Grand Total	1	3	0	4	0	0	0	0	0	69	12	81	3	0	40	43	128
Apprch %	25	75	0		0	0	0		0	85.2	14.8		7	0	93		
Total %	0.8	2.3	0	3.1	0	0	0	0	0	53.9	9.4	63.3	2.3	0	31.2	33.6	

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	1	0	1	0	0	0	0	0	11	2	13	0	0	2	2	16
07:15 AM	0	1	0	1	0	0	0	0	0	16	0	16	0	0	2	2	19
07:30 AM	0	0	0	0	0	0	0	0	0	13	5	18	1	0	4	5	23
07:45 AM	0	0	0	0	0	0	0	0	0	2	1	3	0	0	9	9	12
Total Volume	0	2	0	2	0	0	0	0	0	42	8	50	1	0	17	18	70
% App. Total	0	100	0		0	0	0		0	84	16		5.6	0	94.4		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.656	.400	.694	.250	.000	.472	.500	.761

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	1	0	1	0	0	0	0	0	11	2	13	0	0	2	2
+15 mins.	0	1	0	1	0	0	0	0	0	16	0	16	0	0	2	2
+30 mins.	0	0	0	0	0	0	0	0	0	13	5	18	1	0	4	5
+45 mins.	0	0	0	0	0	0	0	0	0	2	1	3	0	0	9	9
Total Volume	0	2	0	2	0	0	0	0	0	42	8	50	1	0	17	18
% App. Total	0	100	0		0	0	0		0	84	16		5.6	0	94.4	
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.656	.400	.694	.250	.000	.472	.500

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 02_SBC_Glen_215S PM
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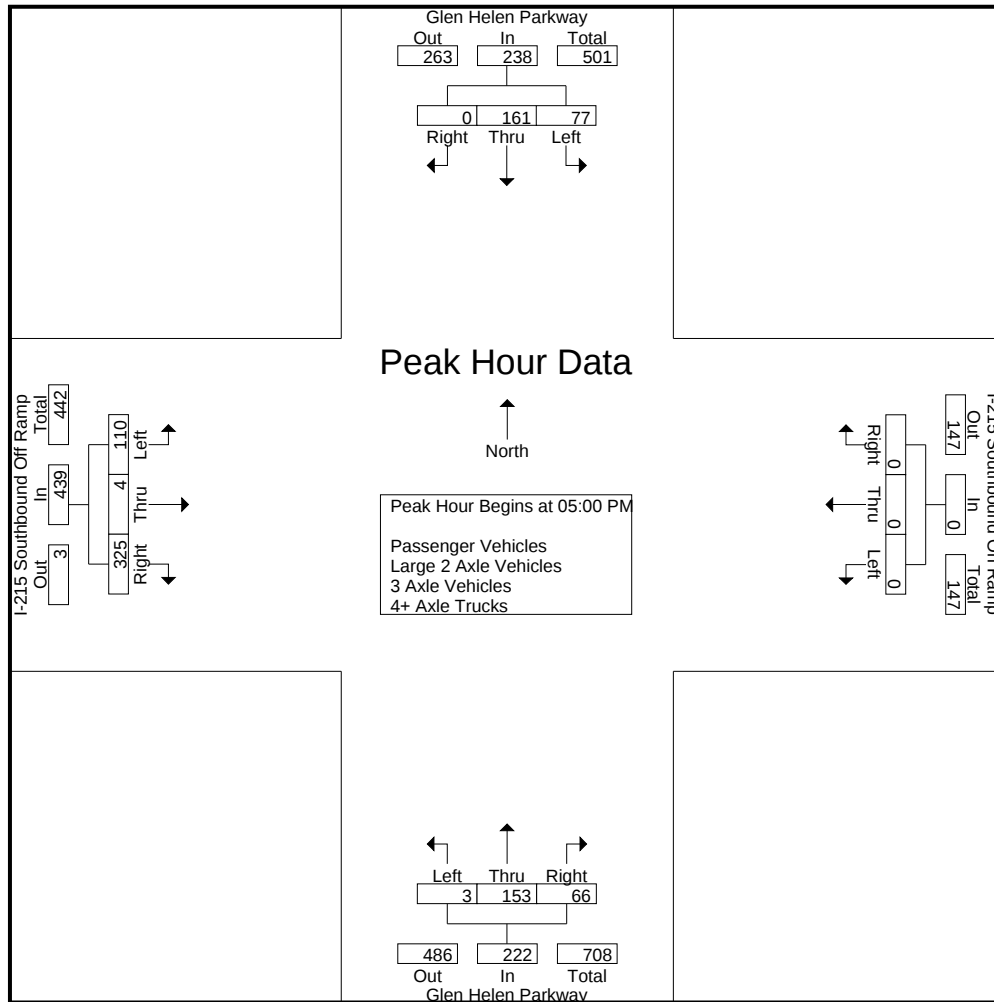
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	15	31	0	46	0	0	0	0	0	47	35	82	21	1	48	70	198
04:15 PM	15	39	0	54	0	0	0	0	0	48	16	64	21	0	57	78	196
04:30 PM	24	37	0	61	0	0	0	0	0	59	16	75	23	0	54	77	213
04:45 PM	20	53	0	73	0	0	0	0	0	48	21	69	20	1	54	75	217
Total	74	160	0	234	0	0	0	0	0	202	88	290	85	2	213	300	824
05:00 PM	21	35	0	56	0	0	0	0	0	37	20	57	27	4	74	105	218
05:15 PM	20	40	0	60	0	0	0	0	1	34	16	51	37	0	83	120	231
05:30 PM	19	35	0	54	0	0	0	0	1	47	13	61	24	0	87	111	226
05:45 PM	17	51	0	68	0	0	0	0	1	35	17	53	22	0	81	103	224
Total	77	161	0	238	0	0	0	0	3	153	66	222	110	4	325	439	899
Grand Total	151	321	0	472	0	0	0	0	3	355	154	512	195	6	538	739	1723
Apprch %	32	68	0		0	0	0		0.6	69.3	30.1		26.4	0.8	72.8		
Total %	8.8	18.6	0	27.4	0	0	0	0	0.2	20.6	8.9	29.7	11.3	0.3	31.2	42.9	
Passenger Vehicles	142	301	0	443	0	0	0	0	3	304	141	448	189	4	446	639	1530
% Passenger Vehicles	94	93.8	0	93.9	0	0	0	0	100	85.6	91.6	87.5	96.9	66.7	82.9	86.5	88.8
Large 2 Axle Vehicles	9	15	0	24	0	0	0	0	0	13	6	19	4	0	11	15	58
% Large 2 Axle Vehicles	6	4.7	0	5.1	0	0	0	0	0	3.7	3.9	3.7	2.1	0	2	2	3.4
3 Axle Vehicles	0	1	0	1	0	0	0	0	0	5	2	7	1	0	12	13	21
% 3 Axle Vehicles	0	0.3	0	0.2	0	0	0	0	0	1.4	1.3	1.4	0.5	0	2.2	1.8	1.2
4+ Axle Trucks	0	4	0	4	0	0	0	0	0	33	5	38	1	2	69	72	114
% 4+ Axle Trucks	0	1.2	0	0.8	0	0	0	0	0	9.3	3.2	7.4	0.5	33.3	12.8	9.7	6.6

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	21	35	0	56	0	0	0	0	0	37	20	57	27	4	74	105	218
05:15 PM	20	40	0	60	0	0	0	0	1	34	16	51	37	0	83	120	231
05:30 PM	19	35	0	54	0	0	0	0	1	47	13	61	24	0	87	111	226
05:45 PM	17	51	0	68	0	0	0	0	1	35	17	53	22	0	81	103	224
Total Volume	77	161	0	238	0	0	0	0	3	153	66	222	110	4	325	439	899
% App. Total	32.4	67.6	0		0	0	0		1.4	68.9	29.7		25.1	0.9	74		
PHF	.917	.789	.000	.875	.000	.000	.000	.000	.750	.814	.825	.910	.743	.250	.934	.915	.973

City of San Bernardino
N/S: Glen Helen Parkway
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:00 PM				04:00 PM				05:00 PM			
+0 mins.	24	37	0	61	0	0	0	0	0	47	35	82	27	4	74	105
+15 mins.	20	53	0	73	0	0	0	0	0	48	16	64	37	0	83	120
+30 mins.	21	35	0	56	0	0	0	0	0	59	16	75	24	0	87	111
+45 mins.	20	40	0	60	0	0	0	0	0	48	21	69	22	0	81	103
Total Volume	85	165	0	250	0	0	0	0	0	202	88	290	110	4	325	439
% App. Total	34	66	0		0	0	0		0	69.7	30.3		25.1	0.9	74	
PHF	.885	.778	.000	.856	.000	.000	.000	.000	.000	.856	.629	.884	.743	.250	.934	.915

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 02_SBC_Glen_215S PM
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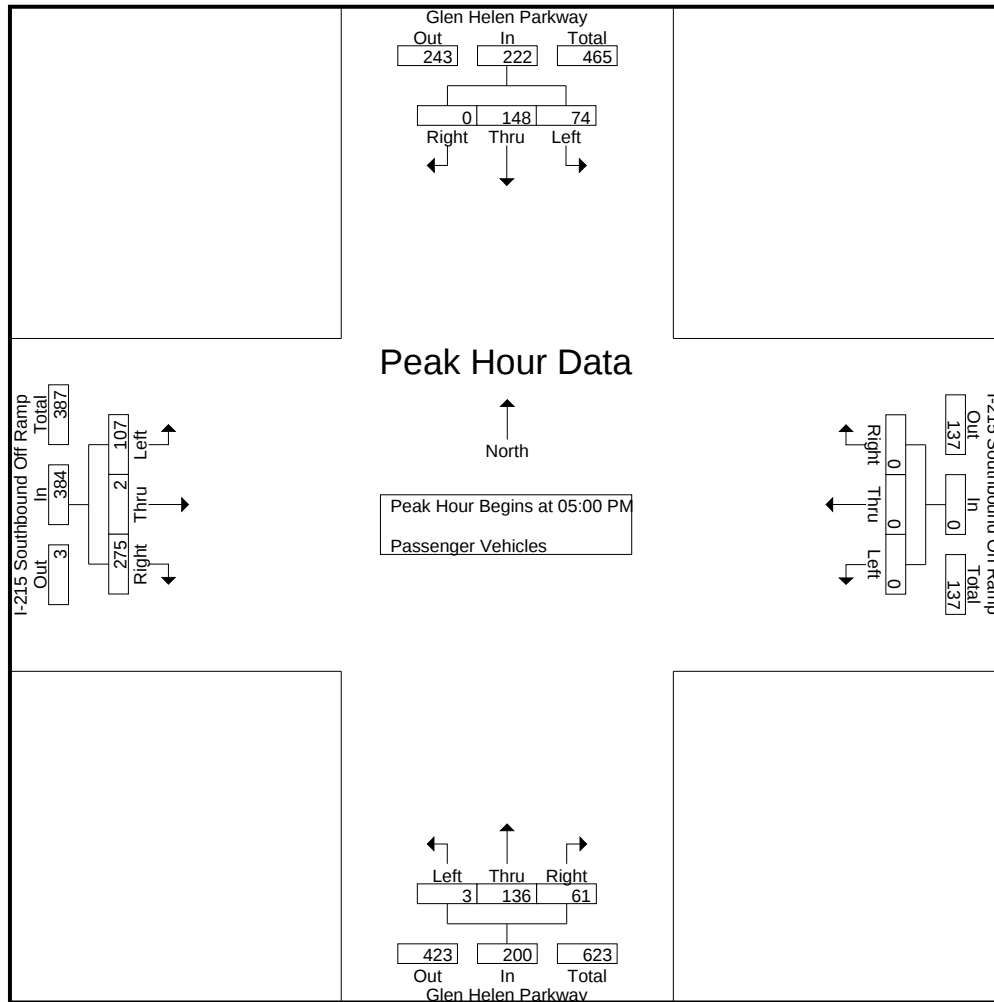
Groups Printed- Passenger Vehicles

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	14	31	0	45	0	0	0	0	0	40	30	70	20	1	36	57	172
04:15 PM	14	38	0	52	0	0	0	0	0	45	15	60	20	0	45	65	177
04:30 PM	22	32	0	54	0	0	0	0	0	47	16	63	22	0	46	68	185
04:45 PM	18	52	0	70	0	0	0	0	0	36	19	55	20	1	44	65	190
Total	68	153	0	221	0	0	0	0	0	168	80	248	82	2	171	255	724
05:00 PM	20	32	0	52	0	0	0	0	0	33	20	53	26	2	59	87	192
05:15 PM	20	39	0	59	0	0	0	0	1	31	13	45	36	0	68	104	208
05:30 PM	18	34	0	52	0	0	0	0	1	43	11	55	24	0	81	105	212
05:45 PM	16	43	0	59	0	0	0	0	1	29	17	47	21	0	67	88	194
Total	74	148	0	222	0	0	0	0	3	136	61	200	107	2	275	384	806
Grand Total	142	301	0	443	0	0	0	0	3	304	141	448	189	4	446	639	1530
Apprch %	32.1	67.9	0		0	0	0		0.7	67.9	31.5		29.6	0.6	69.8		
Total %	9.3	19.7	0	29	0	0	0	0	0.2	19.9	9.2	29.3	12.4	0.3	29.2	41.8	

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	20	32	0	52	0	0	0	0	0	33	20	53	26	2	59	87	192
05:15 PM	20	39	0	59	0	0	0	0	1	31	13	45	36	0	68	104	208
05:30 PM	18	34	0	52	0	0	0	0	1	43	11	55	24	0	81	105	212
05:45 PM	16	43	0	59	0	0	0	0	1	29	17	47	21	0	67	88	194
Total Volume	74	148	0	222	0	0	0	0	3	136	61	200	107	2	275	384	806
% App. Total	33.3	66.7	0		0	0	0		1.5	68	30.5		27.9	0.5	71.6		
PHF	.925	.860	.000	.941	.000	.000	.000	.000	.750	.791	.763	.909	.743	.250	.849	.914	.950

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 02_SBC_Glen_215S PM
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	20	32	0	52	0	0	0	0	0	33	20	53	26	2	59	87
+15 mins.	20	39	0	59	0	0	0	0	1	31	13	45	36	0	68	104
+30 mins.	18	34	0	52	0	0	0	0	1	43	11	55	24	0	81	105
+45 mins.	16	43	0	59	0	0	0	0	1	29	17	47	21	0	67	88
Total Volume	74	148	0	222	0	0	0	0	3	136	61	200	107	2	275	384
% App. Total	33.3	66.7	0		0	0	0		1.5	68	30.5		27.9	0.5	71.6	
PHF	.925	.860	.000	.941	.000	.000	.000	.000	.750	.791	.763	.909	.743	.250	.849	.914

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 02_SBC_Glen_215S PM
Site Code : 22523027
Start Date : 1/11/2023
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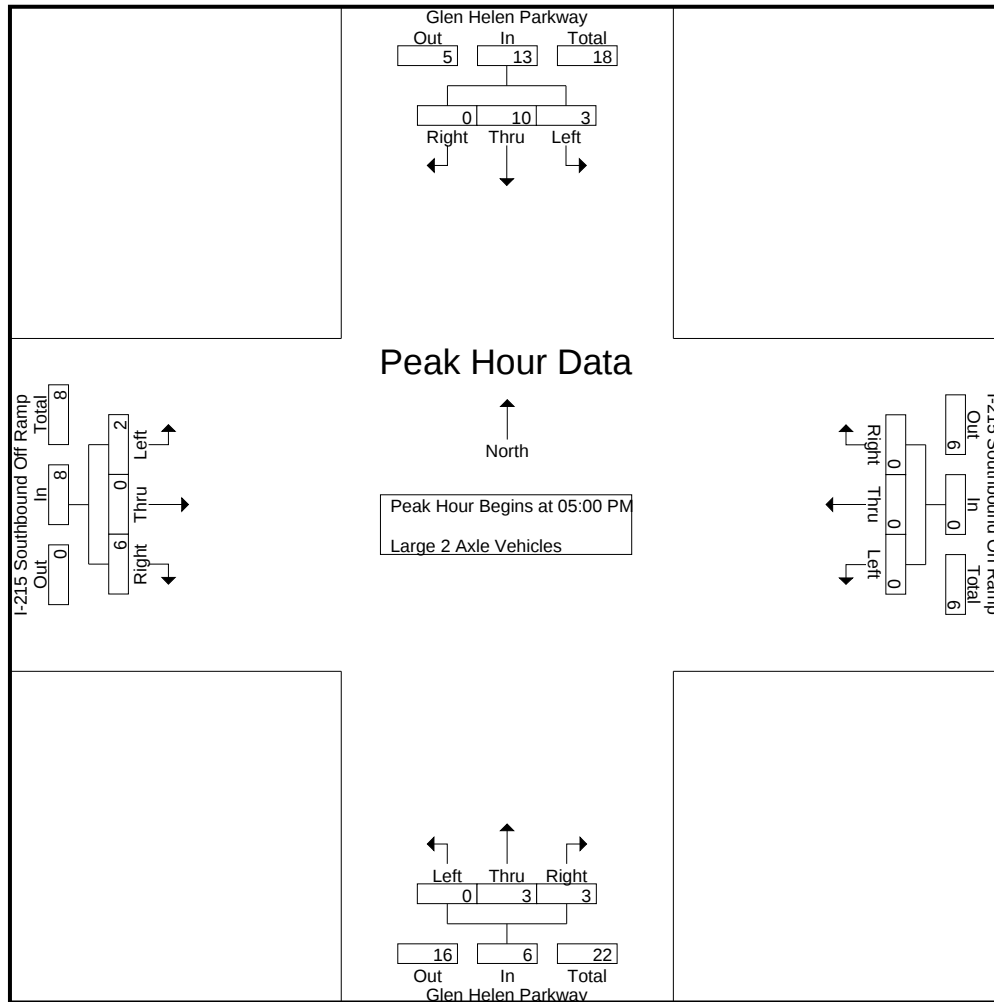
Groups Printed- Large 2 Axle Vehicles

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	0	0	1	0	0	0	0	0	2	1	3	1	0	0	1	5
04:15 PM	1	1	0	2	0	0	0	0	0	0	1	1	1	0	3	4	7
04:30 PM	2	4	0	6	0	0	0	0	0	4	0	4	0	0	0	0	10
04:45 PM	2	0	0	2	0	0	0	0	0	4	1	5	0	0	2	2	9
Total	6	5	0	11	0	0	0	0	0	10	3	13	2	0	5	7	31
05:00 PM	1	3	0	4	0	0	0	0	0	0	0	0	0	0	4	4	8
05:15 PM	0	1	0	1	0	0	0	0	0	0	2	2	1	0	1	2	5
05:30 PM	1	1	0	2	0	0	0	0	0	2	1	3	0	0	1	1	6
05:45 PM	1	5	0	6	0	0	0	0	0	1	0	1	1	0	0	1	8
Total	3	10	0	13	0	0	0	0	0	3	3	6	2	0	6	8	27
Grand Total	9	15	0	24	0	0	0	0	0	13	6	19	4	0	11	15	58
Apprch %	37.5	62.5	0		0	0	0		0	68.4	31.6		26.7	0	73.3		
Total %	15.5	25.9	0	41.4	0	0	0	0	0	22.4	10.3	32.8	6.9	0	19	25.9	

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	3	0	4	0	0	0	0	0	0	0	0	0	0	4	4	8
05:15 PM	0	1	0	1	0	0	0	0	0	0	2	2	1	0	1	2	5
05:30 PM	1	1	0	2	0	0	0	0	0	2	1	3	0	0	1	1	6
05:45 PM	1	5	0	6	0	0	0	0	0	1	0	1	1	0	0	1	8
Total Volume	3	10	0	13	0	0	0	0	0	3	3	6	2	0	6	8	27
% App. Total	23.1	76.9	0		0	0	0		0	50	50		25	0	75		
PHF	.750	.500	.000	.542	.000	.000	.000	.000	.000	.375	.375	.500	.500	.000	.375	.500	.844

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	1	3	0	4	0	0	0	0	0	0	0	0	0	0	4	4
+15 mins.	0	1	0	1	0	0	0	0	0	0	0	2	2	1	0	2
+30 mins.	1	1	0	2	0	0	0	0	0	2	1	3	0	0	1	1
+45 mins.	1	5	0	6	0	0	0	0	0	1	0	1	1	0	0	1
Total Volume	3	10	0	13	0	0	0	0	0	3	3	6	2	0	6	8
% App. Total	23.1	76.9	0		0	0	0		0	50	50		25	0	75	
PHF	.750	.500	.000	.542	.000	.000	.000	.000	.000	.375	.375	.500	.500	.000	.375	.500

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 02_SBC_Glen_215S PM
Site Code : 22523027
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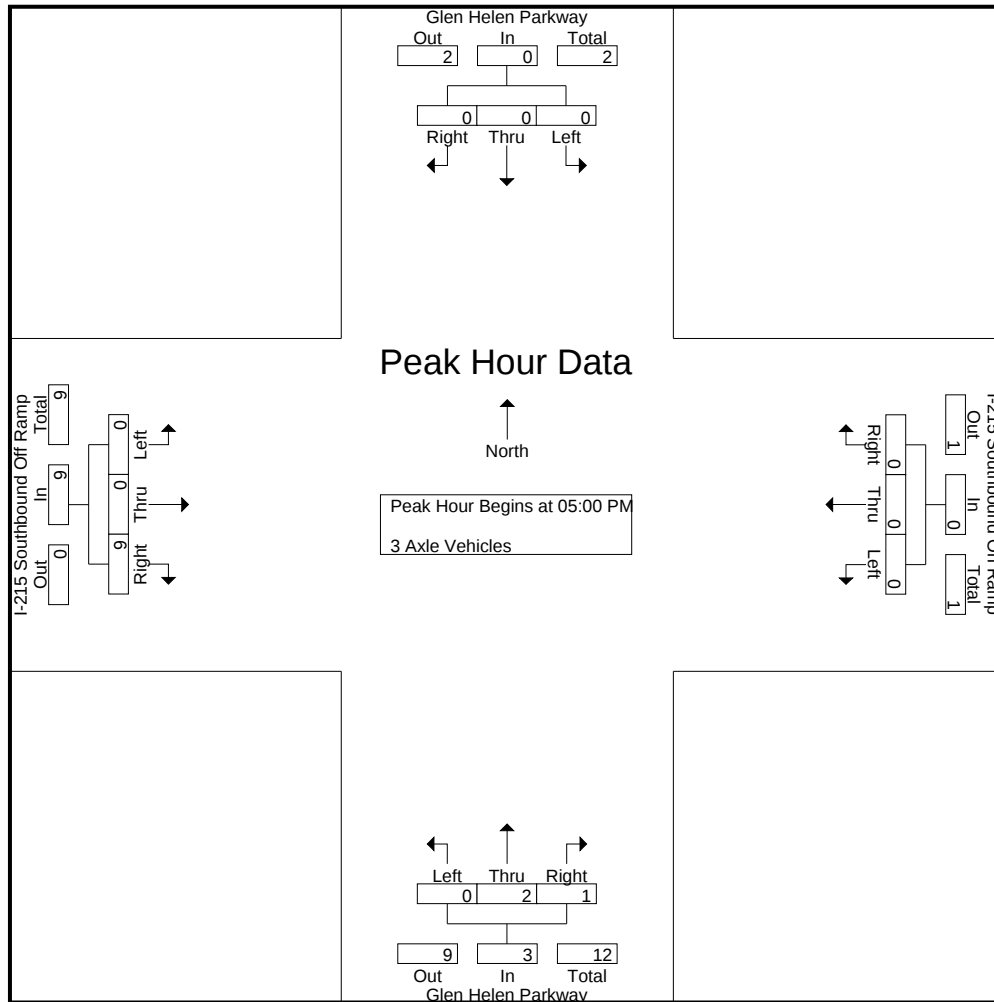
Groups Printed- 3 Axle Vehicles

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	1	1	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	2
04:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	0	1	0	1	0	0	0	0	0	3	1	4	1	0	3	4	9
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
05:15 PM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	4	4	6
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	3	3	4
Total	0	0	0	0	0	0	0	0	0	2	1	3	0	0	9	9	12
Grand Total	0	1	0	1	0	0	0	0	0	5	2	7	1	0	12	13	21
Apprch %	0	100	0		0	0	0		0	71.4	28.6		7.7	0	92.3		
Total %	0	4.8	0	4.8	0	0	0	0	0	23.8	9.5	33.3	4.8	0	57.1	61.9	

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
05:15 PM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	4	4	6
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	3	3	4
Total Volume	0	0	0	0	0	0	0	0	0	2	1	3	0	0	9	9	12
% App. Total	0	0	0		0	0	0		0	66.7	33.3		0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.250	.375	.000	.000	.563	.563	.500

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

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Site Code : 22523027
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
+15 mins.	0	0	0	0	0	0	0	0	0	1	1	2	0	0	4	4
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	3	3
Total Volume	0	0	0	0	0	0	0	0	0	2	1	3	0	0	9	9
% App. Total	0	0	0	0	0	0	0	0	0	66.7	33.3		0	0	100	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.250	.375	.000	.000	.563	.563

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 02_SBC_Glen_215S PM
Site Code : 22523027
Start Date : 1/11/2023
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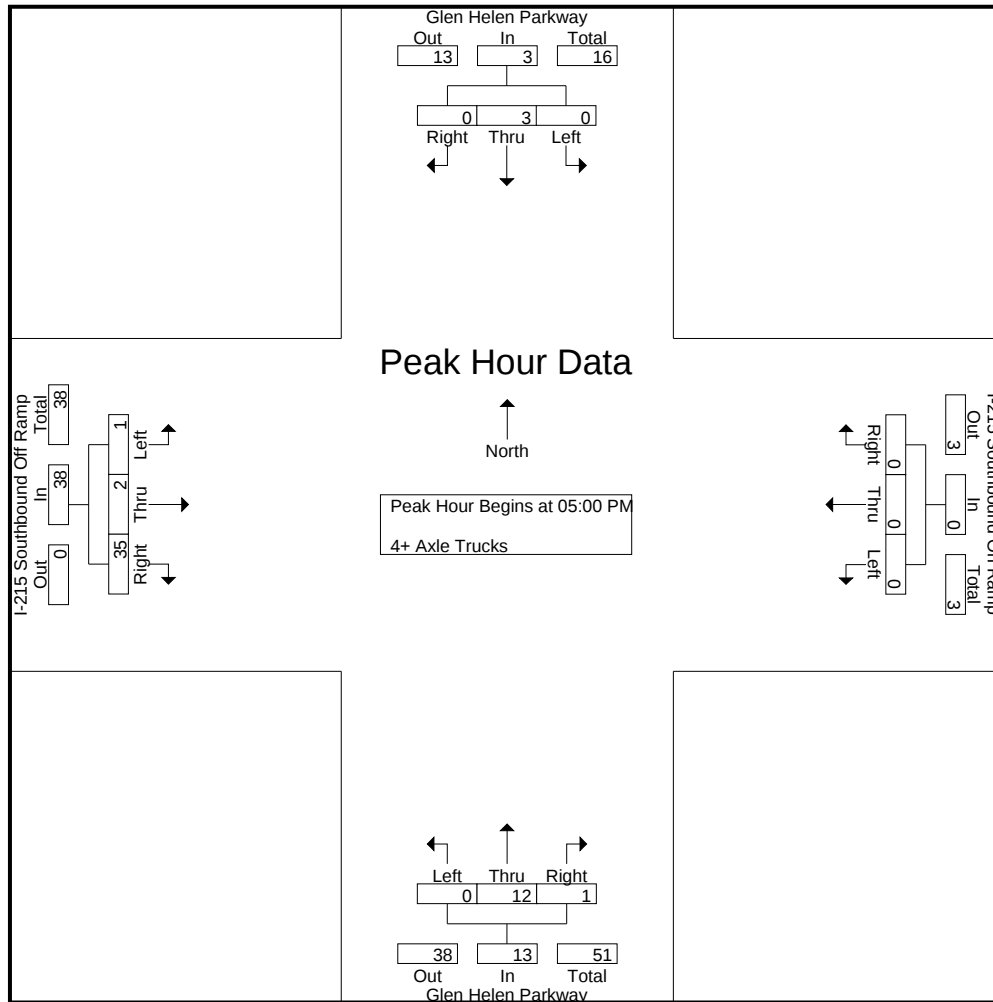
Groups Printed- 4+ Axle Trucks

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	4	3	7	0	0	11	11	18
04:15 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	7	7	10
04:30 PM	0	1	0	1	0	0	0	0	0	7	0	7	0	0	8	8	16
04:45 PM	0	0	0	0	0	0	0	0	0	7	1	8	0	0	8	8	16
Total	0	1	0	1	0	0	0	0	0	21	4	25	0	0	34	34	60
05:00 PM	0	0	0	0	0	0	0	0	0	4	0	4	1	2	9	12	16
05:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	10	10	12
05:30 PM	0	0	0	0	0	0	0	0	0	2	1	3	0	0	5	5	8
05:45 PM	0	3	0	3	0	0	0	0	0	4	0	4	0	0	11	11	18
Total	0	3	0	3	0	0	0	0	0	12	1	13	1	2	35	38	54
Grand Total	0	4	0	4	0	0	0	0	0	33	5	38	1	2	69	72	114
Apprch %	0	100	0		0	0	0		0	86.8	13.2		1.4	2.8	95.8		
Total %	0	3.5	0	3.5	0	0	0	0	0	28.9	4.4	33.3	0.9	1.8	60.5	63.2	

	Glen Helen Parkway Southbound				I-215 Southbound On Ramp Westbound				Glen Helen Parkway Northbound				I-215 Southbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	4	0	4	1	2	9	12	16
05:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	10	10	12
05:30 PM	0	0	0	0	0	0	0	0	0	2	1	3	0	0	5	5	8
05:45 PM	0	3	0	3	0	0	0	0	0	4	0	4	0	0	11	11	18
Total Volume	0	3	0	3	0	0	0	0	0	12	1	13	1	2	35	38	54
% App. Total	0	100	0		0	0	0		0	92.3	7.7		2.6	5.3	92.1		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.750	.250	.813	.250	.250	.795	.792	.750

City of San Bernardino
N/S: Glen Helen Parkway
E/W: I-215 Southbound Ramps
Weather: Clear

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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	4	0	4	1	2	9	12
+15 mins.	0	0	0	0	0	0	0	0	0	2	0	2	0	0	10	10
+30 mins.	0	0	0	0	0	0	0	0	0	2	1	3	0	0	5	5
+45 mins.	0	3	0	3	0	0	0	0	0	4	0	4	0	0	11	11
Total Volume	0	3	0	3	0	0	0	0	0	12	1	13	1	2	35	38
% App. Total	0	100	0		0	0	0		0	92.3	7.7		2.6	5.3	92.1	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.750	.250	.813	.250	.250	.795	.792

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Cajon Boulevard
Weather: Clear

File Name : 03_SBC_Glen_Caj AM
Site Code : 22523027
Start Date : 1/11/2023
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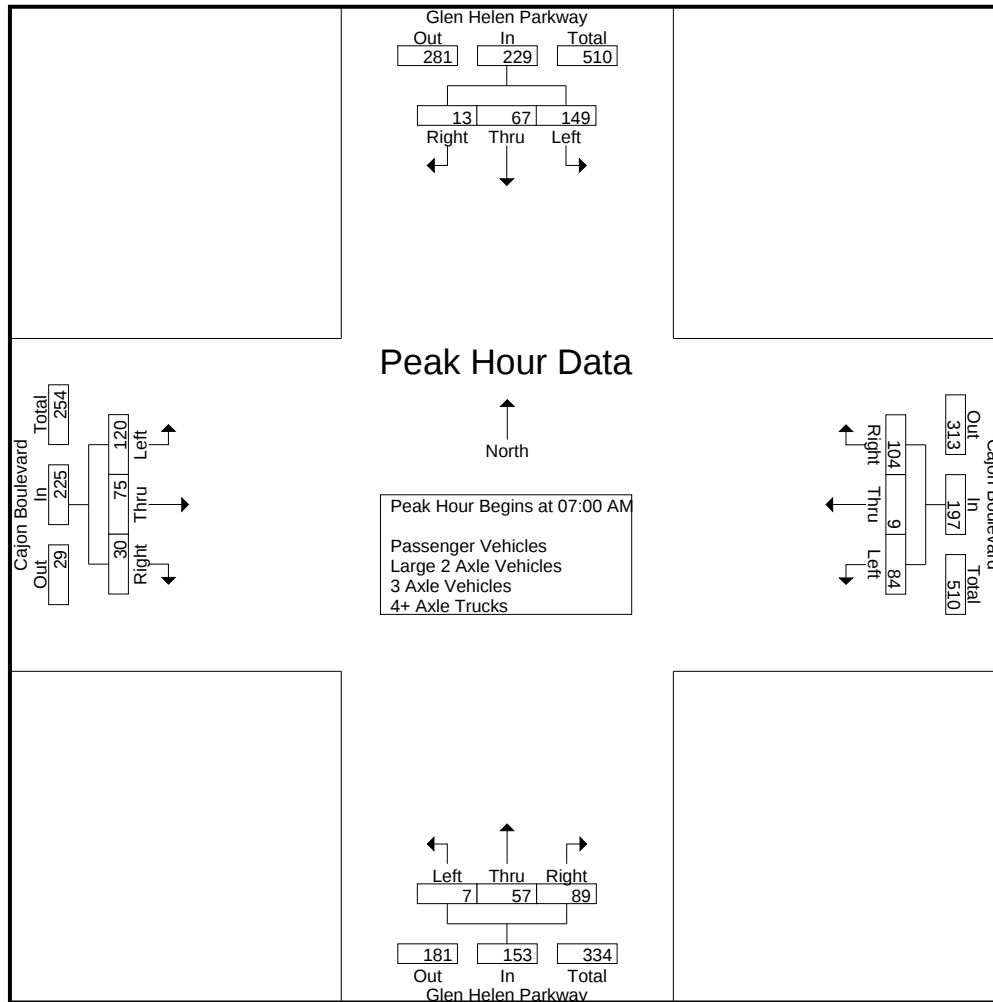
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	31	13	2	46	19	4	30	53	2	14	21	37	39	19	10	68	204
07:15 AM	38	21	2	61	21	1	29	51	2	9	17	28	28	19	4	51	191
07:30 AM	38	14	2	54	24	1	28	53	2	16	27	45	34	23	9	66	218
07:45 AM	42	19	7	68	20	3	17	40	1	18	24	43	19	14	7	40	191
Total	149	67	13	229	84	9	104	197	7	57	89	153	120	75	30	225	804
08:00 AM	44	9	4	57	9	8	27	44	2	14	16	32	11	13	4	28	161
08:15 AM	31	12	9	52	9	2	24	35	3	16	13	32	12	4	2	18	137
08:30 AM	43	12	2	57	11	3	26	40	1	14	16	31	4	3	6	13	141
08:45 AM	41	10	2	53	19	5	25	49	0	11	21	32	2	12	5	19	153
Total	159	43	17	219	48	18	102	168	6	55	66	127	29	32	17	78	592
Grand Total	308	110	30	448	132	27	206	365	13	112	155	280	149	107	47	303	1396
Apprch %	68.8	24.6	6.7		36.2	7.4	56.4		4.6	40	55.4		49.2	35.3	15.5		
Total %	22.1	7.9	2.1	32.1	9.5	1.9	14.8	26.1	0.9	8	11.1	20.1	10.7	7.7	3.4	21.7	
Passenger Vehicles	228	102	26	356	107	26	110	243	11	99	132	242	145	105	43	293	1134
% Passenger Vehicles	74	92.7	86.7	79.5	81.1	96.3	53.4	66.6	84.6	88.4	85.2	86.4	97.3	98.1	91.5	96.7	81.2
Large 2 Axle Vehicles	12	8	2	22	9	1	8	18	1	11	6	18	0	2	2	4	62
% Large 2 Axle Vehicles	3.9	7.3	6.7	4.9	6.8	3.7	3.9	4.9	7.7	9.8	3.9	6.4	0	1.9	4.3	1.3	4.4
3 Axle Vehicles	22	0	2	24	3	0	10	13	1	1	9	11	2	0	0	2	50
% 3 Axle Vehicles	7.1	0	6.7	5.4	2.3	0	4.9	3.6	7.7	0.9	5.8	3.9	1.3	0	0	0.7	3.6
4+ Axle Trucks	46	0	0	46	13	0	78	91	0	1	8	9	2	0	2	4	150
% 4+ Axle Trucks	14.9	0	0	10.3	9.8	0	37.9	24.9	0	0.9	5.2	3.2	1.3	0	4.3	1.3	10.7

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	31	13	2	46	19	4	30	53	2	14	21	37	39	19	10	68	204
07:15 AM	38	21	2	61	21	1	29	51	2	9	17	28	28	19	4	51	191
07:30 AM	38	14	2	54	24	1	28	53	2	16	27	45	34	23	9	66	218
07:45 AM	42	19	7	68	20	3	17	40	1	18	24	43	19	14	7	40	191
Total Volume	149	67	13	229	84	9	104	197	7	57	89	153	120	75	30	225	804
% App. Total	65.1	29.3	5.7		42.6	4.6	52.8		4.6	37.3	58.2		53.3	33.3	13.3		
PHF	.887	.798	.464	.842	.875	.563	.867	.929	.875	.792	.824	.850	.769	.815	.750	.827	.922

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Cajon Boulevard
Weather: Clear

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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	38	21	2	61	19	4	30	53	2	14	21	37	39	19	10	68
+15 mins.	38	14	2	54	21	1	29	51	2	9	17	28	28	19	4	51
+30 mins.	42	19	7	68	24	1	28	53	2	16	27	45	34	23	9	66
+45 mins.	44	9	4	57	20	3	17	40	1	18	24	43	19	14	7	40
Total Volume	162	63	15	240	84	9	104	197	7	57	89	153	120	75	30	225
% App. Total	67.5	26.2	6.2		42.6	4.6	52.8		4.6	37.3	58.2		53.3	33.3	13.3	
PHF	.920	.750	.536	.882	.875	.563	.867	.929	.875	.792	.824	.850	.769	.815	.750	.827

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Cajon Boulevard
Weather: Clear

File Name : 03_SBC_Glen_Caj AM
Site Code : 22523027
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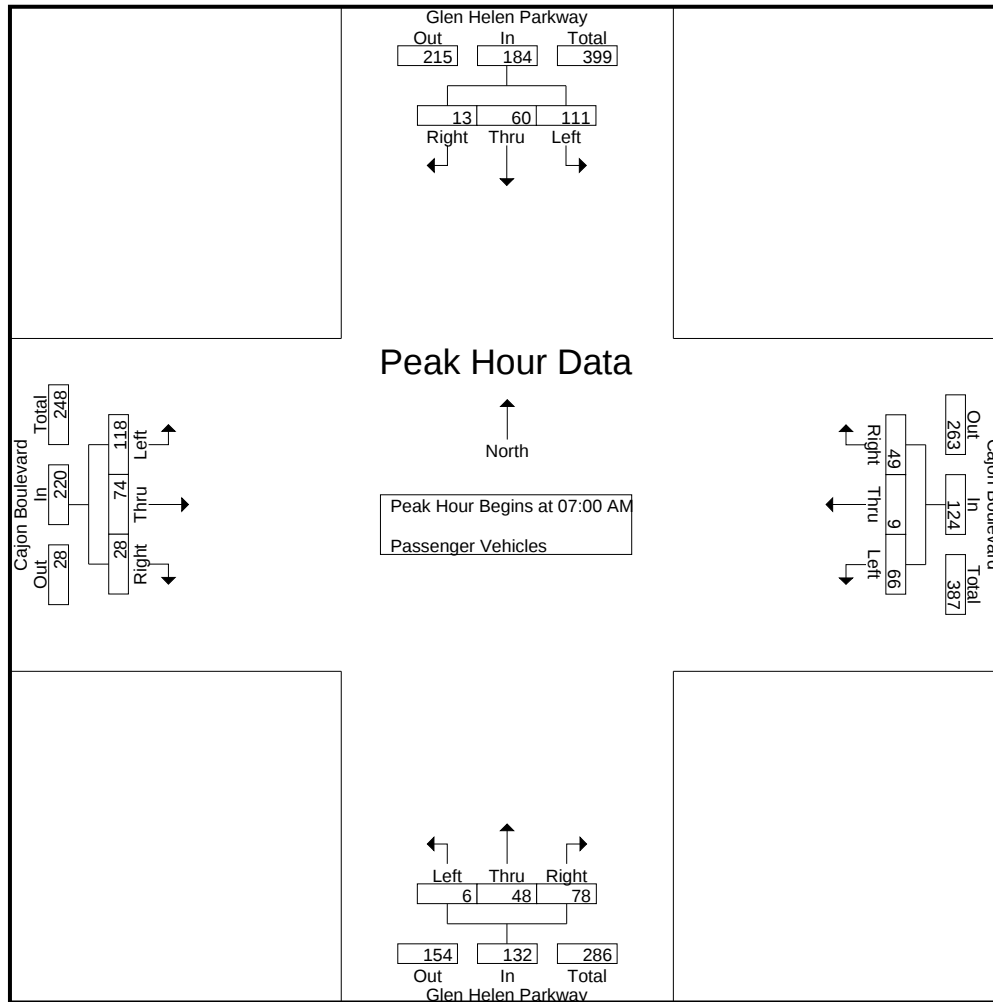
Groups Printed- Passenger Vehicles

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	21	11	2	34	11	4	13	28	2	12	18	32	38	19	10	67	161
07:15 AM	30	20	2	52	16	1	12	29	2	9	14	25	28	19	4	51	157
07:30 AM	32	12	2	46	20	1	11	32	1	14	25	40	33	22	8	63	181
07:45 AM	28	17	7	52	19	3	13	35	1	13	21	35	19	14	6	39	161
Total	111	60	13	184	66	9	49	124	6	48	78	132	118	74	28	220	660
08:00 AM	31	9	2	42	7	8	18	33	2	12	14	28	10	12	3	25	128
08:15 AM	23	12	7	42	7	2	18	27	2	15	12	29	11	4	2	17	115
08:30 AM	33	12	2	47	11	3	15	29	1	14	12	27	4	3	6	13	116
08:45 AM	30	9	2	41	16	4	10	30	0	10	16	26	2	12	4	18	115
Total	117	42	13	172	41	17	61	119	5	51	54	110	27	31	15	73	474
Grand Total	228	102	26	356	107	26	110	243	11	99	132	242	145	105	43	293	1134
Apprch %	64	28.7	7.3		44	10.7	45.3		4.5	40.9	54.5		49.5	35.8	14.7		
Total %	20.1	9	2.3	31.4	9.4	2.3	9.7	21.4	1	8.7	11.6	21.3	12.8	9.3	3.8	25.8	

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	21	11	2	34	11	4	13	28	2	12	18	32	38	19	10	67	161
07:15 AM	30	20	2	52	16	1	12	29	2	9	14	25	28	19	4	51	157
07:30 AM	32	12	2	46	20	1	11	32	1	14	25	40	33	22	8	63	181
07:45 AM	28	17	7	52	19	3	13	35	1	13	21	35	19	14	6	39	161
Total Volume	111	60	13	184	66	9	49	124	6	48	78	132	118	74	28	220	660
% App. Total	60.3	32.6	7.1		53.2	7.3	39.5		4.5	36.4	59.1		53.6	33.6	12.7		
PHF	.867	.750	.464	.885	.825	.563	.942	.886	.750	.857	.780	.825	.776	.841	.700	.821	.912

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	21	11	2	34	11	4	13	28	2	12	18	32	38	19	10	67
+15 mins.	30	20	2	52	16	1	12	29	2	9	14	25	28	19	4	51
+30 mins.	32	12	2	46	20	1	11	32	1	14	25	40	33	22	8	63
+45 mins.	28	17	7	52	19	3	13	35	1	13	21	35	19	14	6	39
Total Volume	111	60	13	184	66	9	49	124	6	48	78	132	118	74	28	220
% App. Total	60.3	32.6	7.1		53.2	7.3	39.5		4.5	36.4	59.1		53.6	33.6	12.7	
PHF	.867	.750	.464	.885	.825	.563	.942	.886	.750	.857	.780	.825	.776	.841	.700	.821

City of San Bernardino
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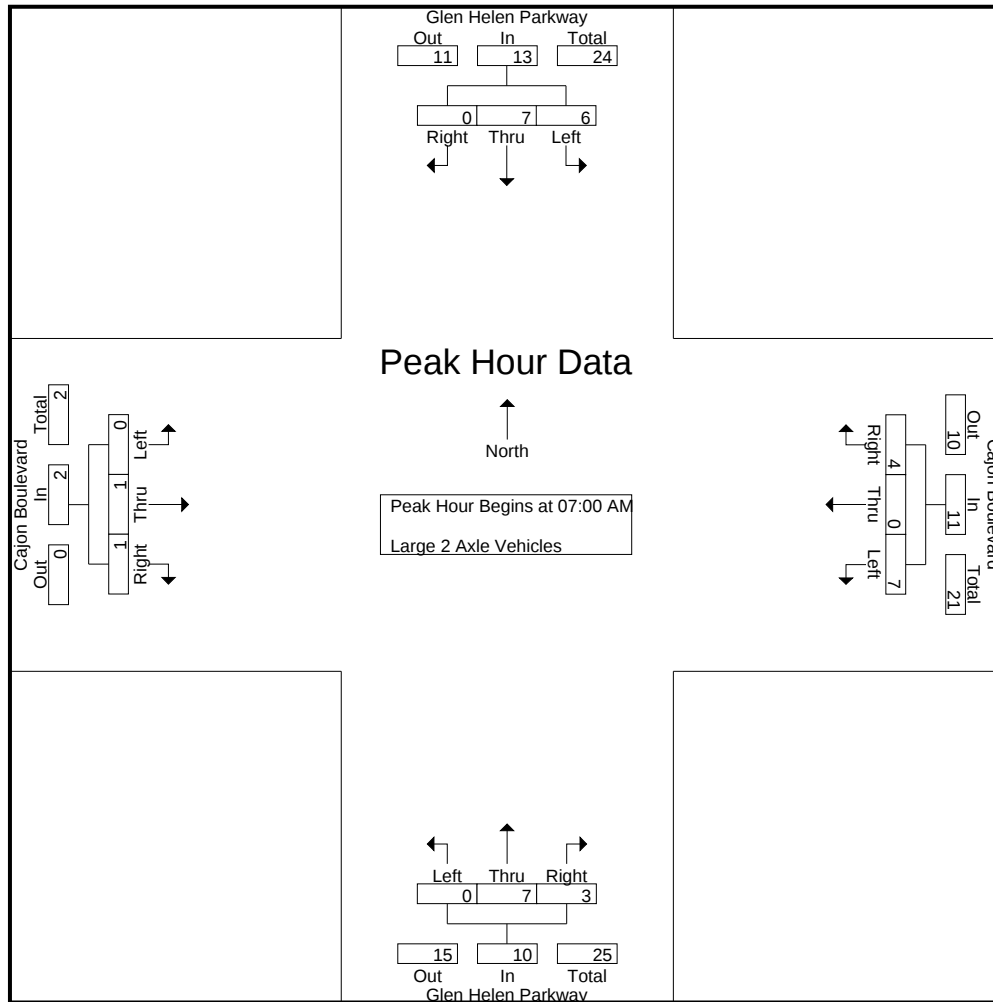
Groups Printed- Large 2 Axle Vehicles

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	2	0	6	7	0	2	9	0	1	2	3	0	0	0	0	18
07:15 AM	2	1	0	3	0	0	2	2	0	0	0	0	0	0	0	0	5
07:30 AM	0	2	0	2	0	0	0	0	0	1	0	1	0	1	0	1	4
07:45 AM	0	2	0	2	0	0	0	0	0	5	1	6	0	0	1	1	9
Total	6	7	0	13	7	0	4	11	0	7	3	10	0	1	1	2	36
08:00 AM	1	0	2	3	1	0	1	2	0	2	1	3	0	1	0	1	9
08:15 AM	0	0	0	0	1	0	1	2	1	1	1	3	0	0	0	0	5
08:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
08:45 AM	5	1	0	6	0	1	1	2	0	1	1	2	0	0	1	1	11
Total	6	1	2	9	2	1	4	7	1	4	3	8	0	1	1	2	26
Grand Total	12	8	2	22	9	1	8	18	1	11	6	18	0	2	2	4	62
Apprch %	54.5	36.4	9.1		50	5.6	44.4		5.6	61.1	33.3		0	50	50		
Total %	19.4	12.9	3.2	35.5	14.5	1.6	12.9	29	1.6	17.7	9.7	29	0	3.2	3.2	6.5	

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	4	2	0	6	7	0	2	9	0	1	2	3	0	0	0	0	18
07:15 AM	2	1	0	3	0	0	2	2	0	0	0	0	0	0	0	0	5
07:30 AM	0	2	0	2	0	0	0	0	0	1	0	1	0	1	0	1	4
07:45 AM	0	2	0	2	0	0	0	0	0	5	1	6	0	0	1	1	9
Total Volume	6	7	0	13	7	0	4	11	0	7	3	10	0	1	1	2	36
% App. Total	46.2	53.8	0		63.6	0	36.4		0	70	30		0	50	50		
PHF	.375	.875	.000	.542	.250	.000	.500	.306	.000	.350	.375	.417	.000	.250	.250	.500	.500

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	4	2	0	6	7	0	2	9	0	1	2	3	0	0	0	0
+15 mins.	2	1	0	3	0	0	2	2	0	0	0	0	0	0	0	0
+30 mins.	0	2	0	2	0	0	0	0	0	1	0	1	0	1	0	1
+45 mins.	0	2	0	2	0	0	0	0	0	5	1	6	0	0	1	1
Total Volume	6	7	0	13	7	0	4	11	0	7	3	10	0	1	1	2
% App. Total	46.2	53.8	0		63.6	0	36.4		0	70	30		0	50	50	
PHF	.375	.875	.000	.542	.250	.000	.500	.306	.000	.350	.375	.417	.000	.250	.250	.500

City of San Bernardino
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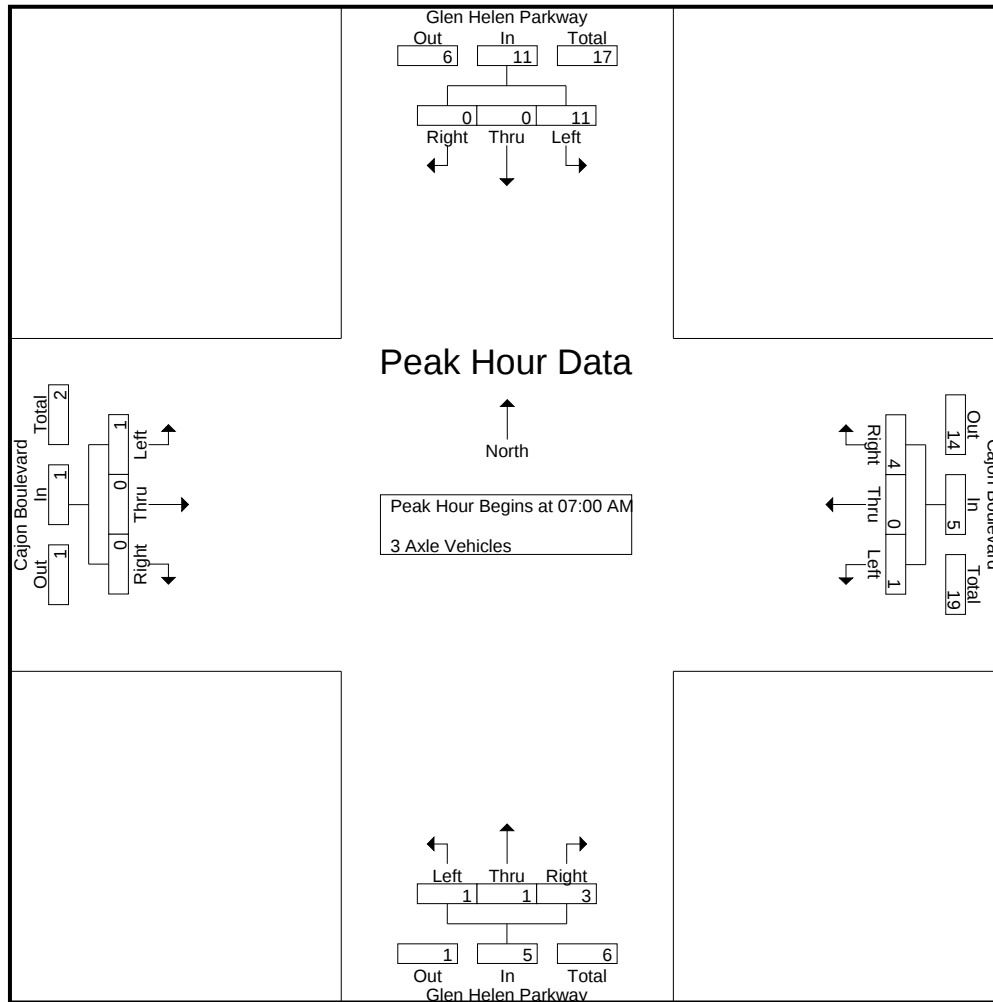
Groups Printed- 3 Axle Vehicles

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	0	0	1	0	0	2	2	0	0	1	1	0	0	0	0	4
07:15 AM	3	0	0	3	0	0	1	1	0	0	0	0	0	0	0	0	4
07:30 AM	2	0	0	2	1	0	0	1	1	1	0	2	1	0	0	1	6
07:45 AM	5	0	0	5	0	0	1	1	0	0	2	2	0	0	0	0	8
Total	11	0	0	11	1	0	4	5	1	1	3	5	1	0	0	1	22
08:00 AM	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
08:15 AM	0	0	2	2	0	0	1	1	0	0	0	0	1	0	0	1	4
08:30 AM	4	0	0	4	0	0	3	3	0	0	4	4	0	0	0	0	11
08:45 AM	3	0	0	3	2	0	2	4	0	0	2	2	0	0	0	0	9
Total	11	0	2	13	2	0	6	8	0	0	6	6	1	0	0	1	28
Grand Total	22	0	2	24	3	0	10	13	1	1	9	11	2	0	0	2	50
Apprch %	91.7	0	8.3		23.1	0	76.9		9.1	9.1	81.8		100	0	0		
Total %	44	0	4	48	6	0	20	26	2	2	18	22	4	0	0	4	

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	0	0	1	0	0	2	2	0	0	1	1	0	0	0	0	4
07:15 AM	3	0	0	3	0	0	1	1	0	0	0	0	0	0	0	0	4
07:30 AM	2	0	0	2	1	0	0	1	1	1	0	2	1	0	0	1	6
07:45 AM	5	0	0	5	0	0	1	1	0	0	2	2	0	0	0	0	8
Total Volume	11	0	0	11	1	0	4	5	1	1	3	5	1	0	0	1	22
% App. Total	100	0	0		20	0	80		20	20	60		100	0	0		
PHF	.550	.000	.000	.550	.250	.000	.500	.625	.250	.250	.375	.625	.250	.000	.000	.250	.688

City of San Bernardino
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	1	0	0	1	0	0	2	2	0	0	1	1	0	0	0	0
+15 mins.	3	0	0	3	0	0	1	1	0	0	0	0	0	0	0	0
+30 mins.	2	0	0	2	1	0	0	1	1	1	0	2	1	0	0	1
+45 mins.	5	0	0	5	0	0	1	1	0	0	2	2	0	0	0	0
Total Volume	11	0	0	11	1	0	4	5	1	1	3	5	1	0	0	1
% App. Total	100	0	0		20	0	80		20	20	60		100	0	0	
PHF	.550	.000	.000	.550	.250	.000	.500	.625	.250	.250	.375	.625	.250	.000	.000	.250

City of San Bernardino
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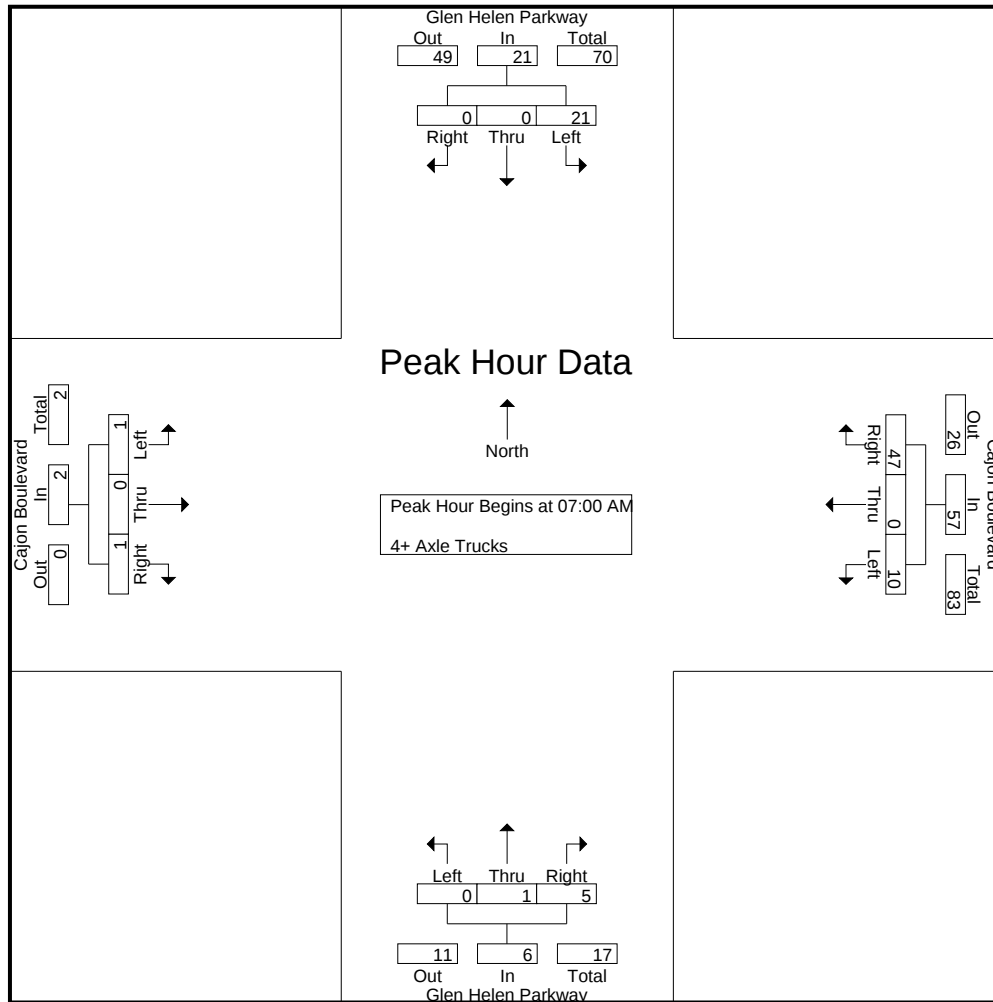
Groups Printed- 4+ Axle Trucks

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	5	0	0	5	1	0	13	14	0	1	0	1	1	0	0	1	21
07:15 AM	3	0	0	3	5	0	14	19	0	0	3	3	0	0	0	0	25
07:30 AM	4	0	0	4	3	0	17	20	0	0	2	2	0	0	1	1	27
07:45 AM	9	0	0	9	1	0	3	4	0	0	0	0	0	0	0	0	13
Total	21	0	0	21	10	0	47	57	0	1	5	6	1	0	1	2	86
08:00 AM	8	0	0	8	1	0	8	9	0	0	1	1	1	0	1	2	20
08:15 AM	8	0	0	8	1	0	4	5	0	0	0	0	0	0	0	0	13
08:30 AM	6	0	0	6	0	0	7	7	0	0	0	0	0	0	0	0	13
08:45 AM	3	0	0	3	1	0	12	13	0	0	2	2	0	0	0	0	18
Total	25	0	0	25	3	0	31	34	0	0	3	3	1	0	1	2	64
Grand Total	46	0	0	46	13	0	78	91	0	1	8	9	2	0	2	4	150
Apprch %	100	0	0		14.3	0	85.7		0	11.1	88.9		50	0	50		
Total %	30.7	0	0	30.7	8.7	0	52	60.7	0	0.7	5.3	6	1.3	0	1.3	2.7	

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	5	0	0	5	1	0	13	14	0	1	0	1	1	0	0	1	21
07:15 AM	3	0	0	3	5	0	14	19	0	0	3	3	0	0	0	0	25
07:30 AM	4	0	0	4	3	0	17	20	0	0	2	2	0	0	1	1	27
07:45 AM	9	0	0	9	1	0	3	4	0	0	0	0	0	0	0	0	13
Total Volume	21	0	0	21	10	0	47	57	0	1	5	6	1	0	1	2	86
% App. Total	100	0	0		17.5	0	82.5		0	16.7	83.3		50	0	50		
PHF	.583	.000	.000	.583	.500	.000	.691	.713	.000	.250	.417	.500	.250	.000	.250	.500	.796

City of San Bernardino
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	5	0	0	5	1	0	13	14	0	1	0	1	1	0	0	1
+15 mins.	3	0	0	3	5	0	14	19	0	0	3	3	0	0	0	0
+30 mins.	4	0	0	4	3	0	17	20	0	0	2	2	0	0	1	1
+45 mins.	9	0	0	9	1	0	3	4	0	0	0	0	0	0	0	0
Total Volume	21	0	0	21	10	0	47	57	0	1	5	6	1	0	1	2
% App. Total	100	0	0		17.5	0	82.5		0	16.7	83.3		50	0	50	
PHF	.583	.000	.000	.583	.500	.000	.691	.713	.000	.250	.417	.500	.250	.000	.250	.500

City of San Bernardino
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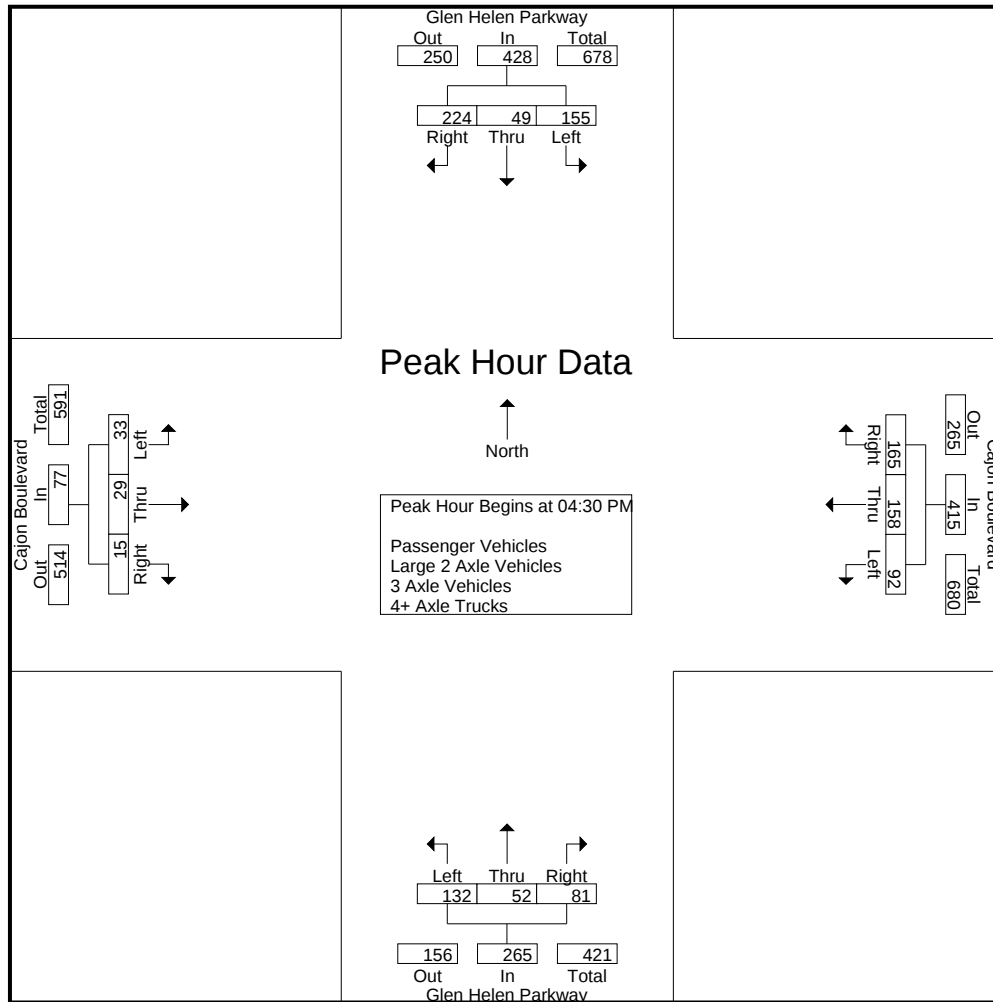
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	33	9	38	80	25	29	46	100	18	18	14	50	14	13	11	38	268
04:15 PM	40	11	41	92	19	33	42	94	23	8	15	46	11	9	8	28	260
04:30 PM	33	13	50	96	34	34	49	117	22	14	24	60	11	5	2	18	291
04:45 PM	36	13	59	108	21	47	50	118	40	17	19	76	3	9	5	17	319
Total	142	46	188	376	99	143	187	429	103	57	72	232	39	36	26	101	1138
05:00 PM	43	10	47	100	20	42	32	94	45	14	13	72	11	8	2	21	287
05:15 PM	43	13	68	124	17	35	34	86	25	7	25	57	8	7	6	21	288
05:30 PM	44	7	71	122	20	40	41	101	18	11	19	48	5	7	0	12	283
05:45 PM	62	12	64	138	15	33	37	85	12	8	12	32	10	7	1	18	273
Total	192	42	250	484	72	150	144	366	100	40	69	209	34	29	9	72	1131
Grand Total	334	88	438	860	171	293	331	795	203	97	141	441	73	65	35	173	2269
Apprch %	38.8	10.2	50.9		21.5	36.9	41.6		46	22	32		42.2	37.6	20.2		
Total %	14.7	3.9	19.3	37.9	7.5	12.9	14.6	35	8.9	4.3	6.2	19.4	3.2	2.9	1.5	7.6	
Passenger Vehicles	239	84	431	754	157	285	278	720	201	91	118	410	72	61	34	167	2051
% Passenger Vehicles	71.6	95.5	98.4	87.7	91.8	97.3	84	90.6	99	93.8	83.7	93	98.6	93.8	97.1	96.5	90.4
Large 2 Axle Vehicles	10	4	5	19	2	1	10	13	2	6	9	17	0	0	1	1	50
% Large 2 Axle Vehicles	3	4.5	1.1	2.2	1.2	0.3	3	1.6	1	6.2	6.4	3.9	0	0	2.9	0.6	2.2
3 Axle Vehicles	13	0	1	14	2	2	5	9	0	0	2	2	1	0	0	1	26
% 3 Axle Vehicles	3.9	0	0.2	1.6	1.2	0.7	1.5	1.1	0	0	1.4	0.5	1.4	0	0	0.6	1.1
4+ Axle Trucks	72	0	1	73	10	5	38	53	0	0	12	12	0	4	0	4	142
% 4+ Axle Trucks	21.6	0	0.2	8.5	5.8	1.7	11.5	6.7	0	0	8.5	2.7	0	6.2	0	2.3	6.3

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	33	13	50	96	34	34	49	117	22	14	24	60	11	5	2	18	291
04:45 PM	36	13	59	108	21	47	50	118	40	17	19	76	3	9	5	17	319
05:00 PM	43	10	47	100	20	42	32	94	45	14	13	72	11	8	2	21	287
05:15 PM	43	13	68	124	17	35	34	86	25	7	25	57	8	7	6	21	288
Total Volume	155	49	224	428	92	158	165	415	132	52	81	265	33	29	15	77	1185
% App. Total	36.2	11.4	52.3		22.2	38.1	39.8		49.8	19.6	30.6		42.9	37.7	19.5		
PHF	.901	.942	.824	.863	.676	.840	.825	.879	.733	.765	.810	.872	.750	.806	.625	.917	.929

City of San Bernardino
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				04:30 PM				04:00 PM			
+0 mins.	43	10	47	100	25	29	46	100	22	14	24	60	14	13	11	38
+15 mins.	43	13	68	124	19	33	42	94	40	17	19	76	11	9	8	28
+30 mins.	44	7	71	122	34	34	49	117	45	14	13	72	11	5	2	18
+45 mins.	62	12	64	138	21	47	50	118	25	7	25	57	3	9	5	17
Total Volume	192	42	250	484	99	143	187	429	132	52	81	265	39	36	26	101
% App. Total	39.7	8.7	51.7		23.1	33.3	43.6		49.8	19.6	30.6		38.6	35.6	25.7	
PHF	.774	.808	.880	.877	.728	.761	.935	.909	.733	.765	.810	.872	.696	.692	.591	.664

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Cajon Boulevard
Weather: Clear

File Name : 03_SBC_Glen_Caj PM
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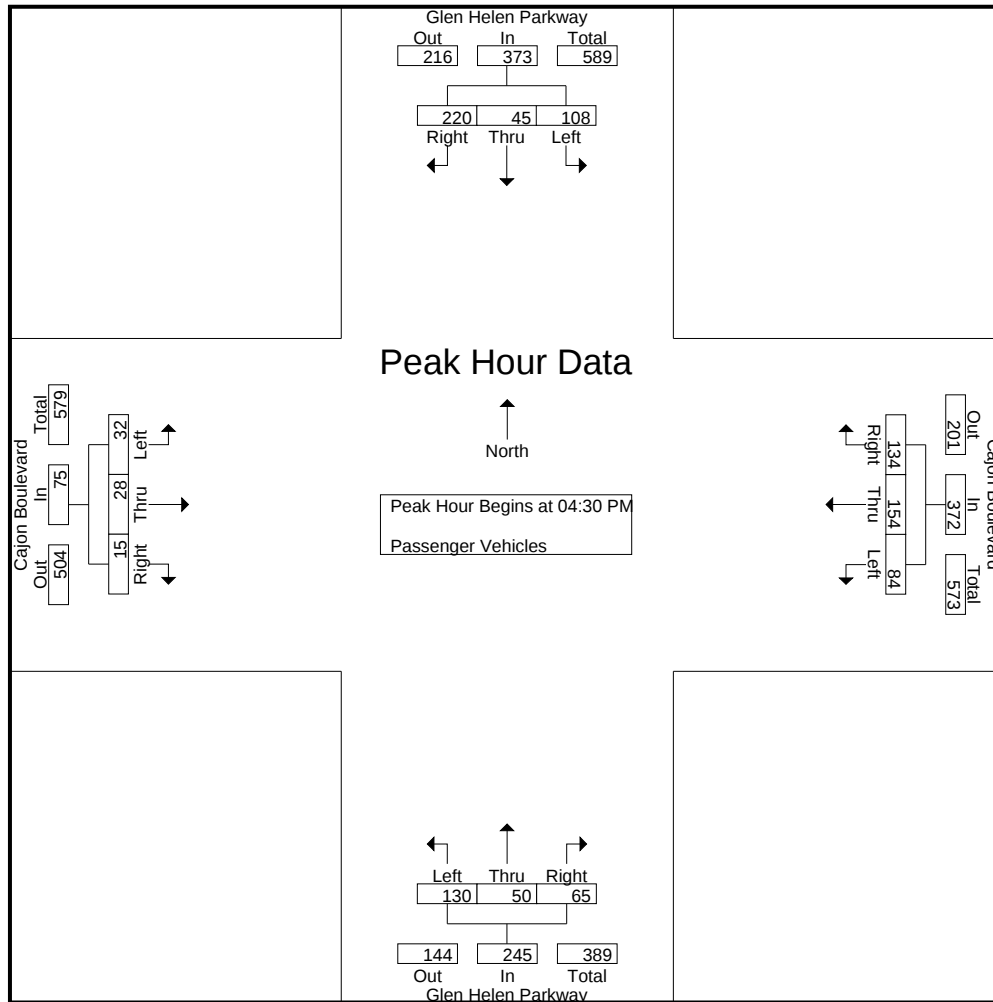
Groups Printed- Passenger Vehicles

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	21	9	37	67	22	27	37	86	18	15	11	44	14	10	10	34	231
04:15 PM	29	11	41	81	19	32	39	90	23	7	14	44	11	9	8	28	243
04:30 PM	24	12	49	85	32	34	38	104	22	14	22	58	11	5	2	18	265
04:45 PM	26	13	58	97	19	43	38	100	40	16	17	73	3	8	5	16	286
Total	100	45	185	330	92	136	152	380	103	52	64	219	39	32	25	96	1025
05:00 PM	29	8	46	83	18	42	28	88	43	14	11	68	11	8	2	21	260
05:15 PM	29	12	67	108	15	35	30	80	25	6	15	46	7	7	6	20	254
05:30 PM	40	7	70	117	19	40	36	95	18	11	17	46	5	7	0	12	270
05:45 PM	41	12	63	116	13	32	32	77	12	8	11	31	10	7	1	18	242
Total	139	39	246	424	65	149	126	340	98	39	54	191	33	29	9	71	1026
Grand Total	239	84	431	754	157	285	278	720	201	91	118	410	72	61	34	167	2051
Apprch %	31.7	11.1	57.2		21.8	39.6	38.6		49	22.2	28.8		43.1	36.5	20.4		
Total %	11.7	4.1	21	36.8	7.7	13.9	13.6	35.1	9.8	4.4	5.8	20	3.5	3	1.7	8.1	

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	24	12	49	85	32	34	38	104	22	14	22	58	11	5	2	18	265
04:45 PM	26	13	58	97	19	43	38	100	40	16	17	73	3	8	5	16	286
05:00 PM	29	8	46	83	18	42	28	88	43	14	11	68	11	8	2	21	260
05:15 PM	29	12	67	108	15	35	30	80	25	6	15	46	7	7	6	20	254
Total Volume	108	45	220	373	84	154	134	372	130	50	65	245	32	28	15	75	1065
% App. Total	29	12.1	59		22.6	41.4	36		53.1	20.4	26.5		42.7	37.3	20		
PHF	.931	.865	.821	.863	.656	.895	.882	.894	.756	.781	.739	.839	.727	.875	.625	.893	.931

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Cajon Boulevard
Weather: Clear

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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	24	12	49	85	32	34	38	104	22	14	22	58	11	5	2	18
+15 mins.	26	13	58	97	19	43	38	100	40	16	17	73	3	8	5	16
+30 mins.	29	8	46	83	18	42	28	88	43	14	11	68	11	8	2	21
+45 mins.	29	12	67	108	15	35	30	80	25	6	15	46	7	7	6	20
Total Volume	108	45	220	373	84	154	134	372	130	50	65	245	32	28	15	75
% App. Total	29	12.1	59		22.6	41.4	36		53.1	20.4	26.5		42.7	37.3	20	
PHF	.931	.865	.821	.863	.656	.895	.882	.894	.756	.781	.739	.839	.727	.875	.625	.893

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Cajon Boulevard
Weather: Clear

File Name : 03_SBC_Glen_Caj PM
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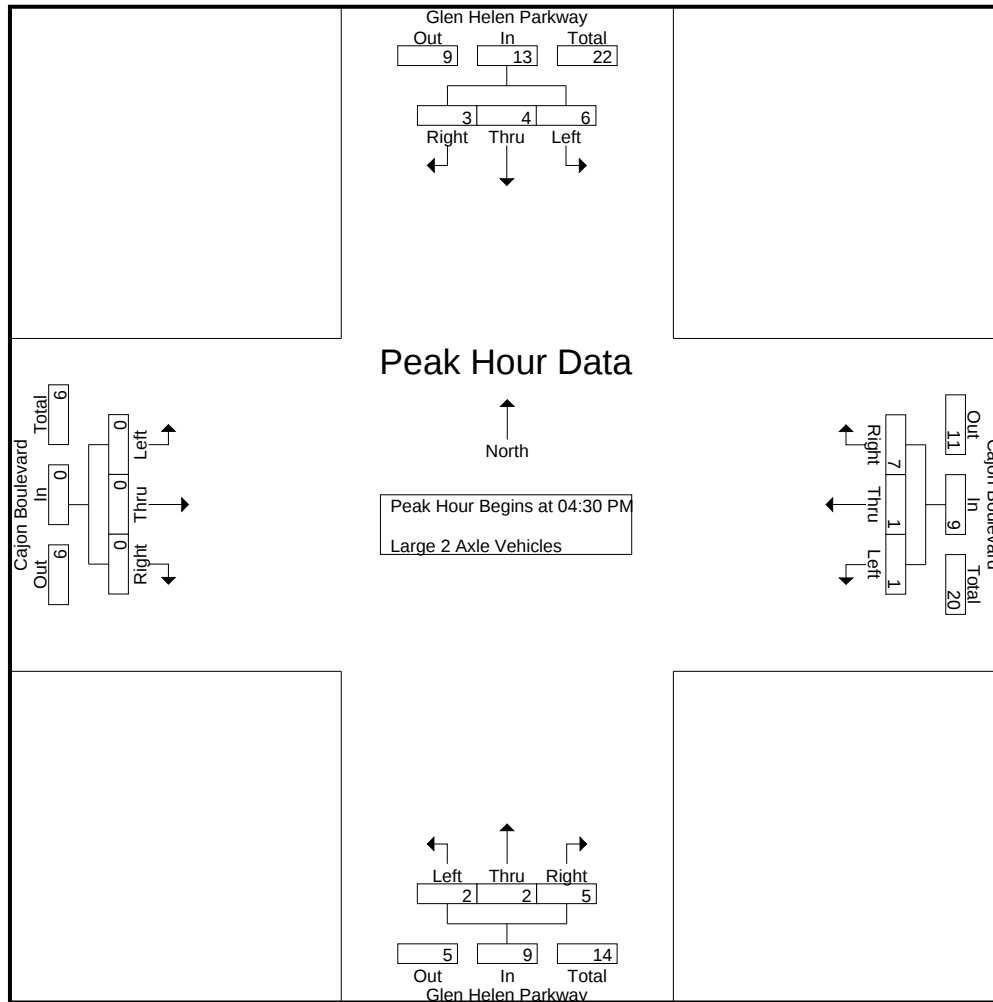
Groups Printed- Large 2 Axle Vehicles

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	1	0	0	1	0	3	2	5	0	0	1	1	7
04:15 PM	2	0	0	2	0	0	0	0	0	1	1	2	0	0	0	0	4
04:30 PM	0	1	1	2	0	0	3	3	0	0	0	0	0	0	0	0	5
04:45 PM	1	0	1	2	0	1	3	4	0	1	0	1	0	0	0	0	7
Total	3	1	2	6	1	1	6	8	0	5	3	8	0	0	1	1	23
05:00 PM	4	2	1	7	1	0	0	1	2	0	0	2	0	0	0	0	10
05:15 PM	1	1	0	2	0	0	1	1	0	1	5	6	0	0	0	0	9
05:30 PM	0	0	1	1	0	0	2	2	0	0	1	1	0	0	0	0	4
05:45 PM	2	0	1	3	0	0	1	1	0	0	0	0	0	0	0	0	4
Total	7	3	3	13	1	0	4	5	2	1	6	9	0	0	0	0	27
Grand Total	10	4	5	19	2	1	10	13	2	6	9	17	0	0	1	1	50
Apprch %	52.6	21.1	26.3		15.4	7.7	76.9		11.8	35.3	52.9		0	0	100		
Total %	20	8	10	38	4	2	20	26	4	12	18	34	0	0	2	2	

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	1	1	2	0	0	3	3	0	0	0	0	0	0	0	0	5
04:45 PM	1	0	1	2	0	1	3	4	0	1	0	1	0	0	0	0	7
05:00 PM	4	2	1	7	1	0	0	1	2	0	0	2	0	0	0	0	10
05:15 PM	1	1	0	2	0	0	1	1	0	1	5	6	0	0	0	0	9
Total Volume	6	4	3	13	1	1	7	9	2	2	5	9	0	0	0	0	31
% App. Total	46.2	30.8	23.1		11.1	11.1	77.8		22.2	22.2	55.6		0	0	0		
PHF	.375	.500	.750	.464	.250	.250	.583	.563	.250	.500	.250	.375	.000	.000	.000	.000	.775

City of San Bernardino
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	1	1	2	0	0	3	3	0	0	0	0	0	0	0	0
+15 mins.	1	0	1	2	0	1	3	4	0	1	0	1	0	0	0	0
+30 mins.	4	2	1	7	1	0	0	1	2	0	0	2	0	0	0	0
+45 mins.	1	1	0	2	0	0	1	1	0	1	5	6	0	0	0	0
Total Volume	6	4	3	13	1	1	7	9	2	2	5	9	0	0	0	0
% App. Total	46.2	30.8	23.1		11.1	11.1	77.8		22.2	22.2	55.6		0	0	0	
PHF	.375	.500	.750	.464	.250	.250	.583	.563	.250	.500	.250	.375	.000	.000	.000	.000

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Cajon Boulevard
Weather: Clear

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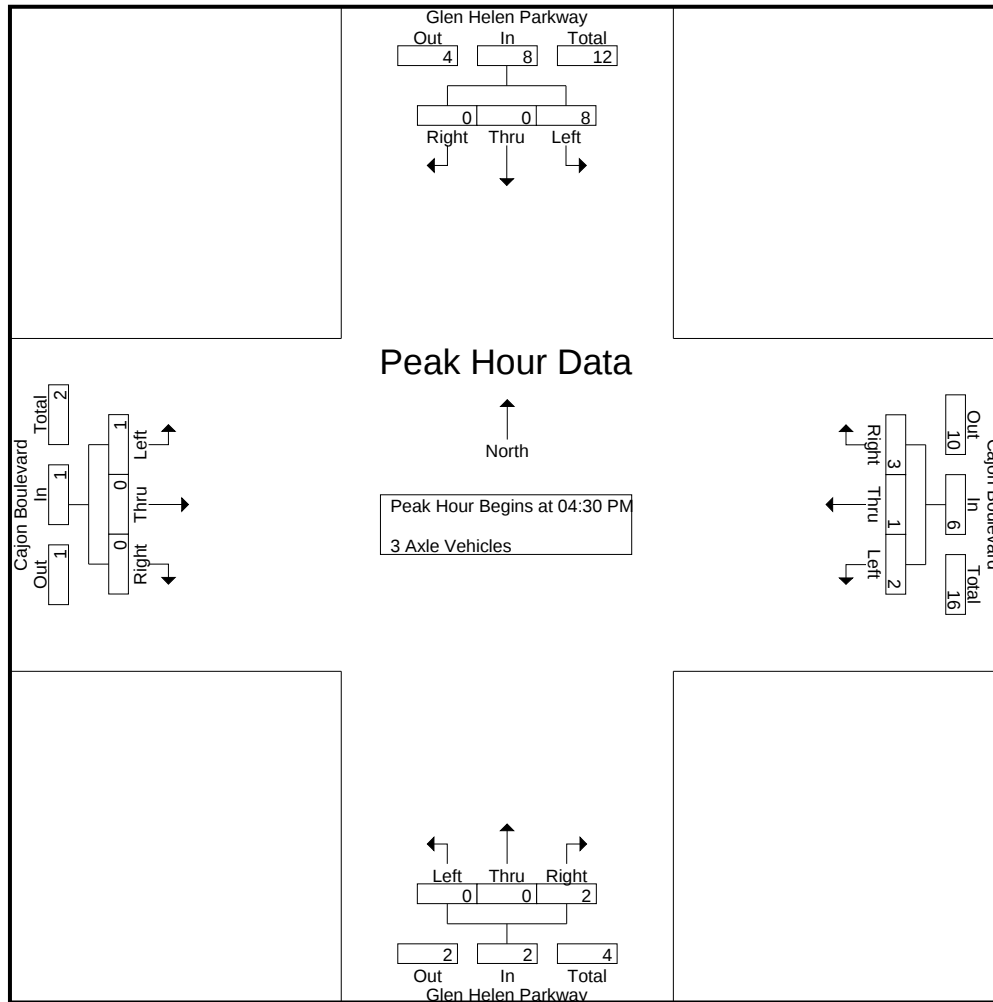
Groups Printed- 3 Axle Vehicles

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	1	1	0	0	2	2	0	0	0	0	0	0	0	0	3
04:15 PM	2	0	0	2	0	1	0	1	0	0	0	0	0	0	0	0	3
04:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
04:45 PM	1	0	0	1	0	1	1	2	0	0	1	1	0	0	0	0	4
Total	3	0	1	4	0	2	4	6	0	0	1	1	0	0	0	0	11
05:00 PM	2	0	0	2	1	0	0	1	0	0	0	0	0	0	0	0	3
05:15 PM	5	0	0	5	1	0	1	2	0	0	1	1	1	0	0	1	9
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	10	0	0	10	2	0	1	3	0	0	1	1	1	0	0	1	15
Grand Total	13	0	1	14	2	2	5	9	0	0	2	2	1	0	0	1	26
Apprch %	92.9	0	7.1		22.2	22.2	55.6		0	0	100		100	0	0		
Total %	50	0	3.8	53.8	7.7	7.7	19.2	34.6	0	0	7.7	7.7	3.8	0	0	3.8	

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
04:45 PM	1	0	0	1	0	1	1	2	0	0	1	1	0	0	0	0	4
05:00 PM	2	0	0	2	1	0	0	1	0	0	0	0	0	0	0	0	3
05:15 PM	5	0	0	5	1	0	1	2	0	0	1	1	1	0	0	1	9
Total Volume	8	0	0	8	2	1	3	6	0	0	2	2	1	0	0	1	17
% App. Total	100	0	0		33.3	16.7	50		0	0	100		100	0	0		
PHF	.400	.000	.000	.400	.500	.250	.750	.750	.000	.000	.500	.500	.250	.000	.000	.250	.472

City of San Bernardino
N/S: Glen Helen Parkway
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Weather: Clear

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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+15 mins.	1	0	0	1	0	1	1	2	0	0	1	1	0	0	0	0
+30 mins.	2	0	0	2	1	0	0	1	0	0	0	0	0	0	0	0
+45 mins.	5	0	0	5	1	0	1	2	0	0	1	1	1	0	0	1
Total Volume	8	0	0	8	2	1	3	6	0	0	2	2	1	0	0	1
% App. Total	100	0	0		33.3	16.7	50		0	0	100		100	0	0	
PHF	.400	.000	.000	.400	.500	.250	.750	.750	.000	.000	.500	.500	.250	.000	.000	.250

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Cajon Boulevard
Weather: Clear

File Name : 03_SBC_Glen_Caj PM
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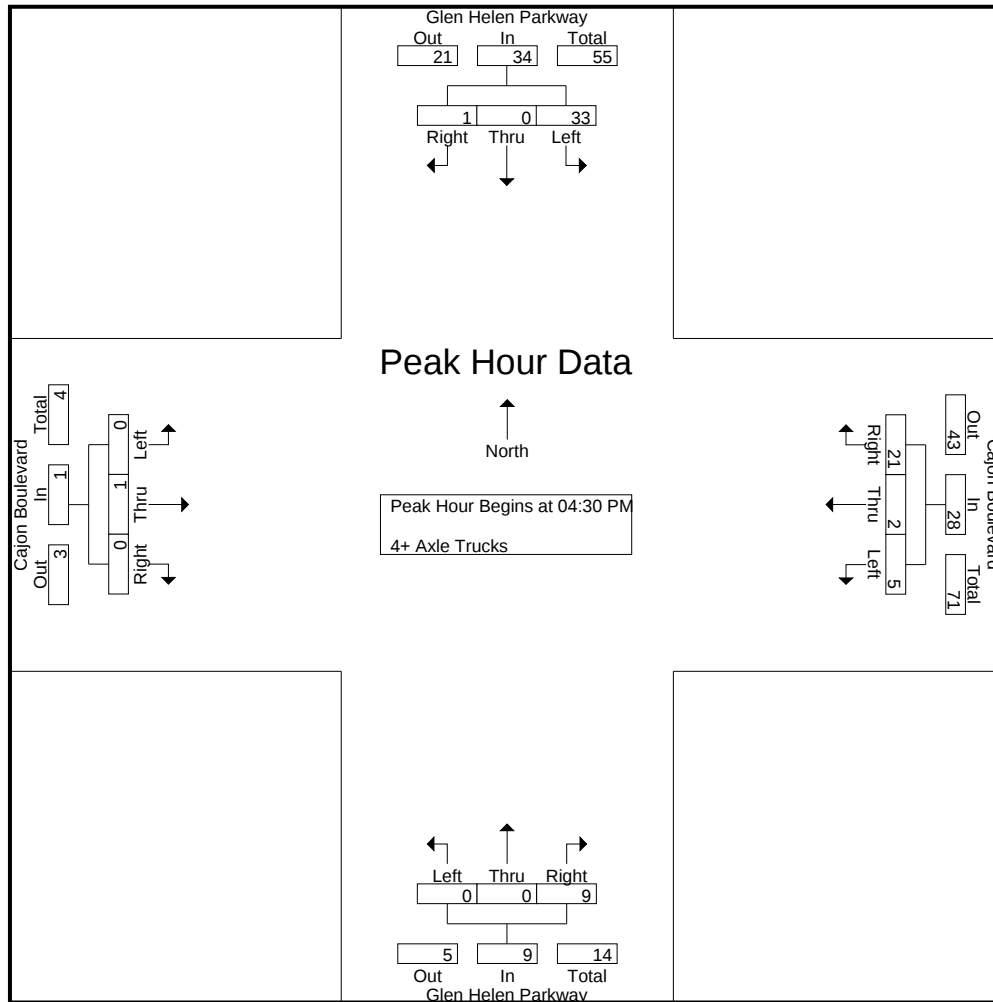
Groups Printed- 4+ Axle Trucks

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	12	0	0	12	2	2	7	11	0	0	1	1	0	3	0	3	27
04:15 PM	7	0	0	7	0	0	3	3	0	0	0	0	0	0	0	0	10
04:30 PM	9	0	0	9	2	0	7	9	0	0	2	2	0	0	0	0	20
04:45 PM	8	0	0	8	2	2	8	12	0	0	1	1	0	1	0	1	22
Total	36	0	0	36	6	4	25	35	0	0	4	4	0	4	0	4	79
05:00 PM	8	0	0	8	0	0	4	4	0	0	2	2	0	0	0	0	14
05:15 PM	8	0	1	9	1	0	2	3	0	0	4	4	0	0	0	0	16
05:30 PM	4	0	0	4	1	0	3	4	0	0	1	1	0	0	0	0	9
05:45 PM	16	0	0	16	2	1	4	7	0	0	1	1	0	0	0	0	24
Total	36	0	1	37	4	1	13	18	0	0	8	8	0	0	0	0	63
Grand Total	72	0	1	73	10	5	38	53	0	0	12	12	0	4	0	4	142
Apprch %	98.6	0	1.4		18.9	9.4	71.7		0	0	100		0	100	0		
Total %	50.7	0	0.7	51.4	7	3.5	26.8	37.3	0	0	8.5	8.5	0	2.8	0	2.8	

	Glen Helen Parkway Southbound				Cajon Boulevard Westbound				Glen Helen Parkway Northbound				Cajon Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	9	0	0	9	2	0	7	9	0	0	2	2	0	0	0	0	20
04:45 PM	8	0	0	8	2	2	8	12	0	0	1	1	0	1	0	1	22
05:00 PM	8	0	0	8	0	0	4	4	0	0	2	2	0	0	0	0	14
05:15 PM	8	0	1	9	1	0	2	3	0	0	4	4	0	0	0	0	16
Total Volume	33	0	1	34	5	2	21	28	0	0	9	9	0	1	0	1	72
% App. Total	97.1	0	2.9		17.9	7.1	75		0	0	100		0	100	0		
PHF	.917	.000	.250	.944	.625	.250	.656	.583	.000	.000	.563	.563	.000	.250	.000	.250	.818

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Cajon Boulevard
Weather: Clear

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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	9	0	0	9	2	0	7	9	0	0	2	2	0	0	0	0
+15 mins.	8	0	0	8	2	2	8	12	0	0	1	1	0	1	0	1
+30 mins.	8	0	0	8	0	0	4	4	0	0	2	2	0	0	0	0
+45 mins.	8	0	1	9	1	0	2	3	0	0	4	4	0	0	0	0
Total Volume	33	0	1	34	5	2	21	28	0	0	9	9	0	1	0	1
% App. Total	97.1	0	2.9		17.9	7.1	75		0	0	100		0	100	0	
PHF	.917	.000	.250	.944	.625	.250	.656	.583	.000	.000	.563	.563	.000	.250	.000	.250

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur AM
Site Code : 22523027
Start Date : 1/11/2023
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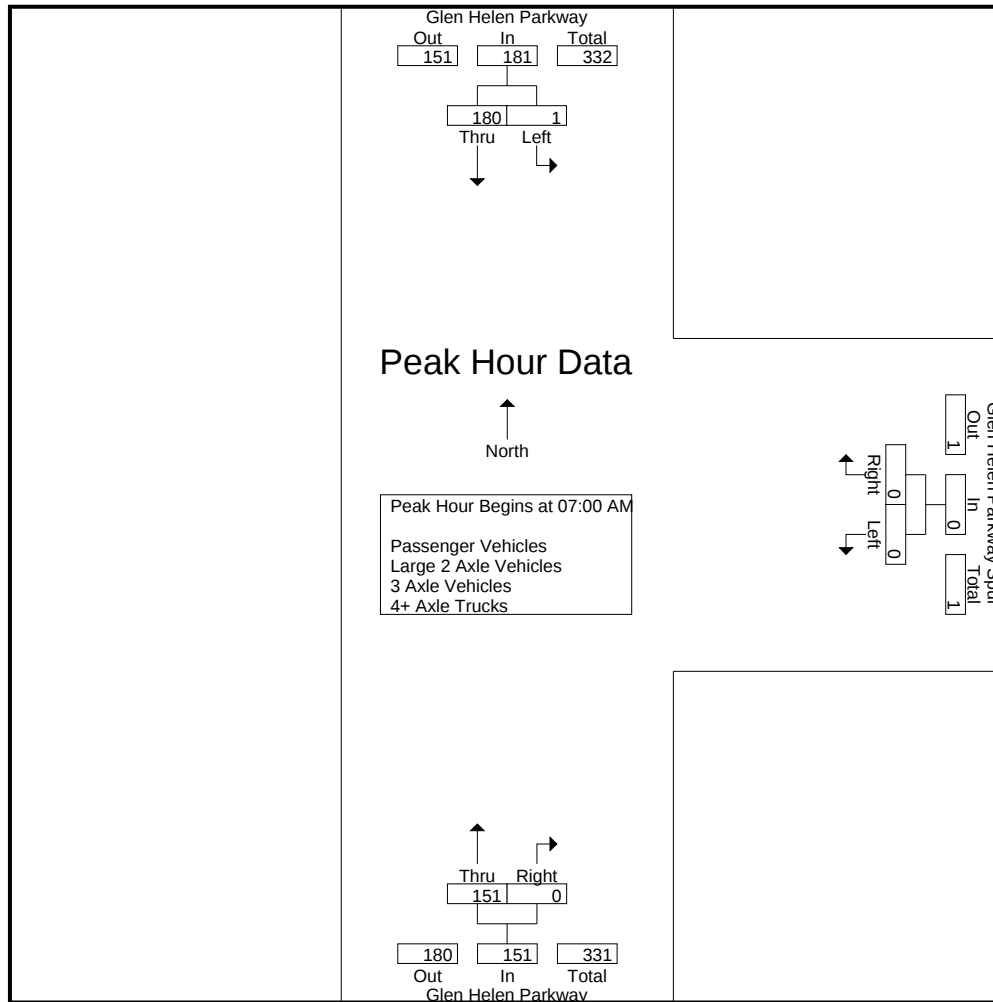
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	42	42	0	0	0	37	0	37	79
07:15 AM	0	46	46	0	0	0	28	0	28	74
07:30 AM	1	46	47	0	0	0	45	0	45	92
07:45 AM	0	46	46	0	0	0	41	0	41	87
Total	1	180	181	0	0	0	151	0	151	332
08:00 AM	0	22	22	0	0	0	32	0	32	54
08:15 AM	0	24	24	0	0	0	32	0	32	56
08:30 AM	0	28	28	0	0	0	31	0	31	59
08:45 AM	0	34	34	0	0	0	32	0	32	66
Total	0	108	108	0	0	0	127	0	127	235
Grand Total	1	288	289	0	0	0	278	0	278	567
Apprch %	0.3	99.7		0	0		100	0		
Total %	0.2	50.8	51	0	0	0	49	0	49	
Passenger Vehicles	1	251	252	0	0	0	242	0	242	494
% Passenger Vehicles	100	87.2	87.2	0	0	0	87.1	0	87.1	87.1
Large 2 Axle Vehicles	0	19	19	0	0	0	18	0	18	37
% Large 2 Axle Vehicles	0	6.6	6.6	0	0	0	6.5	0	6.5	6.5
3 Axle Vehicles	0	3	3	0	0	0	9	0	9	12
% 3 Axle Vehicles	0	1	1	0	0	0	3.2	0	3.2	2.1
4+ Axle Trucks	0	15	15	0	0	0	9	0	9	24
% 4+ Axle Trucks	0	5.2	5.2	0	0	0	3.2	0	3.2	4.2

	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	42	42	0	0	0	37	0	37	79
07:15 AM	0	46	46	0	0	0	28	0	28	74
07:30 AM	1	46	47	0	0	0	45	0	45	92
07:45 AM	0	46	46	0	0	0	41	0	41	87
Total Volume	1	180	181	0	0	0	151	0	151	332
% App. Total	0.6	99.4		0	0		100	0		
PHF	.250	.978	.963	.000	.000	.000	.839	.000	.839	.902

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur AM
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	42	42	0	0	0	37	0	37
+15 mins.	0	46	46	0	0	0	28	0	28
+30 mins.	1	46	47	0	0	0	45	0	45
+45 mins.	0	46	46	0	0	0	41	0	41
Total Volume	1	180	181	0	0	0	151	0	151
% App. Total	0.6	99.4		0	0		100	0	
PHF	.250	.978	.963	.000	.000	.000	.839	.000	.839

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur AM
Site Code : 22523027
Start Date : 1/11/2023
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Groups Printed- Passenger Vehicles

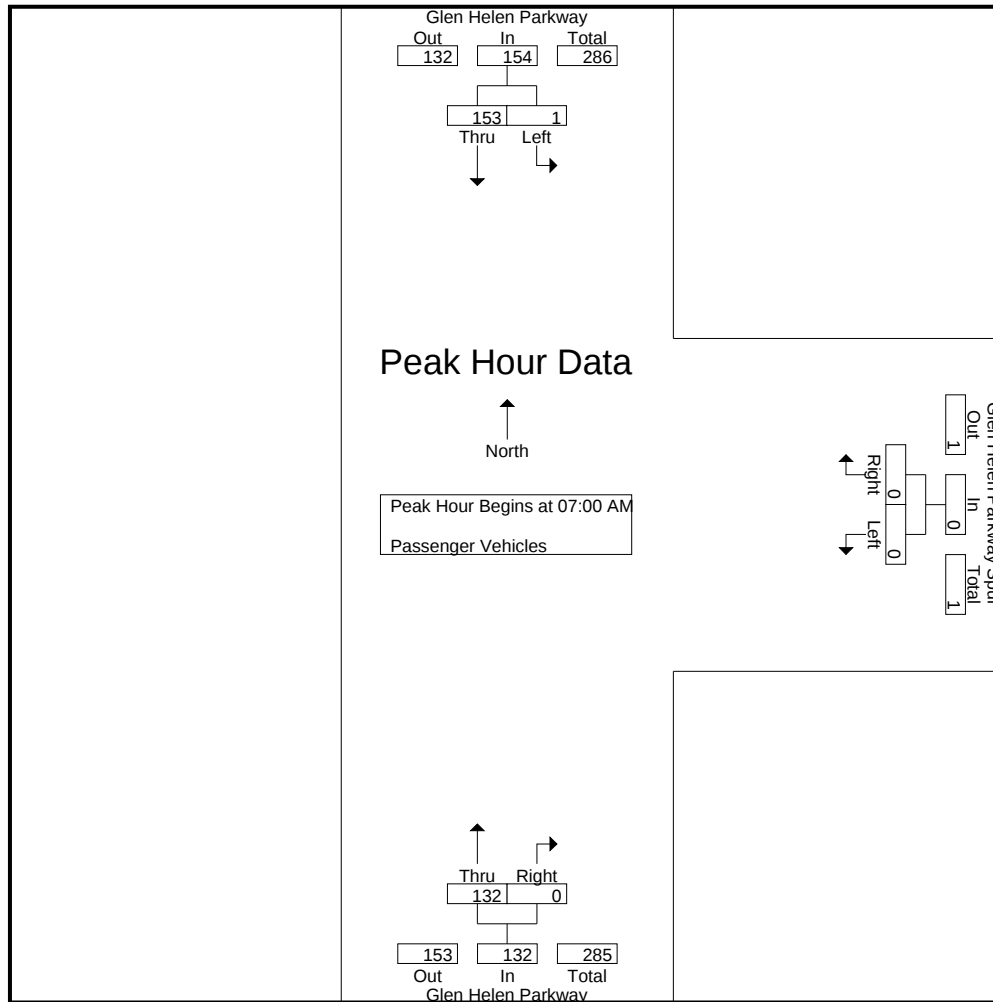
	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	32	32	0	0	0	32	0	32	64
07:15 AM	0	40	40	0	0	0	25	0	25	65
07:30 AM	1	39	40	0	0	0	40	0	40	80
07:45 AM	0	42	42	0	0	0	35	0	35	77
Total	1	153	154	0	0	0	132	0	132	286
08:00 AM	0	19	19	0	0	0	28	0	28	47
08:15 AM	0	22	22	0	0	0	29	0	29	51
08:30 AM	0	28	28	0	0	0	27	0	27	55
08:45 AM	0	29	29	0	0	0	26	0	26	55
Total	0	98	98	0	0	0	110	0	110	208
Grand Total	1	251	252	0	0	0	242	0	242	494
Apprch %	0.4	99.6		0	0		100	0		
Total %	0.2	50.8	51	0	0	0	49	0	49	

	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	32	32	0	0	0	32	0	32	64
07:15 AM	0	40	40	0	0	0	25	0	25	65
07:30 AM	1	39	40	0	0	0	40	0	40	80
07:45 AM	0	42	42	0	0	0	35	0	35	77
Total Volume	1	153	154	0	0	0	132	0	132	286
% App. Total	0.6	99.4		0	0		100	0		
PHF	.250	.911	.917	.000	.000	.000	.825	.000	.825	.894

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:00 AM

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur AM
Site Code : 22523027
Start Date : 1/11/2023
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	32	32	0	0	0	32	0	32
+15 mins.	0	40	40	0	0	0	25	0	25
+30 mins.	1	39	40	0	0	0	40	0	40
+45 mins.	0	42	42	0	0	0	35	0	35
Total Volume	1	153	154	0	0	0	132	0	132
% App. Total	0.6	99.4		0	0		100	0	
PHF	.250	.911	.917	.000	.000	.000	.825	.000	.825

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur AM
Site Code : 22523027
Start Date : 1/11/2023
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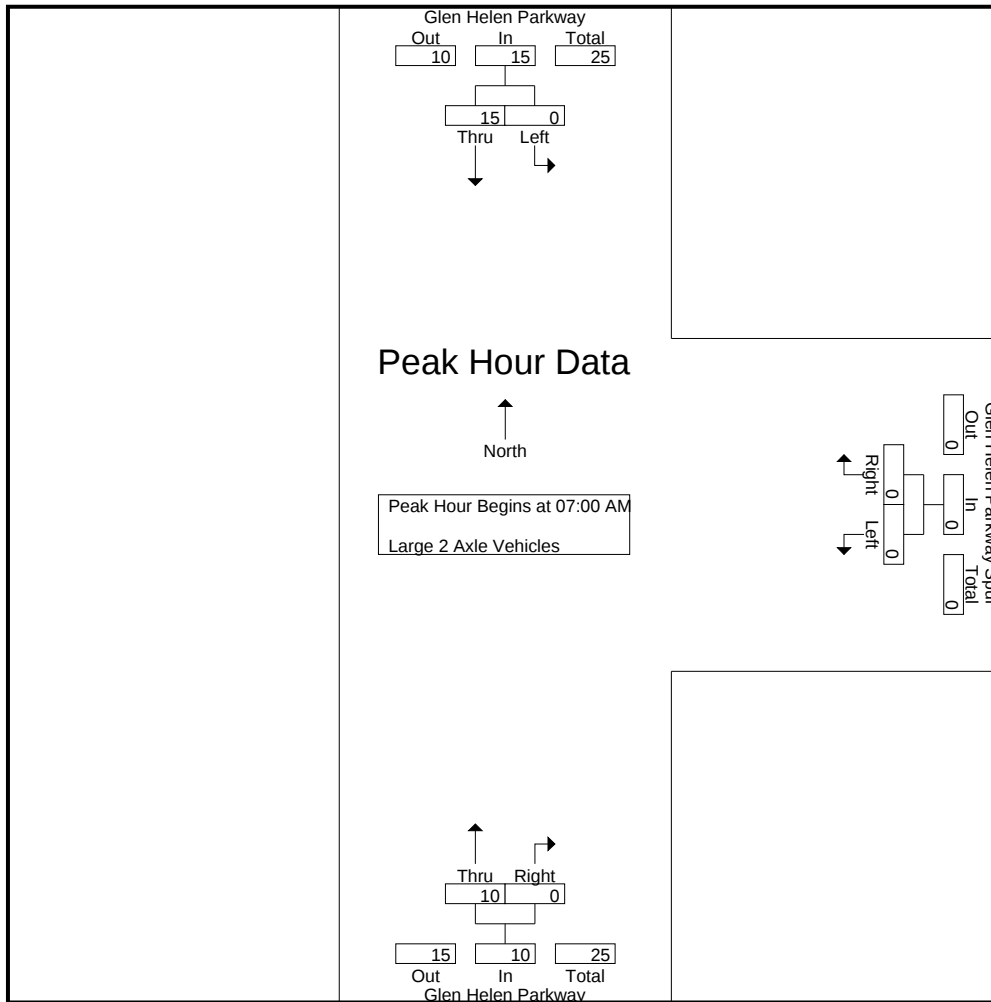
Groups Printed- Large 2 Axle Vehicles

	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	9	9	0	0	0	3	0	3	12
07:15 AM	0	1	1	0	0	0	0	0	0	1
07:30 AM	0	2	2	0	0	0	1	0	1	3
07:45 AM	0	3	3	0	0	0	6	0	6	9
Total	0	15	15	0	0	0	10	0	10	25
08:00 AM	0	1	1	0	0	0	3	0	3	4
08:15 AM	0	1	1	0	0	0	3	0	3	4
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	2	2	0	0	0	2	0	2	4
Total	0	4	4	0	0	0	8	0	8	12
Grand Total	0	19	19	0	0	0	18	0	18	37
Apprch %	0	100		0	0		100	0		
Total %	0	51.4	51.4	0	0	0	48.6	0	48.6	

	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	9	9	0	0	0	3	0	3	12
07:15 AM	0	1	1	0	0	0	0	0	0	1
07:30 AM	0	2	2	0	0	0	1	0	1	3
07:45 AM	0	3	3	0	0	0	6	0	6	9
Total Volume	0	15	15	0	0	0	10	0	10	25
% App. Total	0	100		0	0		100	0		
PHF	.000	.417	.417	.000	.000	.000	.417	.000	.417	.521

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur AM
Site Code : 22523027
Start Date : 1/11/2023
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	9	9	0	0	0	3	0	3
+15 mins.	0	1	1	0	0	0	0	0	0
+30 mins.	0	2	2	0	0	0	1	0	1
+45 mins.	0	3	3	0	0	0	6	0	6
Total Volume	0	15	15	0	0	0	10	0	10
% App. Total	0	100		0	0		100	0	
PHF	.000	.417	.417	.000	.000	.000	.417	.000	.417

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur AM
Site Code : 22523027
Start Date : 1/11/2023
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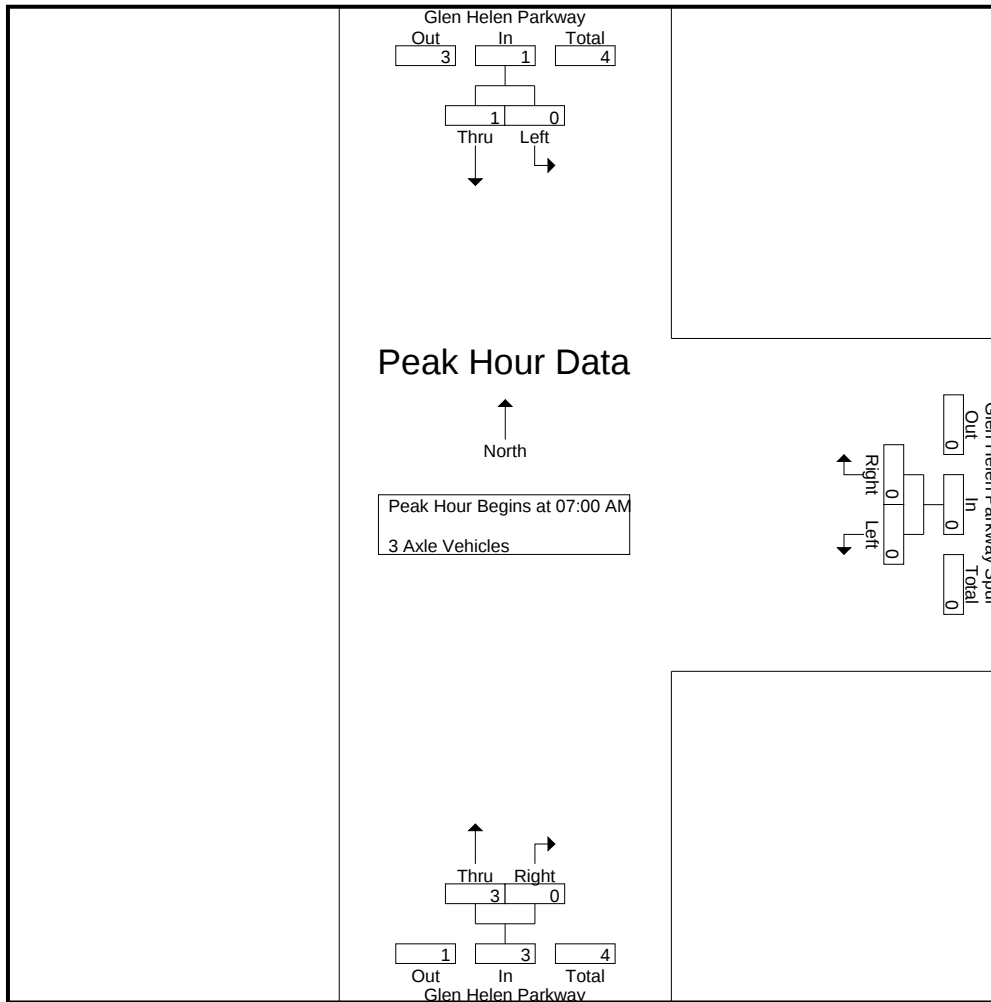
Groups Printed- 3 Axle Vehicles

	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	1	1	0	0	0	2	0	2	3
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	0	0	3	0	3	4
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	4	0	4	4
08:45 AM	0	2	2	0	0	0	2	0	2	4
Total	0	2	2	0	0	0	6	0	6	8
Grand Total	0	3	3	0	0	0	9	0	9	12
Apprch %	0	100		0	0		100	0		
Total %	0	25	25	0	0	0	75	0	75	

	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	1	0	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	1	1	0	0	0	2	0	2	3
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	3	0	3	4
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.375	.000	.375	.333

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur AM
Site Code : 22523027
Start Date : 1/11/2023
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	1	0	0	0	2	0	2
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	3	0	3
% App. Total	0	100		0	0		100	0	
PHF	.000	.250	.250	.000	.000	.000	.375	.000	.375

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur AM
Site Code : 22523027
Start Date : 1/11/2023
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Groups Printed- 4+ Axle Trucks

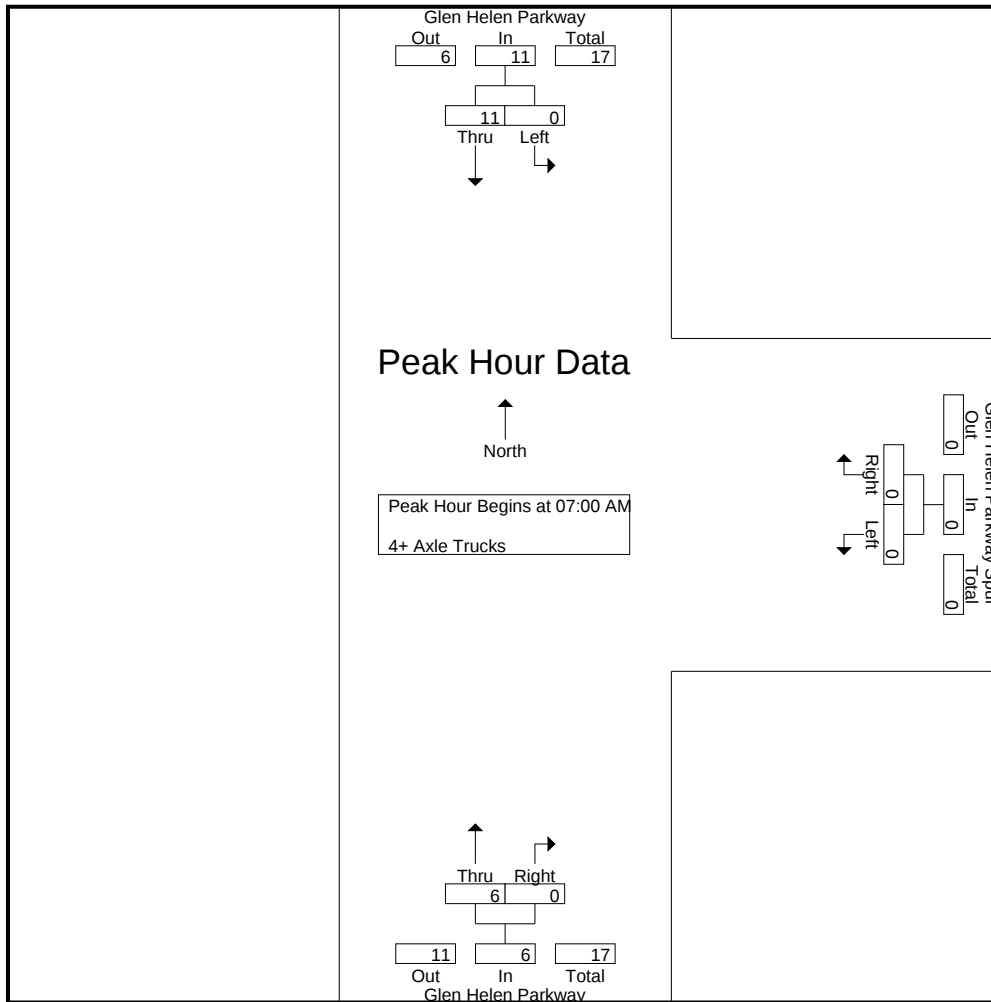
	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	1	0	0	0	1	0	1	2
07:15 AM	0	5	5	0	0	0	3	0	3	8
07:30 AM	0	4	4	0	0	0	2	0	2	6
07:45 AM	0	1	1	0	0	0	0	0	0	1
Total	0	11	11	0	0	0	6	0	6	17
08:00 AM	0	2	2	0	0	0	1	0	1	3
08:15 AM	0	1	1	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	1	0	0	0	2	0	2	3
Total	0	4	4	0	0	0	3	0	3	7
Grand Total	0	15	15	0	0	0	9	0	9	24
Apprch %	0	100		0	0		100	0		
Total %	0	62.5	62.5	0	0	0	37.5	0	37.5	

	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	1	0	0	0	1	0	1	2
07:15 AM	0	5	5	0	0	0	3	0	3	8
07:30 AM	0	4	4	0	0	0	2	0	2	6
07:45 AM	0	1	1	0	0	0	0	0	0	1
Total Volume	0	11	11	0	0	0	6	0	6	17
% App. Total	0	100		0	0		100	0		
PHF	.000	.550	.550	.000	.000	.000	.500	.000	.500	.531

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:00 AM

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur AM
Site Code : 22523027
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	1	1	0	0	0	1	0	1
+15 mins.	0	5	5	0	0	0	3	0	3
+30 mins.	0	4	4	0	0	0	2	0	2
+45 mins.	0	1	1	0	0	0	0	0	0
Total Volume	0	11	11	0	0	0	6	0	6
% App. Total	0	100		0	0		100	0	
PHF	.000	.550	.550	.000	.000	.000	.500	.000	.500

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur PM
Site Code : 22523027
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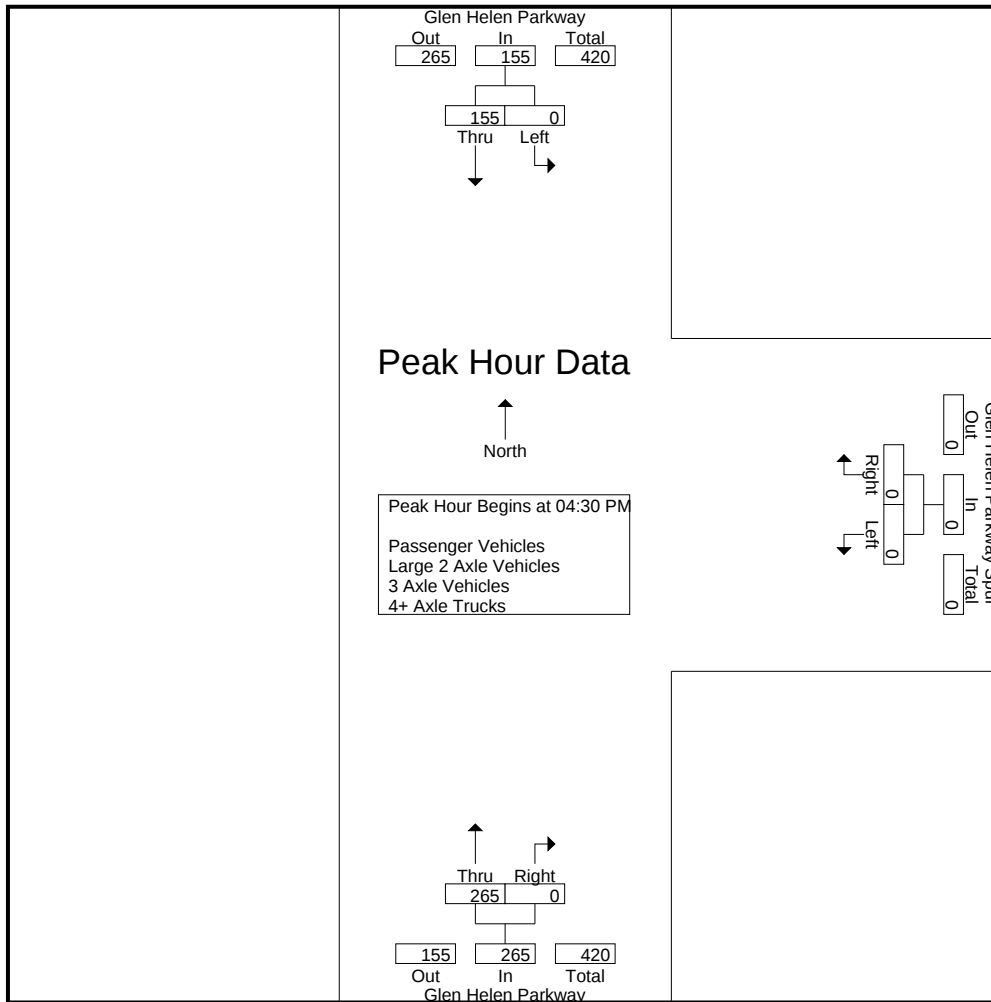
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	45	45	0	0	0	49	0	49	94
04:15 PM	0	38	38	0	0	0	47	0	47	85
04:30 PM	0	49	49	0	0	0	62	0	62	111
04:45 PM	0	39	39	0	0	0	74	0	74	113
Total	0	171	171	0	0	0	232	0	232	403
05:00 PM	0	32	32	0	0	0	72	0	72	104
05:15 PM	0	35	35	0	0	0	57	0	57	92
05:30 PM	0	28	28	0	0	0	48	0	48	76
05:45 PM	0	28	28	0	0	0	32	0	32	60
Total	0	123	123	0	0	0	209	0	209	332
Grand Total	0	294	294	0	0	0	441	0	441	735
Apprch %	0	100		0	0		100	0		
Total %	0	40	40	0	0	0	60	0	60	
Passenger Vehicles	0	275	275	0	0	0	410	0	410	685
% Passenger Vehicles	0	93.5	93.5	0	0	0	93	0	93	93.2
Large 2 Axle Vehicles	0	7	7	0	0	0	17	0	17	24
% Large 2 Axle Vehicles	0	2.4	2.4	0	0	0	3.9	0	3.9	3.3
3 Axle Vehicles	0	2	2	0	0	0	2	0	2	4
% 3 Axle Vehicles	0	0.7	0.7	0	0	0	0.5	0	0.5	0.5
4+ Axle Trucks	0	10	10	0	0	0	12	0	12	22
% 4+ Axle Trucks	0	3.4	3.4	0	0	0	2.7	0	2.7	3

	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	49	49	0	0	0	62	0	62	111
04:45 PM	0	39	39	0	0	0	74	0	74	113
05:00 PM	0	32	32	0	0	0	72	0	72	104
05:15 PM	0	35	35	0	0	0	57	0	57	92
Total Volume	0	155	155	0	0	0	265	0	265	420
% App. Total	0	100		0	0		100	0		
PHF	.000	.791	.791	.000	.000	.000	.895	.000	.895	.929

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur PM
Site Code : 22523027
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:30 PM		
+0 mins.	0	45	45	0	0	0	62	0	62
+15 mins.	0	38	38	0	0	0	74	0	74
+30 mins.	0	49	49	0	0	0	72	0	72
+45 mins.	0	39	39	0	0	0	57	0	57
Total Volume	0	171	171	0	0	0	265	0	265
% App. Total	0	100		0	0		100	0	
PHF	.000	.872	.872	.000	.000	.000	.895	.000	.895

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur PM
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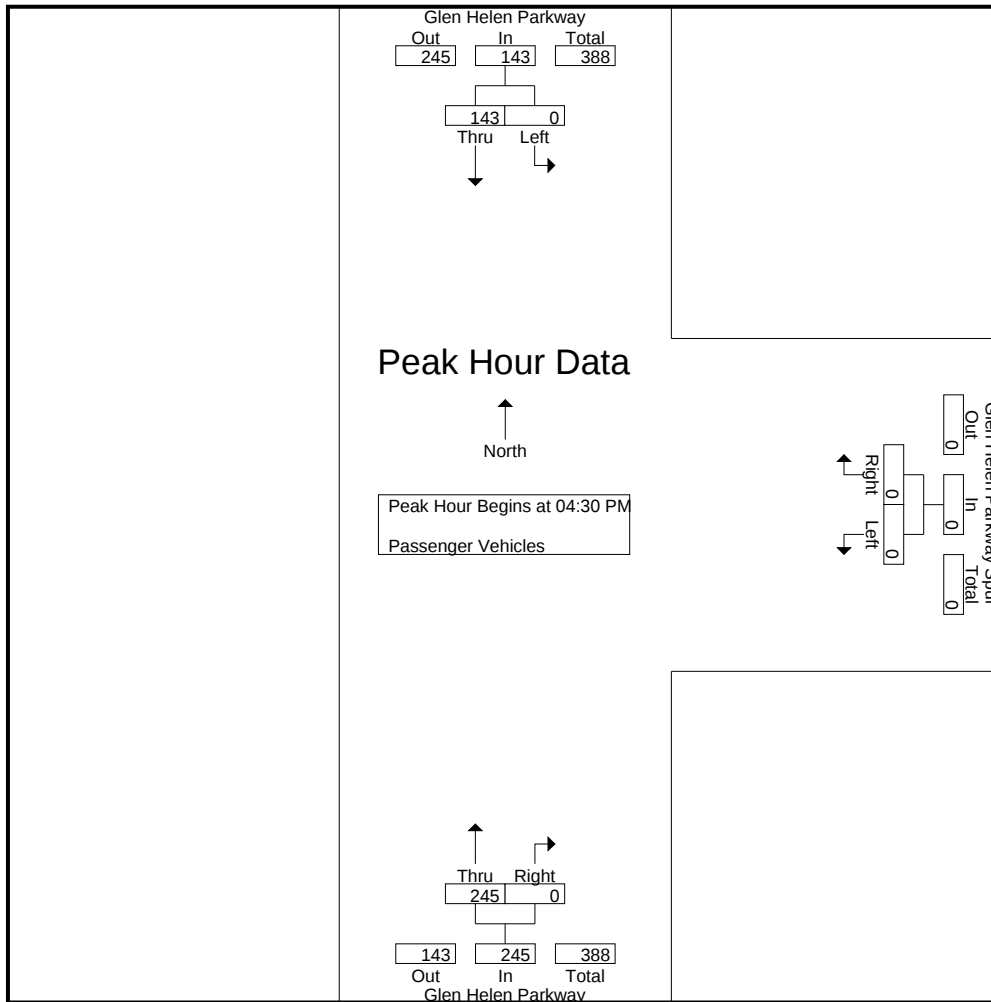
Groups Printed- Passenger Vehicles

	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	41	41	0	0	0	43	0	43	84
04:15 PM	0	38	38	0	0	0	45	0	45	83
04:30 PM	0	46	46	0	0	0	60	0	60	106
04:45 PM	0	37	37	0	0	0	71	0	71	108
Total	0	162	162	0	0	0	219	0	219	381
05:00 PM	0	28	28	0	0	0	68	0	68	96
05:15 PM	0	32	32	0	0	0	46	0	46	78
05:30 PM	0	27	27	0	0	0	46	0	46	73
05:45 PM	0	26	26	0	0	0	31	0	31	57
Total	0	113	113	0	0	0	191	0	191	304
Grand Total	0	275	275	0	0	0	410	0	410	685
Apprch %	0	100		0	0		100	0		
Total %	0	40.1	40.1	0	0	0	59.9	0	59.9	

	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	46	46	0	0	0	60	0	60	106
04:45 PM	0	37	37	0	0	0	71	0	71	108
05:00 PM	0	28	28	0	0	0	68	0	68	96
05:15 PM	0	32	32	0	0	0	46	0	46	78
Total Volume	0	143	143	0	0	0	245	0	245	388
% App. Total	0	100		0	0		100	0		
PHF	.000	.777	.777	.000	.000	.000	.863	.000	.863	.898

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur PM
Site Code : 22523027
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	46	46	0	0	0	60	0	60
+15 mins.	0	37	37	0	0	0	71	0	71
+30 mins.	0	28	28	0	0	0	68	0	68
+45 mins.	0	32	32	0	0	0	46	0	46
Total Volume	0	143	143	0	0	0	245	0	245
% App. Total	0	100		0	0		100	0	
PHF	.000	.777	.777	.000	.000	.000	.863	.000	.863

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur PM
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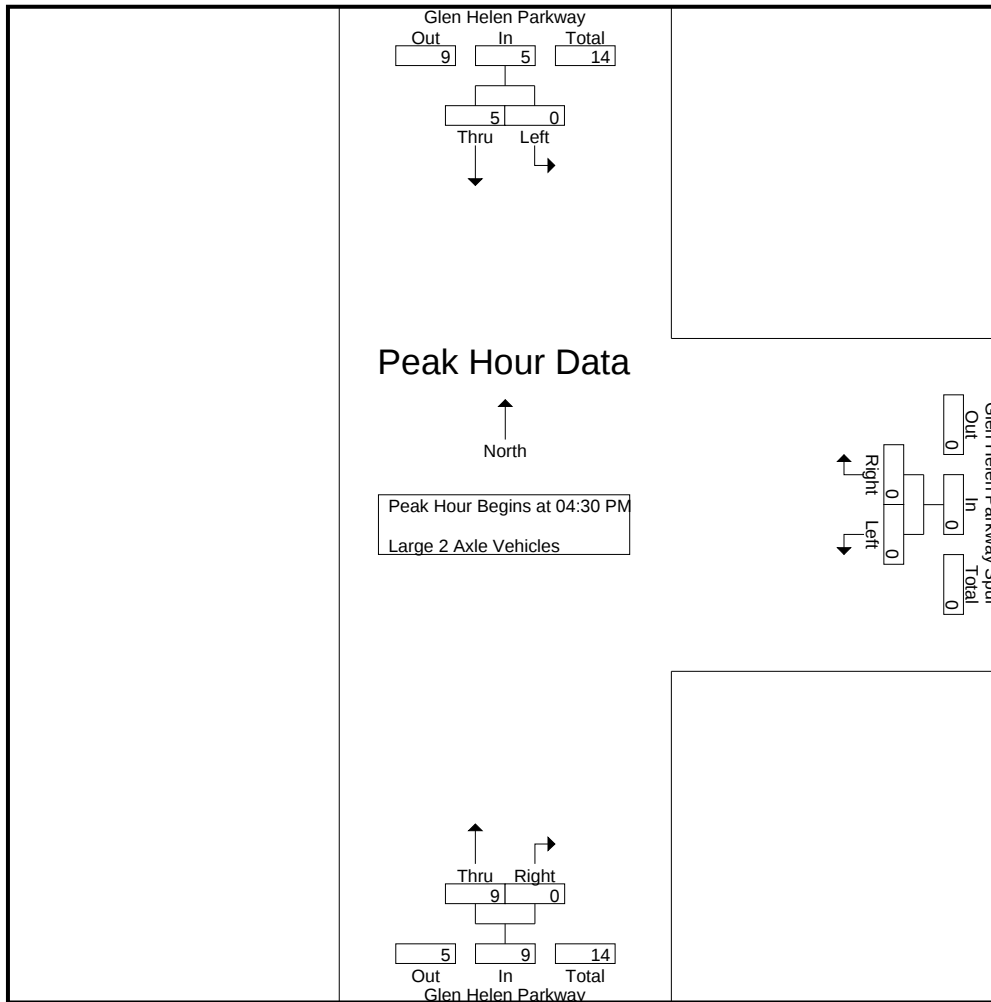
Groups Printed- Large 2 Axle Vehicles

	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	2	2	0	0	0	5	0	5	7
04:15 PM	0	0	0	0	0	0	2	0	2	2
04:30 PM	0	1	1	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	1	0	1	1
Total	0	3	3	0	0	0	8	0	8	11
05:00 PM	0	3	3	0	0	0	2	0	2	5
05:15 PM	0	1	1	0	0	0	6	0	6	7
05:30 PM	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	4	4	0	0	0	9	0	9	13
Grand Total	0	7	7	0	0	0	17	0	17	24
Apprch %	0	100		0	0		100	0		
Total %	0	29.2	29.2	0	0	0	70.8	0	70.8	

	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	1	1	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	1	0	1	1
05:00 PM	0	3	3	0	0	0	2	0	2	5
05:15 PM	0	1	1	0	0	0	6	0	6	7
Total Volume	0	5	5	0	0	0	9	0	9	14
% App. Total	0	100		0	0		100	0		
PHF	.000	.417	.417	.000	.000	.000	.375	.000	.375	.500

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur PM
Site Code : 22523027
Start Date : 1/11/2023
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	1	1	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	1	0	1
+30 mins.	0	3	3	0	0	0	2	0	2
+45 mins.	0	1	1	0	0	0	6	0	6
Total Volume	0	5	5	0	0	0	9	0	9
% App. Total	0	100		0	0		100	0	
PHF	.000	.417	.417	.000	.000	.000	.375	.000	.375

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur PM
Site Code : 22523027
Start Date : 1/11/2023
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Groups Printed- 3 Axle Vehicles

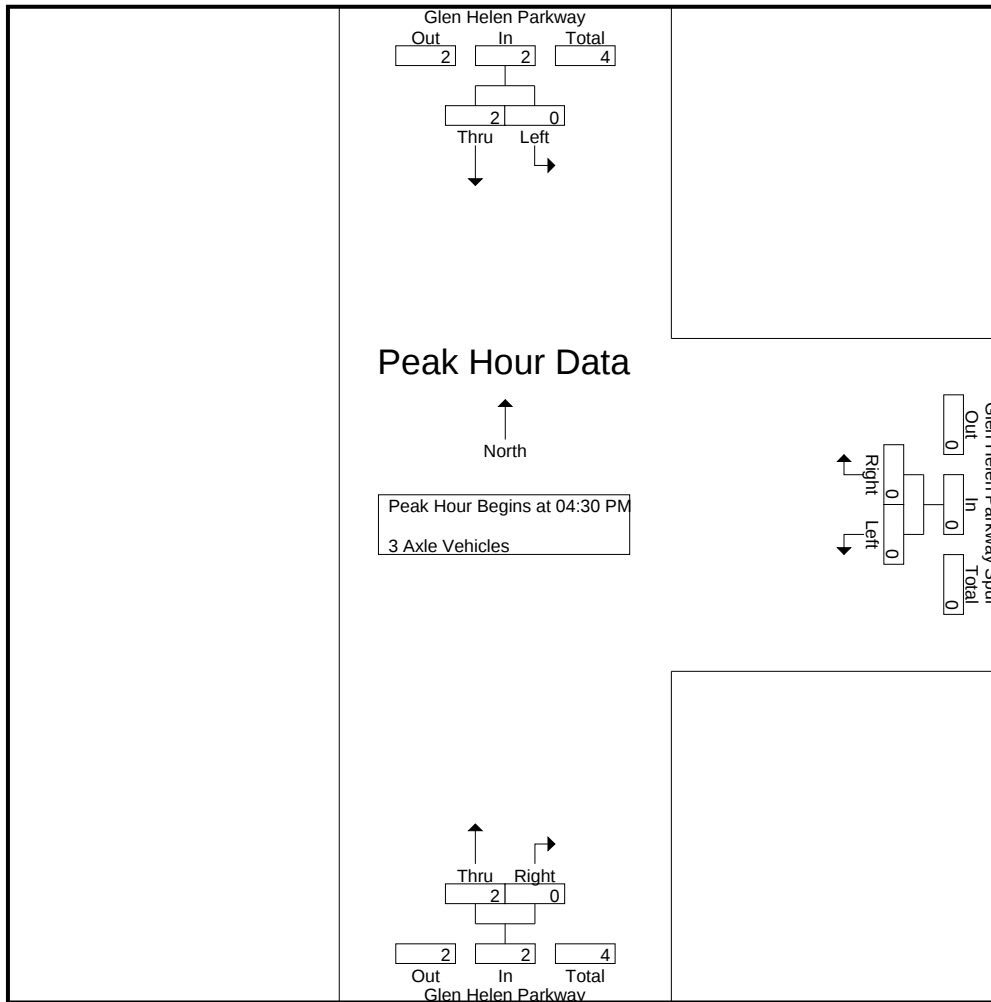
	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	1	0	1	1
05:00 PM	0	1	1	0	0	0	0	0	0	1
05:15 PM	0	1	1	0	0	0	1	0	1	2
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	2	2	0	0	0	1	0	1	3
Grand Total	0	2	2	0	0	0	2	0	2	4
Apprch %	0	100		0	0		100	0		
Total %	0	50	50	0	0	0	50	0	50	

	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	1	0	1	1
05:00 PM	0	1	1	0	0	0	0	0	0	1
05:15 PM	0	1	1	0	0	0	1	0	1	2
Total Volume	0	2	2	0	0	0	2	0	2	4
% App. Total	0	100		0	0		100	0		
PHF	.000	.500	.500	.000	.000	.000	.500	.000	.500	.500

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:30 PM

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur PM
Site Code : 22523027
Start Date : 1/11/2023
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	1	0	1
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	1	1	0	0	0	1	0	1
Total Volume	0	2	2	0	0	0	2	0	2
% App. Total	0	100		0	0		100	0	
PHF	.000	.500	.500	.000	.000	.000	.500	.000	.500

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur PM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 1

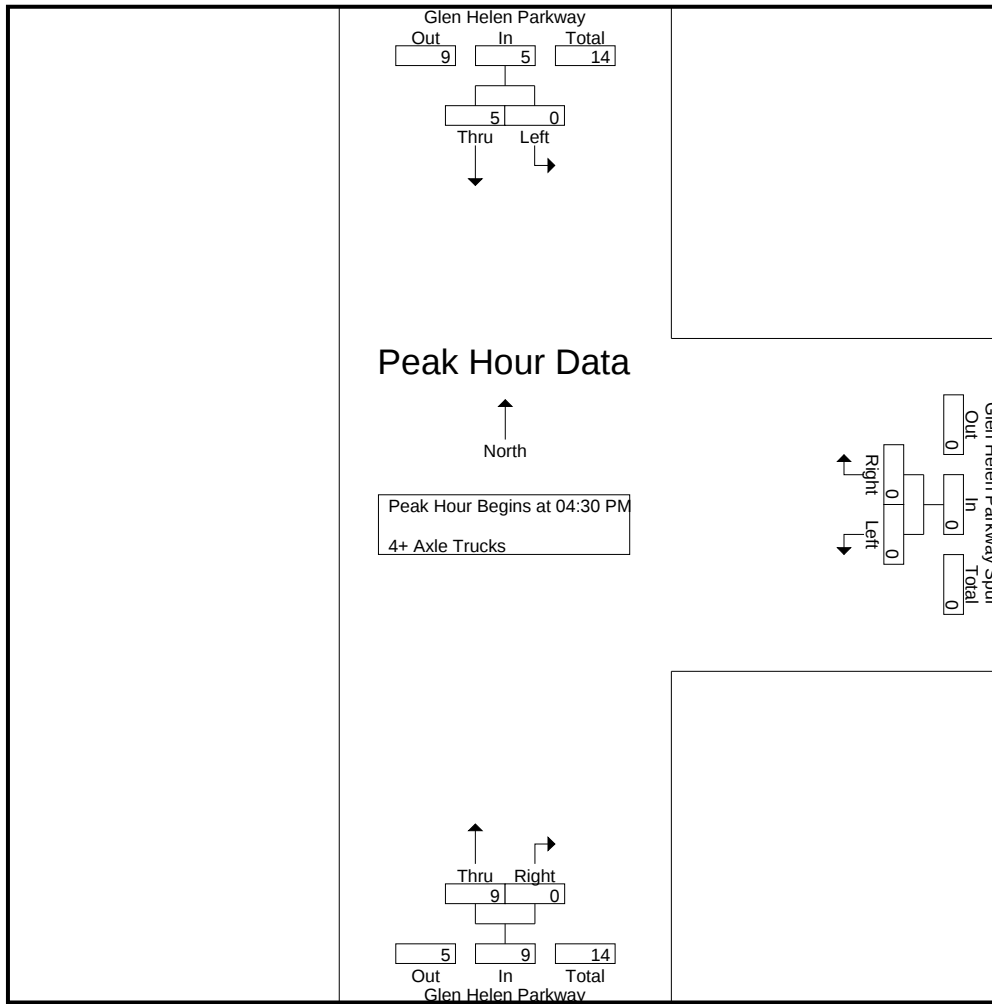
Groups Printed- 4+ Axle Trucks

	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	2	2	0	0	0	1	0	1	3
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	2	2	0	0	0	2	0	2	4
04:45 PM	0	2	2	0	0	0	1	0	1	3
Total	0	6	6	0	0	0	4	0	4	10
05:00 PM	0	0	0	0	0	0	2	0	2	2
05:15 PM	0	1	1	0	0	0	4	0	4	5
05:30 PM	0	1	1	0	0	0	1	0	1	2
05:45 PM	0	2	2	0	0	0	1	0	1	3
Total	0	4	4	0	0	0	8	0	8	12
Grand Total	0	10	10	0	0	0	12	0	12	22
Apprch %	0	100		0	0		100	0		
Total %	0	45.5	45.5	0	0	0	54.5	0	54.5	

	Glen Helen Parkway Southbound			Glen Helen Parkway Spur Westbound			Glen Helen Parkway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	2	2	0	0	0	2	0	2	4
04:45 PM	0	2	2	0	0	0	1	0	1	3
05:00 PM	0	0	0	0	0	0	2	0	2	2
05:15 PM	0	1	1	0	0	0	4	0	4	5
Total Volume	0	5	5	0	0	0	9	0	9	14
% App. Total	0	100		0	0		100	0		
PHF	.000	.625	.625	.000	.000	.000	.563	.000	.563	.700

City of San Bernardino
N/S: Glen Helen Parkway
E/W: Glen Helen Parkway Spur
Weather: Clear

File Name : 04_SBC_Glen_GH Spur PM
Site Code : 22523027
Start Date : 1/11/2023
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	2	2	0	0	0	2	0	2
+15 mins.	0	2	2	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	2	0	2
+45 mins.	0	1	1	0	0	0	4	0	4
Total Volume	0	5	5	0	0	0	9	0	9
% App. Total	0	100		0	0		100	0	
PHF	.000	.625	.625	.000	.000	.000	.563	.000	.563

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen AM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 1

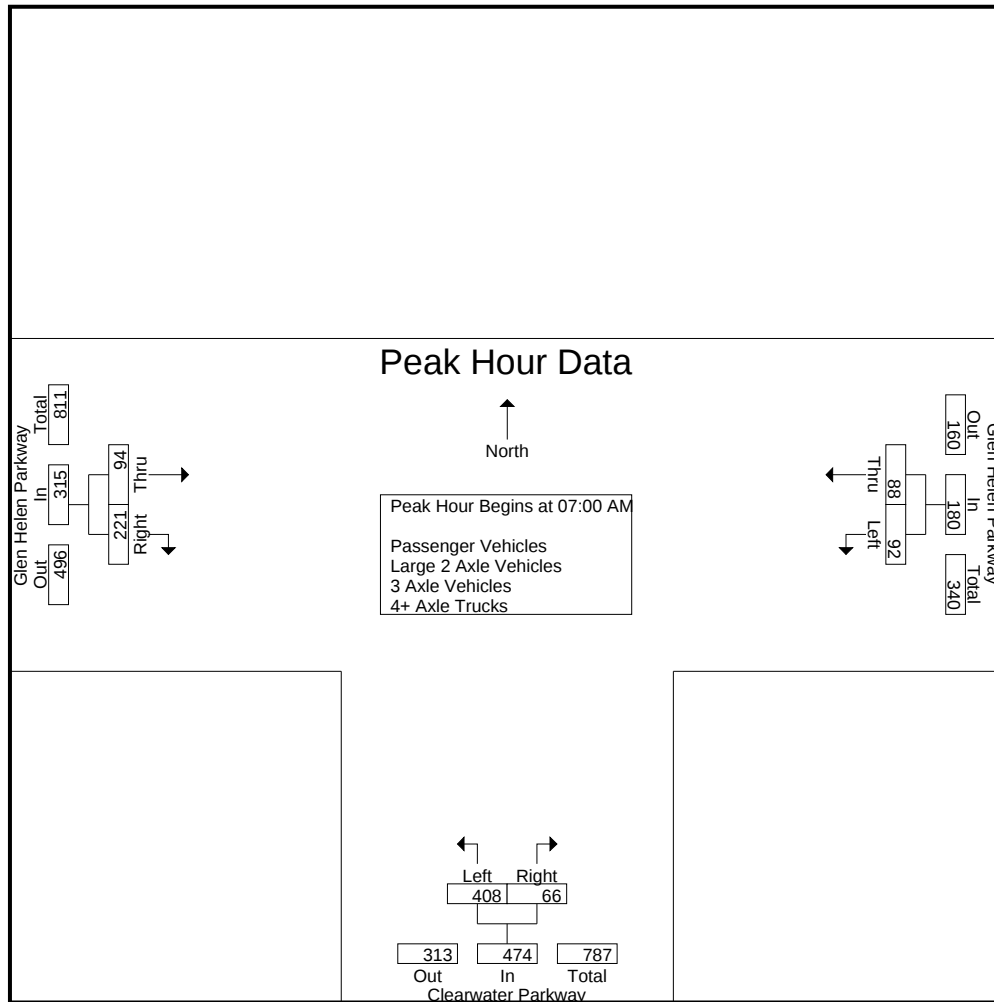
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	30	23	53	82	14	96	24	47	71	220
07:15 AM	22	17	39	128	16	144	12	59	71	254
07:30 AM	21	27	48	127	21	148	27	70	97	293
07:45 AM	19	21	40	71	15	86	31	45	76	202
Total	92	88	180	408	66	474	94	221	315	969
08:00 AM	7	13	20	70	11	81	22	40	62	163
08:15 AM	10	14	24	51	17	68	8	31	39	131
08:30 AM	9	14	23	52	18	70	15	32	47	140
08:45 AM	13	21	34	37	14	51	20	21	41	126
Total	39	62	101	210	60	270	65	124	189	560
Grand Total	131	150	281	618	126	744	159	345	504	1529
Apprch %	46.6	53.4		83.1	16.9		31.5	68.5		
Total %	8.6	9.8	18.4	40.4	8.2	48.7	10.4	22.6	33	
Passenger Vehicles	118	120	238	613	114	727	129	337	466	1431
% Passenger Vehicles	90.1	80	84.7	99.2	90.5	97.7	81.1	97.7	92.5	93.6
Large 2 Axle Vehicles	13	10	23	5	11	16	13	8	21	60
% Large 2 Axle Vehicles	9.9	6.7	8.2	0.8	8.7	2.2	8.2	2.3	4.2	3.9
3 Axle Vehicles	0	3	3	0	1	1	10	0	10	14
% 3 Axle Vehicles	0	2	1.1	0	0.8	0.1	6.3	0	2	0.9
4+ Axle Trucks	0	17	17	0	0	0	7	0	7	24
% 4+ Axle Trucks	0	11.3	6	0	0	0	4.4	0	1.4	1.6

	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	30	23	53	82	14	96	24	47	71	220
07:15 AM	22	17	39	128	16	144	12	59	71	254
07:30 AM	21	27	48	127	21	148	27	70	97	293
07:45 AM	19	21	40	71	15	86	31	45	76	202
Total Volume	92	88	180	408	66	474	94	221	315	969
% App. Total	51.1	48.9		86.1	13.9		29.8	70.2		
PHF	.767	.815	.849	.797	.786	.801	.758	.789	.812	.827

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen AM
Site Code : 22523027
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	30	23	53	82	14	96	24	47	71
+15 mins.	22	17	39	128	16	144	12	59	71
+30 mins.	21	27	48	127	21	148	27	70	97
+45 mins.	19	21	40	71	15	86	31	45	76
Total Volume	92	88	180	408	66	474	94	221	315
% App. Total	51.1	48.9		86.1	13.9		29.8	70.2	
PHF	.767	.815	.849	.797	.786	.801	.758	.789	.812

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen AM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 1

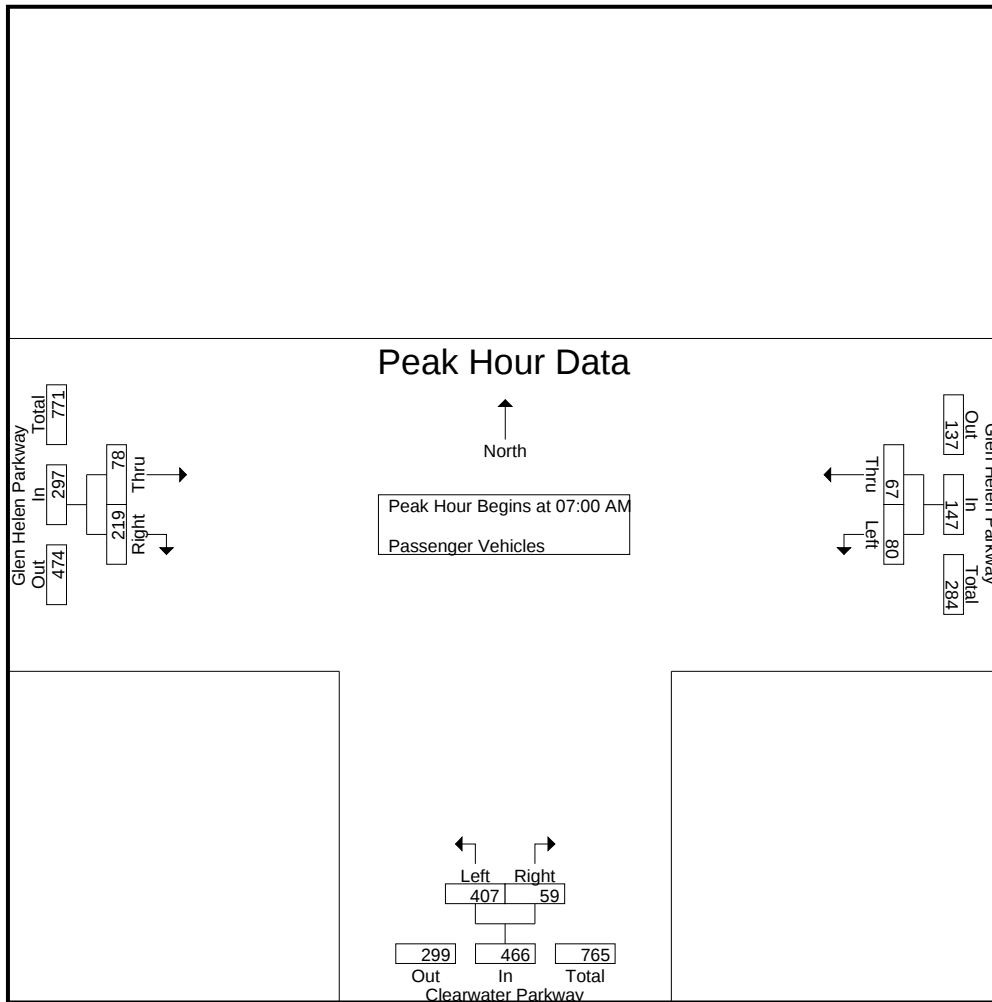
Groups Printed- Passenger Vehicles

	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	25	16	41	82	13	95	22	47	69	205
07:15 AM	21	14	35	127	16	143	7	59	66	244
07:30 AM	19	20	39	127	19	146	24	69	93	278
07:45 AM	15	17	32	71	11	82	25	44	69	183
Total	80	67	147	407	59	466	78	219	297	910
08:00 AM	6	12	18	70	9	79	19	38	57	154
08:15 AM	10	10	20	49	16	65	4	31	35	120
08:30 AM	9	14	23	50	18	68	12	31	43	134
08:45 AM	13	17	30	37	12	49	16	18	34	113
Total	38	53	91	206	55	261	51	118	169	521
Grand Total	118	120	238	613	114	727	129	337	466	1431
Apprch %	49.6	50.4		84.3	15.7		27.7	72.3		
Total %	8.2	8.4	16.6	42.8	8	50.8	9	23.5	32.6	

	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	25	16	41	82	13	95	22	47	69	205
07:15 AM	21	14	35	127	16	143	7	59	66	244
07:30 AM	19	20	39	127	19	146	24	69	93	278
07:45 AM	15	17	32	71	11	82	25	44	69	183
Total Volume	80	67	147	407	59	466	78	219	297	910
% App. Total	54.4	45.6		87.3	12.7		26.3	73.7		
PHF	.800	.838	.896	.801	.776	.798	.780	.793	.798	.818

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen AM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	25	16	41	82	13	95	22	47	69
+15 mins.	21	14	35	127	16	143	7	59	66
+30 mins.	19	20	39	127	19	146	24	69	93
+45 mins.	15	17	32	71	11	82	25	44	69
Total Volume	80	67	147	407	59	466	78	219	297
% App. Total	54.4	45.6		87.3	12.7		26.3	73.7	
PHF	.800	.838	.896	.801	.776	.798	.780	.793	.798

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen AM
Site Code : 22523027
Start Date : 1/11/2023
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Groups Printed- Large 2 Axle Vehicles

	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	5	4	9	0	1	1	1	0	1	11
07:15 AM	1	0	1	1	0	1	1	0	1	3
07:30 AM	2	1	3	0	2	2	0	1	1	6
07:45 AM	4	2	6	0	4	4	4	1	5	15
Total	12	7	19	1	7	8	6	2	8	35
08:00 AM	1	1	2	0	2	2	2	2	4	8
08:15 AM	0	1	1	2	1	3	3	0	3	7
08:30 AM	0	0	0	2	0	2	0	1	1	3
08:45 AM	0	1	1	0	1	1	2	3	5	7
Total	1	3	4	4	4	8	7	6	13	25
Grand Total	13	10	23	5	11	16	13	8	21	60
Apprch %	56.5	43.5		31.2	68.8		61.9	38.1		
Total %	21.7	16.7	38.3	8.3	18.3	26.7	21.7	13.3	35	

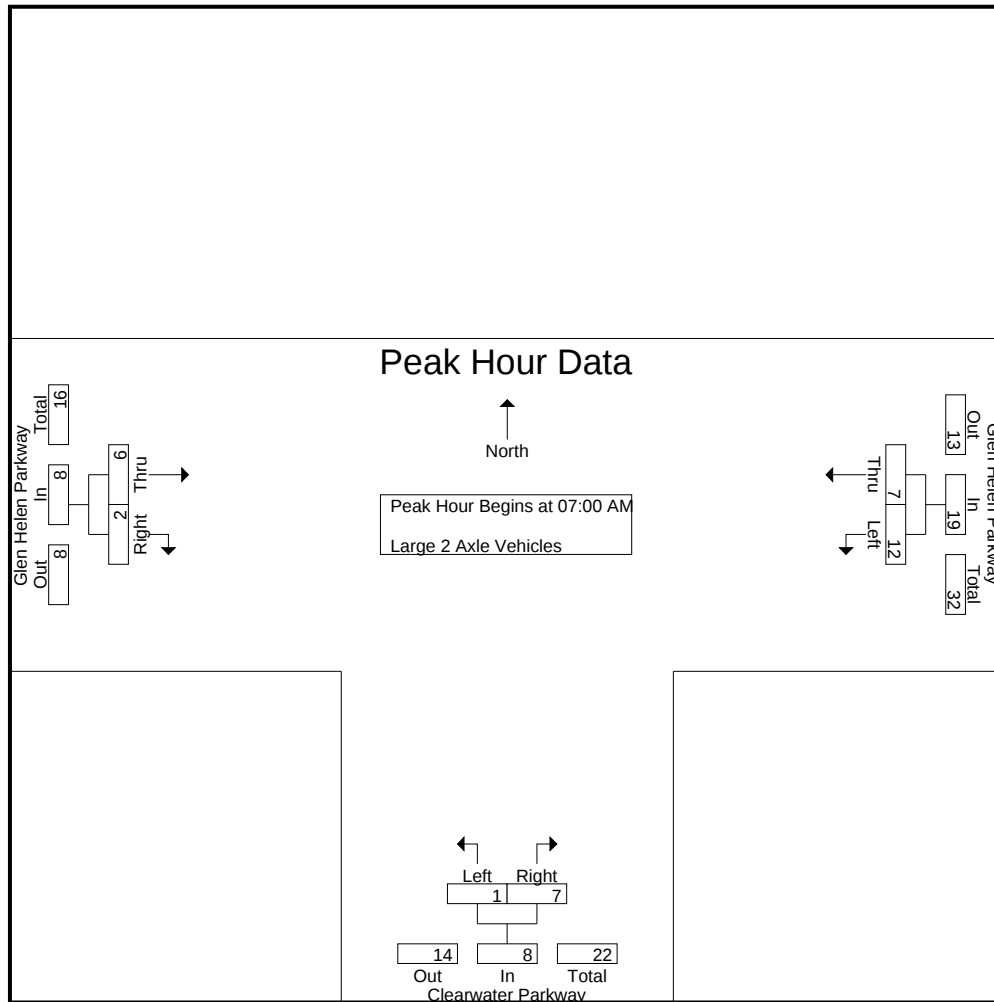
	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	5	4	9	0	1	1	1	0	1	11
07:15 AM	1	0	1	1	0	1	1	0	1	3
07:30 AM	2	1	3	0	2	2	0	1	1	6
07:45 AM	4	2	6	0	4	4	4	1	5	15
Total Volume	12	7	19	1	7	8	6	2	8	35
% App. Total	63.2	36.8		12.5	87.5		75	25		
PHF	.600	.438	.528	.250	.438	.500	.375	.500	.400	.583

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen AM
Site Code : 22523027
Start Date : 1/11/2023
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	5	4	9	0	1	1	1	0	1
+15 mins.	1	0	1	1	0	1	1	0	1
+30 mins.	2	1	3	0	2	2	0	1	1
+45 mins.	4	2	6	0	4	4	4	1	5
Total Volume	12	7	19	1	7	8	6	2	8
% App. Total	63.2	36.8		12.5	87.5		75	25	
PHF	.600	.438	.528	.250	.438	.500	.375	.500	.400

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen AM
Site Code : 22523027
Start Date : 1/11/2023
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Groups Printed- 3 Axle Vehicles

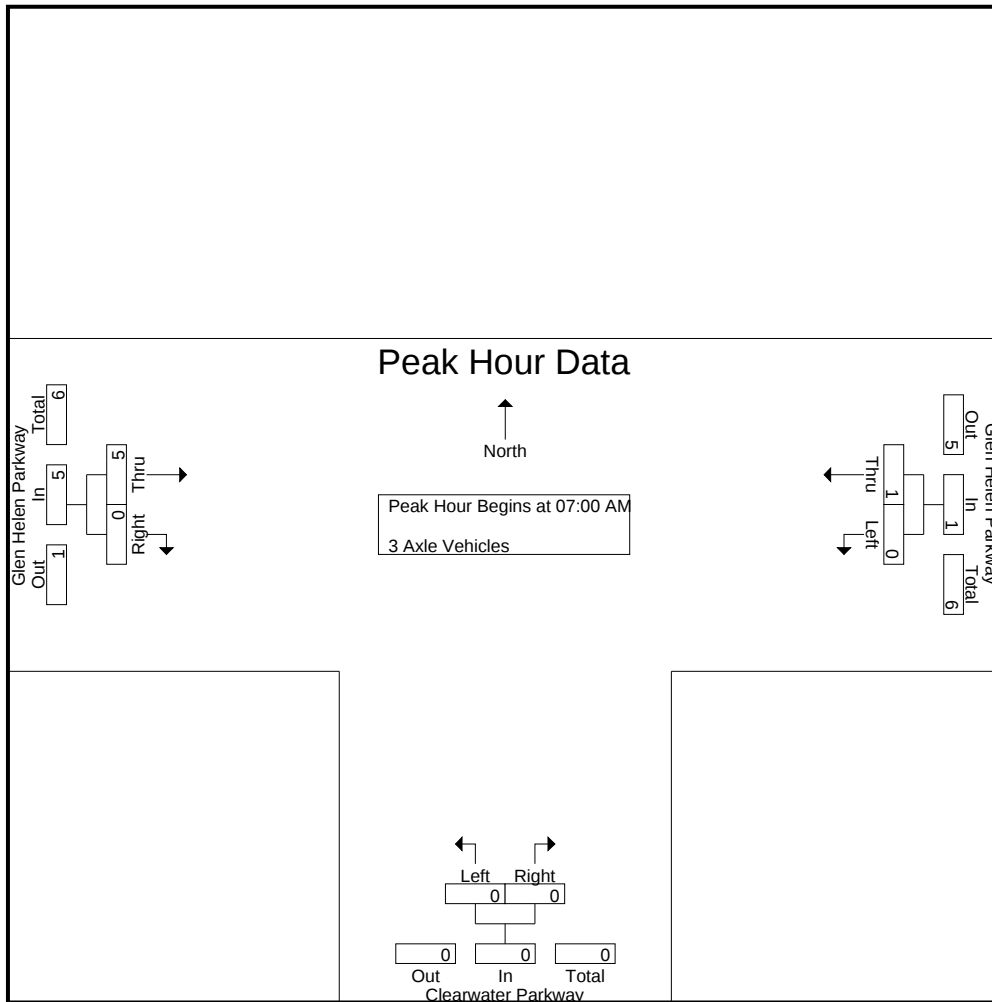
	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	1	1	0	0	0	2	0	2	3
07:45 AM	0	0	0	0	0	0	2	0	2	2
Total	0	1	1	0	0	0	5	0	5	6
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	1	0	1	1
08:30 AM	0	0	0	0	0	0	3	0	3	3
08:45 AM	0	2	2	0	1	1	1	0	1	4
Total	0	2	2	0	1	1	5	0	5	8
Grand Total	0	3	3	0	1	1	10	0	10	14
Apprch %	0	100		0	100		100	0		
Total %	0	21.4	21.4	0	7.1	7.1	71.4	0	71.4	

	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	1	1	0	0	0	2	0	2	3
07:45 AM	0	0	0	0	0	0	2	0	2	2
Total Volume	0	1	1	0	0	0	5	0	5	6
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.625	.000	.625	.500

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:00 AM

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen AM
Site Code : 22523027
Start Date : 1/11/2023
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	1	0	0	0	2	0	2
+45 mins.	0	0	0	0	0	0	2	0	2
Total Volume	0	1	1	0	0	0	5	0	5
% App. Total	0	100		0	0		100	0	
PHF	.000	.250	.250	.000	.000	.000	.625	.000	.625

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen AM
Site Code : 22523027
Start Date : 1/11/2023
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Groups Printed- 4+ Axle Trucks

	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	3	3	0	0	0	0	0	0	3
07:15 AM	0	3	3	0	0	0	4	0	4	7
07:30 AM	0	5	5	0	0	0	1	0	1	6
07:45 AM	0	2	2	0	0	0	0	0	0	2
Total	0	13	13	0	0	0	5	0	5	18
08:00 AM	0	0	0	0	0	0	1	0	1	1
08:15 AM	0	3	3	0	0	0	0	0	0	3
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	1	0	0	0	1	0	1	2
Total	0	4	4	0	0	0	2	0	2	6
Grand Total	0	17	17	0	0	0	7	0	7	24
Apprch %	0	100		0	0		100	0		
Total %	0	70.8	70.8	0	0	0	29.2	0	29.2	

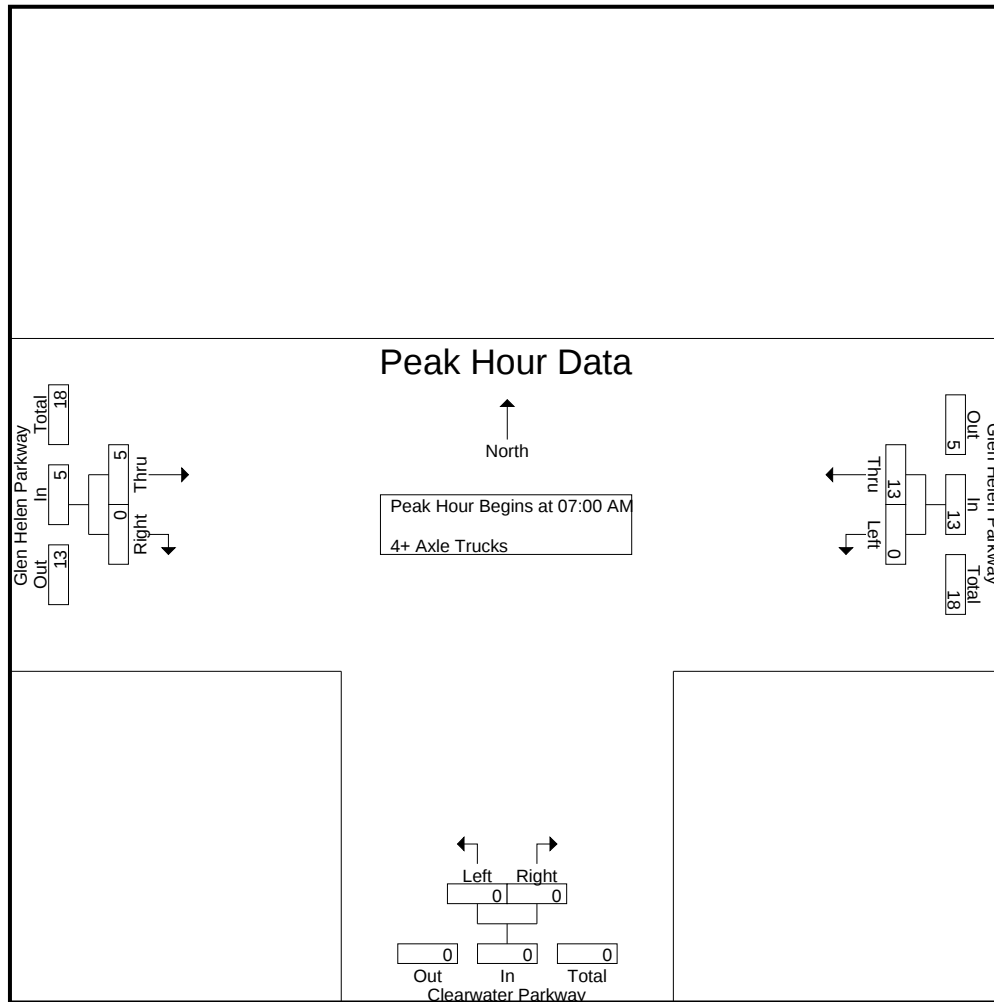
	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	3	3	0	0	0	0	0	0	3
07:15 AM	0	3	3	0	0	0	4	0	4	7
07:30 AM	0	5	5	0	0	0	1	0	1	6
07:45 AM	0	2	2	0	0	0	0	0	0	2
Total Volume	0	13	13	0	0	0	5	0	5	18
% App. Total	0	100		0	0		100	0		
PHF	.000	.650	.650	.000	.000	.000	.313	.000	.313	.643

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen AM
Site Code : 22523027
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	3	3	0	0	0	0	0	0
+15 mins.	0	3	3	0	0	0	4	0	4
+30 mins.	0	5	5	0	0	0	1	0	1
+45 mins.	0	2	2	0	0	0	0	0	0
Total Volume	0	13	13	0	0	0	5	0	5
% App. Total	0	100		0	0		100	0	
PHF	.000	.650	.650	.000	.000	.000	.313	.000	.313

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen PM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 1

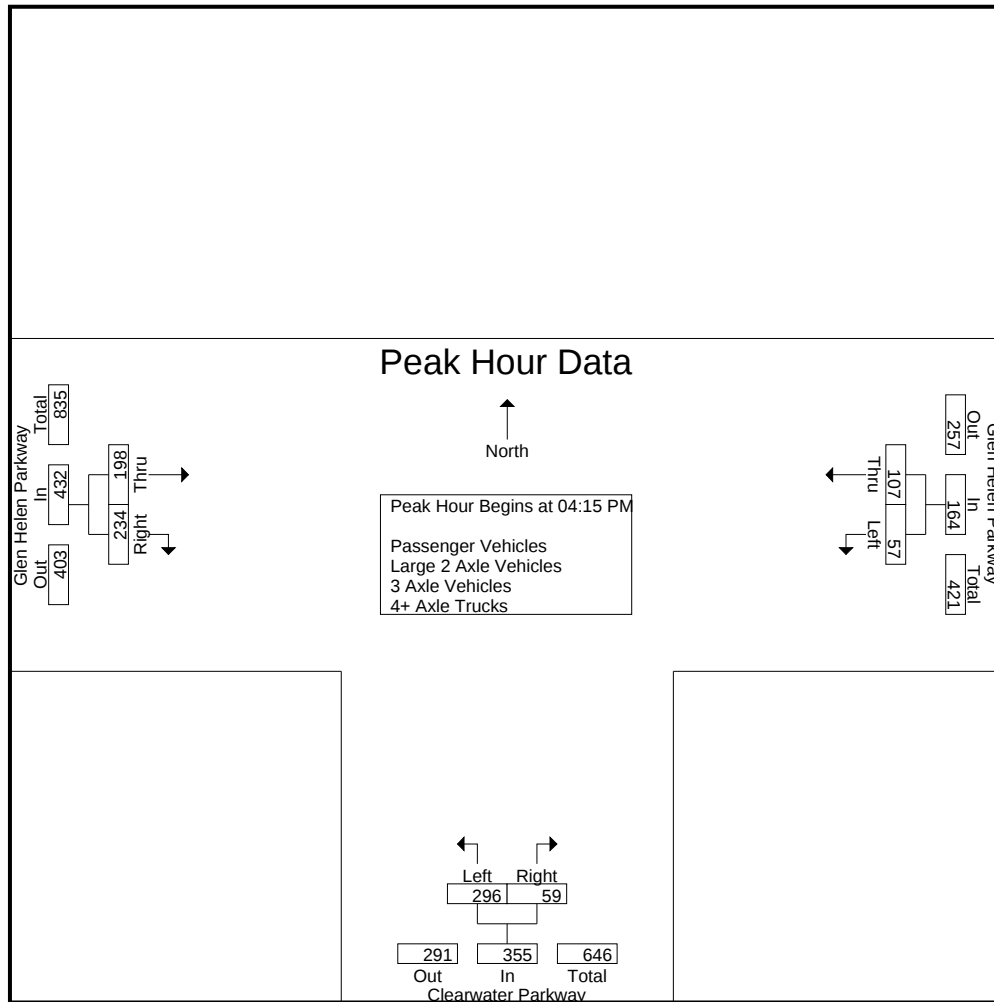
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	13	36	49	65	19	84	28	67	95	228
04:15 PM	12	26	38	76	7	83	36	67	103	224
04:30 PM	20	31	51	70	15	85	42	54	96	232
04:45 PM	15	26	41	64	19	83	53	59	112	236
Total	60	119	179	275	60	335	159	247	406	920
05:00 PM	10	24	34	86	18	104	67	54	121	259
05:15 PM	12	22	34	28	8	36	43	68	111	181
05:30 PM	16	14	30	36	8	44	41	59	100	174
05:45 PM	15	12	27	24	8	32	22	77	99	158
Total	53	72	125	174	42	216	173	258	431	772
Grand Total	113	191	304	449	102	551	332	505	837	1692
Apprch %	37.2	62.8		81.5	18.5		39.7	60.3		
Total %	6.7	11.3	18	26.5	6	32.6	19.6	29.8	49.5	
Passenger Vehicles	110	174	284	442	101	543	306	501	807	1634
% Passenger Vehicles	97.3	91.1	93.4	98.4	99	98.5	92.2	99.2	96.4	96.6
Large 2 Axle Vehicles	3	2	5	7	1	8	12	3	15	28
% Large 2 Axle Vehicles	2.7	1	1.6	1.6	1	1.5	3.6	0.6	1.8	1.7
3 Axle Vehicles	0	3	3	0	0	0	2	1	3	6
% 3 Axle Vehicles	0	1.6	1	0	0	0	0.6	0.2	0.4	0.4
4+ Axle Trucks	0	12	12	0	0	0	12	0	12	24
% 4+ Axle Trucks	0	6.3	3.9	0	0	0	3.6	0	1.4	1.4

	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	12	26	38	76	7	83	36	67	103	224
04:30 PM	20	31	51	70	15	85	42	54	96	232
04:45 PM	15	26	41	64	19	83	53	59	112	236
05:00 PM	10	24	34	86	18	104	67	54	121	259
Total Volume	57	107	164	296	59	355	198	234	432	951
% App. Total	34.8	65.2		83.4	16.6		45.8	54.2		
PHF	.713	.863	.804	.860	.776	.853	.739	.873	.893	.918

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen PM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:15 PM			04:45 PM		
+0 mins.	13	36	49	76	7	83	53	59	112
+15 mins.	12	26	38	70	15	85	67	54	121
+30 mins.	20	31	51	64	19	83	43	68	111
+45 mins.	15	26	41	86	18	104	41	59	100
Total Volume	60	119	179	296	59	355	204	240	444
% App. Total	33.5	66.5		83.4	16.6		45.9	54.1	
PHF	.750	.826	.877	.860	.776	.853	.761	.882	.917

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen PM
Site Code : 22523027
Start Date : 1/11/2023
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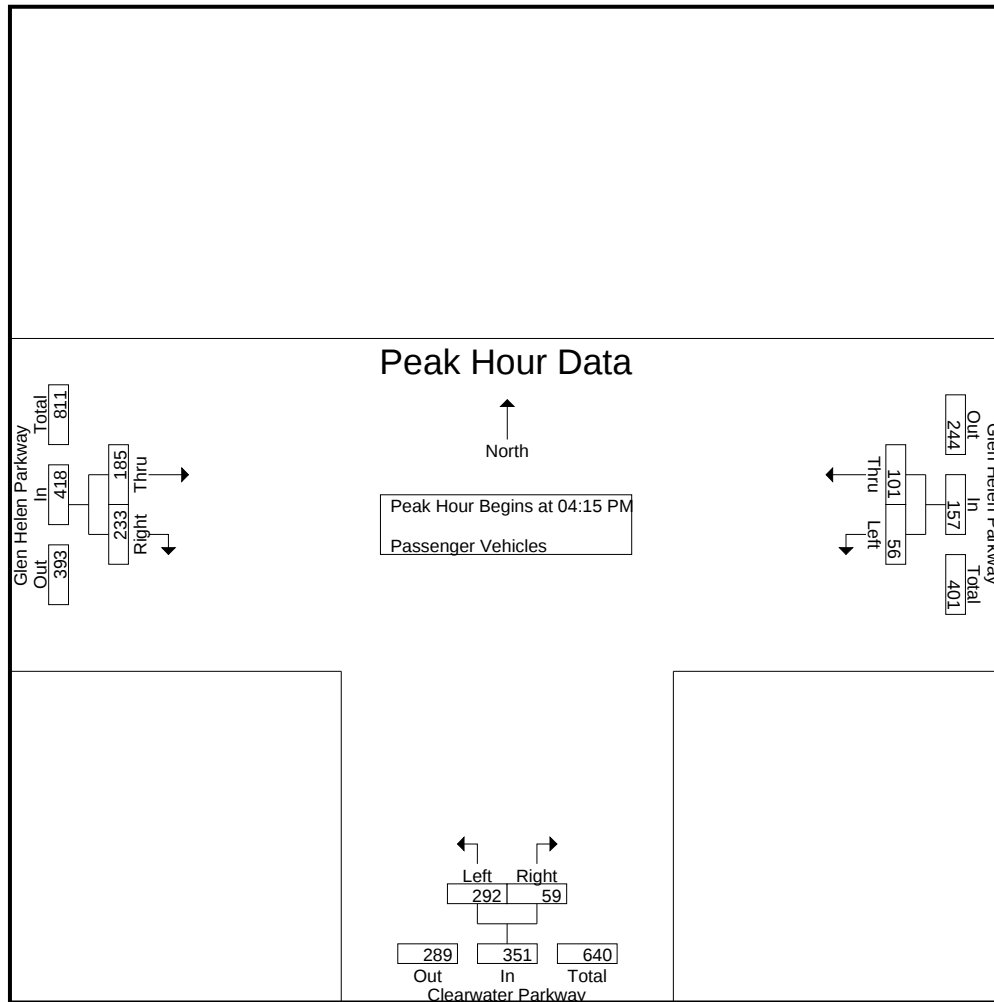
Groups Printed- Passenger Vehicles

	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	11	30	41	65	18	83	25	65	90	214
04:15 PM	12	26	38	74	7	81	35	67	102	221
04:30 PM	19	29	48	69	15	84	40	54	94	226
04:45 PM	15	25	40	63	19	82	50	59	109	231
Total	57	110	167	271	59	330	150	245	395	892
05:00 PM	10	21	31	86	18	104	60	53	113	248
05:15 PM	12	20	32	26	8	34	36	67	103	169
05:30 PM	16	13	29	36	8	44	38	59	97	170
05:45 PM	15	10	25	23	8	31	22	77	99	155
Total	53	64	117	171	42	213	156	256	412	742
Grand Total	110	174	284	442	101	543	306	501	807	1634
Apprch %	38.7	61.3		81.4	18.6		37.9	62.1		
Total %	6.7	10.6	17.4	27.1	6.2	33.2	18.7	30.7	49.4	

	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	12	26	38	74	7	81	35	67	102	221
04:30 PM	19	29	48	69	15	84	40	54	94	226
04:45 PM	15	25	40	63	19	82	50	59	109	231
05:00 PM	10	21	31	86	18	104	60	53	113	248
Total Volume	56	101	157	292	59	351	185	233	418	926
% App. Total	35.7	64.3		83.2	16.8		44.3	55.7		
PHF	.737	.871	.818	.849	.776	.844	.771	.869	.925	.933

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen PM
Site Code : 22523027
Start Date : 1/11/2023
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Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	12	26	38	74	7	81	35	67	102
+15 mins.	19	29	48	69	15	84	40	54	94
+30 mins.	15	25	40	63	19	82	50	59	109
+45 mins.	10	21	31	86	18	104	60	53	113
Total Volume	56	101	157	292	59	351	185	233	418
% App. Total	35.7	64.3		83.2	16.8		44.3	55.7	
PHF	.737	.871	.818	.849	.776	.844	.771	.869	.925

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen PM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 1

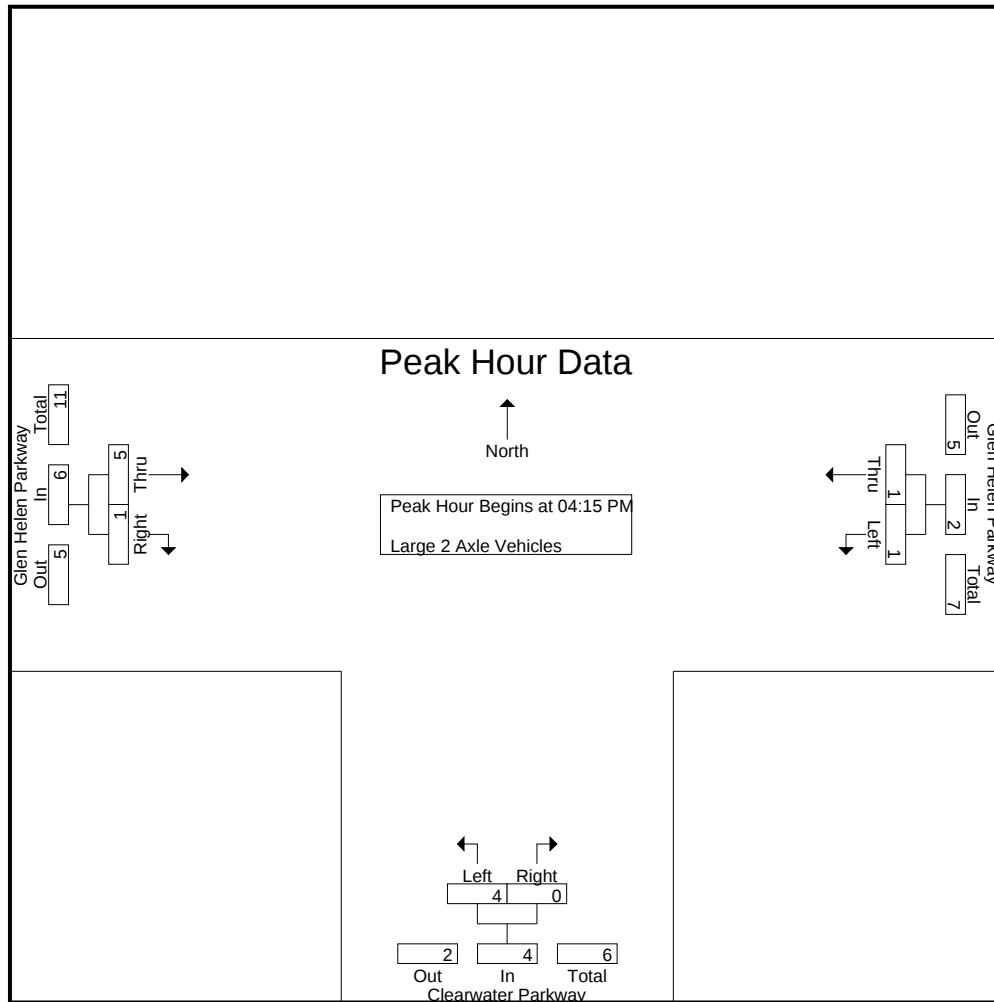
Groups Printed- Large 2 Axle Vehicles

	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	2	1	3	0	1	1	2	2	4	8
04:15 PM	0	0	0	2	0	2	1	0	1	3
04:30 PM	1	0	1	1	0	1	0	0	0	2
04:45 PM	0	0	0	1	0	1	1	0	1	2
Total	3	1	4	4	1	5	4	2	6	15
05:00 PM	0	1	1	0	0	0	3	1	4	5
05:15 PM	0	0	0	2	0	2	4	0	4	6
05:30 PM	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	1	0	1	0	0	0	1
Total	0	1	1	3	0	3	8	1	9	13
Grand Total	3	2	5	7	1	8	12	3	15	28
Apprch %	60	40		87.5	12.5		80	20		
Total %	10.7	7.1	17.9	25	3.6	28.6	42.9	10.7	53.6	

	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	2	0	2	1	0	1	3
04:30 PM	1	0	1	1	0	1	0	0	0	2
04:45 PM	0	0	0	1	0	1	1	0	1	2
05:00 PM	0	1	1	0	0	0	3	1	4	5
Total Volume	1	1	2	4	0	4	5	1	6	12
% App. Total	50	50		100	0		83.3	16.7		
PHF	.250	.250	.500	.500	.000	.500	.417	.250	.375	.600

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen PM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	2	0	2	1	0	1
+15 mins.	1	0	1	1	0	1	0	0	0
+30 mins.	0	0	0	1	0	1	1	0	1
+45 mins.	0	1	1	0	0	0	3	1	4
Total Volume	1	1	2	4	0	4	5	1	6
% App. Total	50	50		100	0		83.3	16.7	
PHF	.250	.250	.500	.500	.000	.500	.417	.250	.375

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen PM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 1

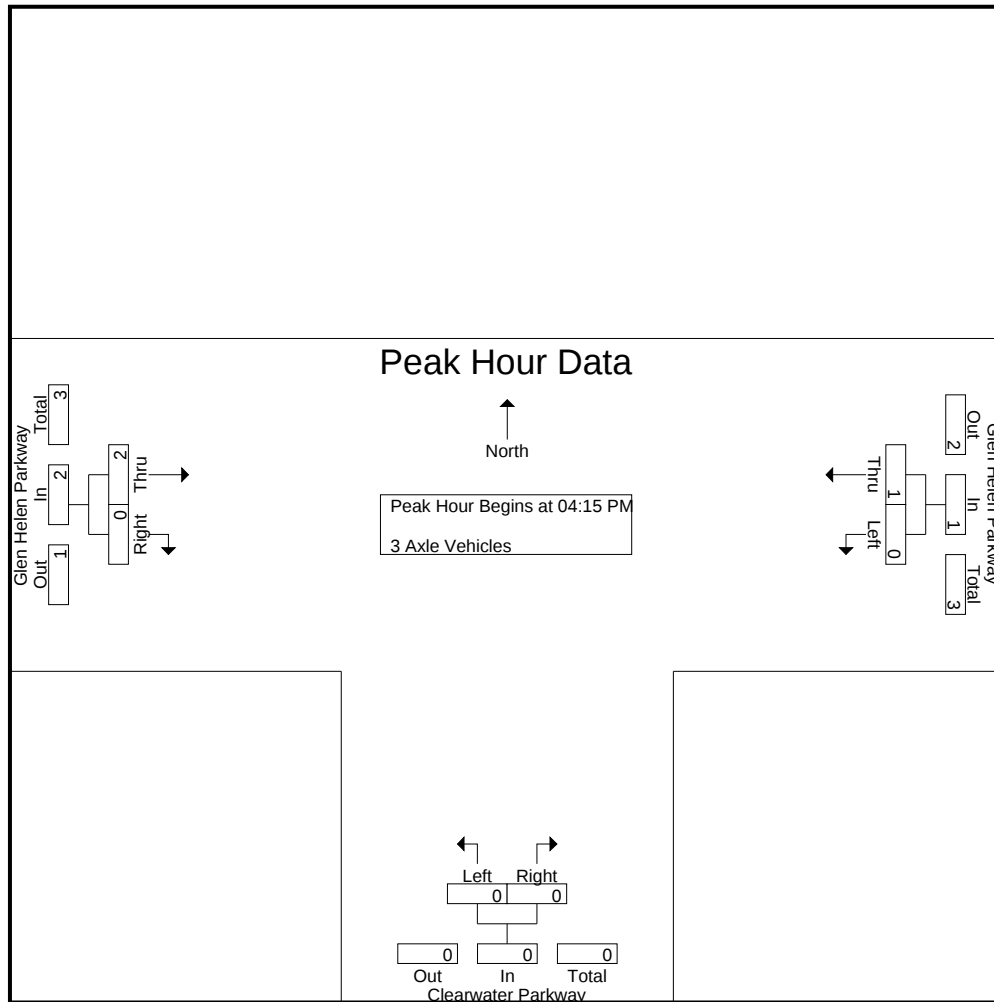
Groups Printed- 3 Axle Vehicles

	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	1	0	1	1
Total	0	1	1	0	0	0	1	0	1	2
05:00 PM	0	1	1	0	0	0	1	0	1	2
05:15 PM	0	1	1	0	0	0	0	1	1	2
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	2	2	0	0	0	1	1	2	4
Grand Total	0	3	3	0	0	0	2	1	3	6
Apprch %	0	100		0	0		66.7	33.3		
Total %	0	50	50	0	0	0	33.3	16.7	50	

	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	1	0	1	1
05:00 PM	0	1	1	0	0	0	1	0	1	2
Total Volume	0	1	1	0	0	0	2	0	2	3
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.500	.000	.500	.375

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen PM
Site Code : 22523027
Start Date : 1/11/2023
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Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	1	0	1
+45 mins.	0	1	1	0	0	0	1	0	1
Total Volume	0	1	1	0	0	0	2	0	2
% App. Total	0	100		0	0		100	0	
PHF	.000	.250	.250	.000	.000	.000	.500	.000	.500

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen PM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 1

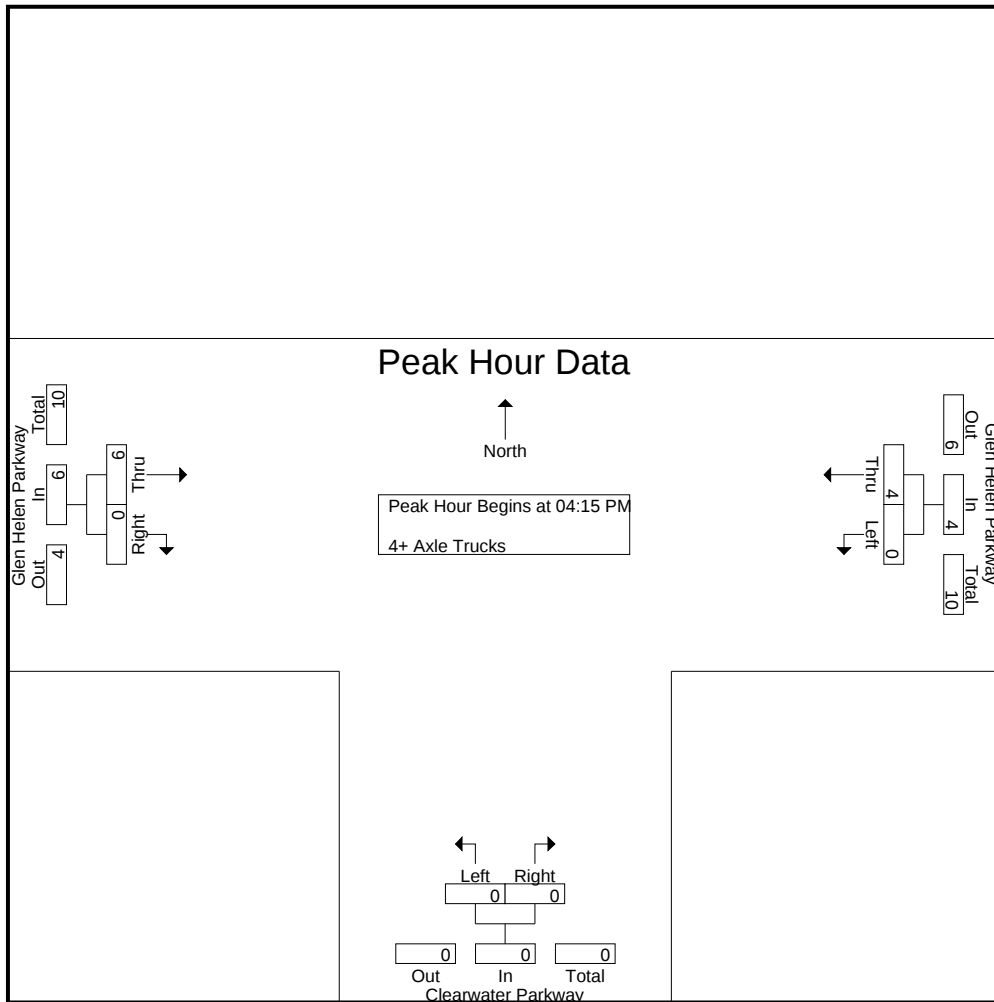
Groups Printed- 4+ Axle Trucks

	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	4	4	0	0	0	1	0	1	5
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	2	2	0	0	0	2	0	2	4
04:45 PM	0	1	1	0	0	0	1	0	1	2
Total	0	7	7	0	0	0	4	0	4	11
05:00 PM	0	1	1	0	0	0	3	0	3	4
05:15 PM	0	1	1	0	0	0	3	0	3	4
05:30 PM	0	1	1	0	0	0	2	0	2	3
05:45 PM	0	2	2	0	0	0	0	0	0	2
Total	0	5	5	0	0	0	8	0	8	13
Grand Total	0	12	12	0	0	0	12	0	12	24
Apprch %	0	100		0	0		100	0		
Total %	0	50	50	0	0	0	50	0	50	

	Glen Helen Parkway Westbound			Clearwater Parkway Northbound			Glen Helen Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	2	2	0	0	0	2	0	2	4
04:45 PM	0	1	1	0	0	0	1	0	1	2
05:00 PM	0	1	1	0	0	0	3	0	3	4
Total Volume	0	4	4	0	0	0	6	0	6	10
% App. Total	0	100		0	0		100	0		
PHF	.000	.500	.500	.000	.000	.000	.500	.000	.500	.625

City of San Bernardino
N/S: Clearwater Parkway
E/W: Glen Helen Parkway
Weather: Clear

File Name : 05_SBC_CW_Glen PM
Site Code : 22523027
Start Date : 1/11/2023
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Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	2	2	0	0	0	2	0	2
+30 mins.	0	1	1	0	0	0	1	0	1
+45 mins.	0	1	1	0	0	0	3	0	3
Total Volume	0	4	4	0	0	0	6	0	6
% App. Total	0	100		0	0		100	0	
PHF	.000	.500	.500	.000	.000	.000	.500	.000	.500

City of San Bernardino
N/S: Cajon Boulevard
E/W: Cajon Boulevard/Kendall Drive
Weather: Clear

File Name : 06_SBC_Caj_Ken AM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 1

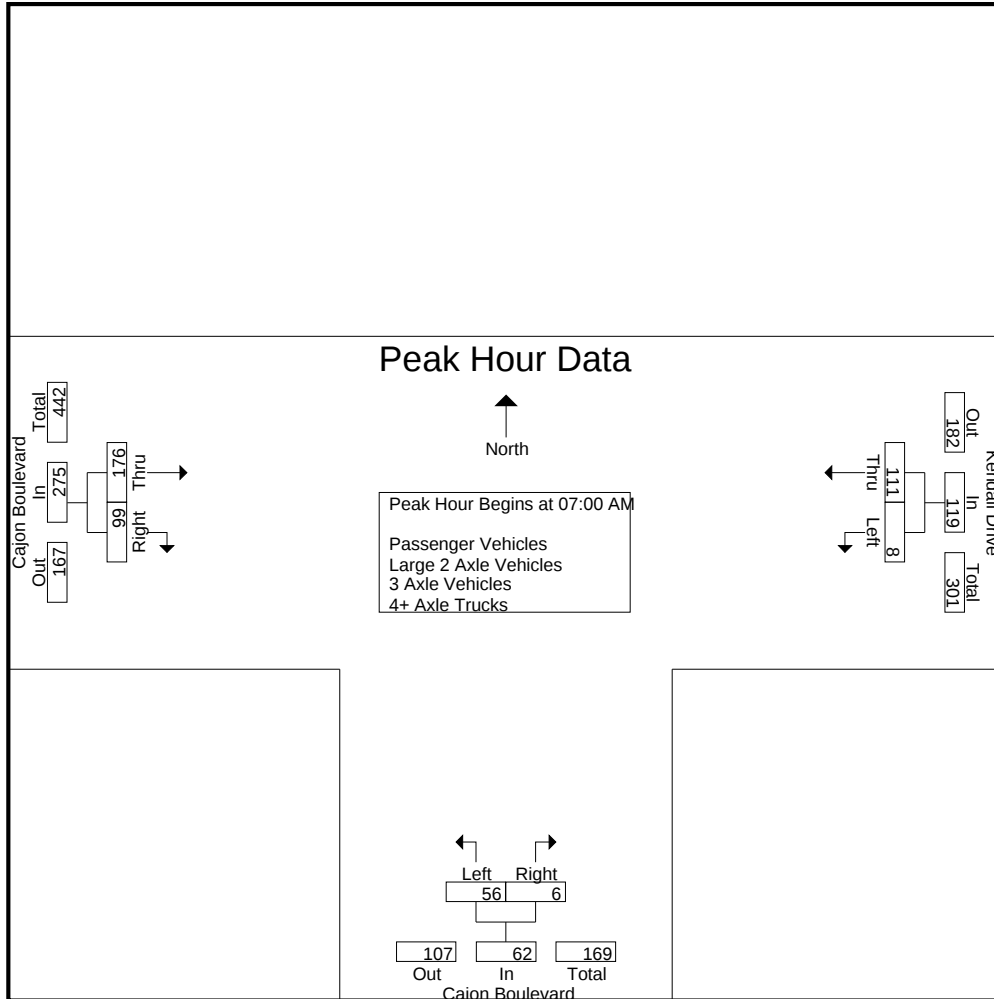
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	1	26	27	18	1	19	41	26	67	113
07:15 AM	2	32	34	13	0	13	48	21	69	116
07:30 AM	0	32	32	8	2	10	45	27	72	114
07:45 AM	5	21	26	17	3	20	42	25	67	113
Total	8	111	119	56	6	62	176	99	275	456
08:00 AM	2	25	27	16	0	16	30	28	58	101
08:15 AM	3	22	25	10	0	10	29	17	46	81
08:30 AM	0	27	27	17	1	18	27	19	46	91
08:45 AM	4	24	28	14	1	15	37	25	62	105
Total	9	98	107	57	2	59	123	89	212	378
Grand Total	17	209	226	113	8	121	299	188	487	834
Apprch %	7.5	92.5		93.4	6.6		61.4	38.6		
Total %	2	25.1	27.1	13.5	1	14.5	35.9	22.5	58.4	
Passenger Vehicles	11	166	177	82	8	90	266	149	415	682
% Passenger Vehicles	64.7	79.4	78.3	72.6	100	74.4	89	79.3	85.2	81.8
Large 2 Axle Vehicles	3	9	12	7	0	7	10	8	18	37
% Large 2 Axle Vehicles	17.6	4.3	5.3	6.2	0	5.8	3.3	4.3	3.7	4.4
3 Axle Vehicles	2	7	9	3	0	3	8	15	23	35
% 3 Axle Vehicles	11.8	3.3	4	2.7	0	2.5	2.7	8	4.7	4.2
4+ Axle Trucks	1	27	28	21	0	21	15	16	31	80
% 4+ Axle Trucks	5.9	12.9	12.4	18.6	0	17.4	5	8.5	6.4	9.6

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	26	27	18	1	19	41	26	67	113
07:15 AM	2	32	34	13	0	13	48	21	69	116
07:30 AM	0	32	32	8	2	10	45	27	72	114
07:45 AM	5	21	26	17	3	20	42	25	67	113
Total Volume	8	111	119	56	6	62	176	99	275	456
% App. Total	6.7	93.3		90.3	9.7		64	36		
PHF	.400	.867	.875	.778	.500	.775	.917	.917	.955	.983

City of San Bernardino
N/S: Cajon Boulevard
E/W: Cajon Boulevard/Kendall Drive
Weather: Clear

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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:45 AM			07:00 AM		
+0 mins.	1	26	27	17	3	20	41	26	67
+15 mins.	2	32	34	16	0	16	48	21	69
+30 mins.	0	32	32	10	0	10	45	27	72
+45 mins.	5	21	26	17	1	18	42	25	67
Total Volume	8	111	119	60	4	64	176	99	275
% App. Total	6.7	93.3		93.8	6.2		64	36	
PHF	.400	.867	.875	.882	.333	.800	.917	.917	.955

City of San Bernardino
N/S: Cajon Boulevard
E/W: Cajon Boulevard/Kendall Drive
Weather: Clear

File Name : 06_SBC_Caj_Ken AM
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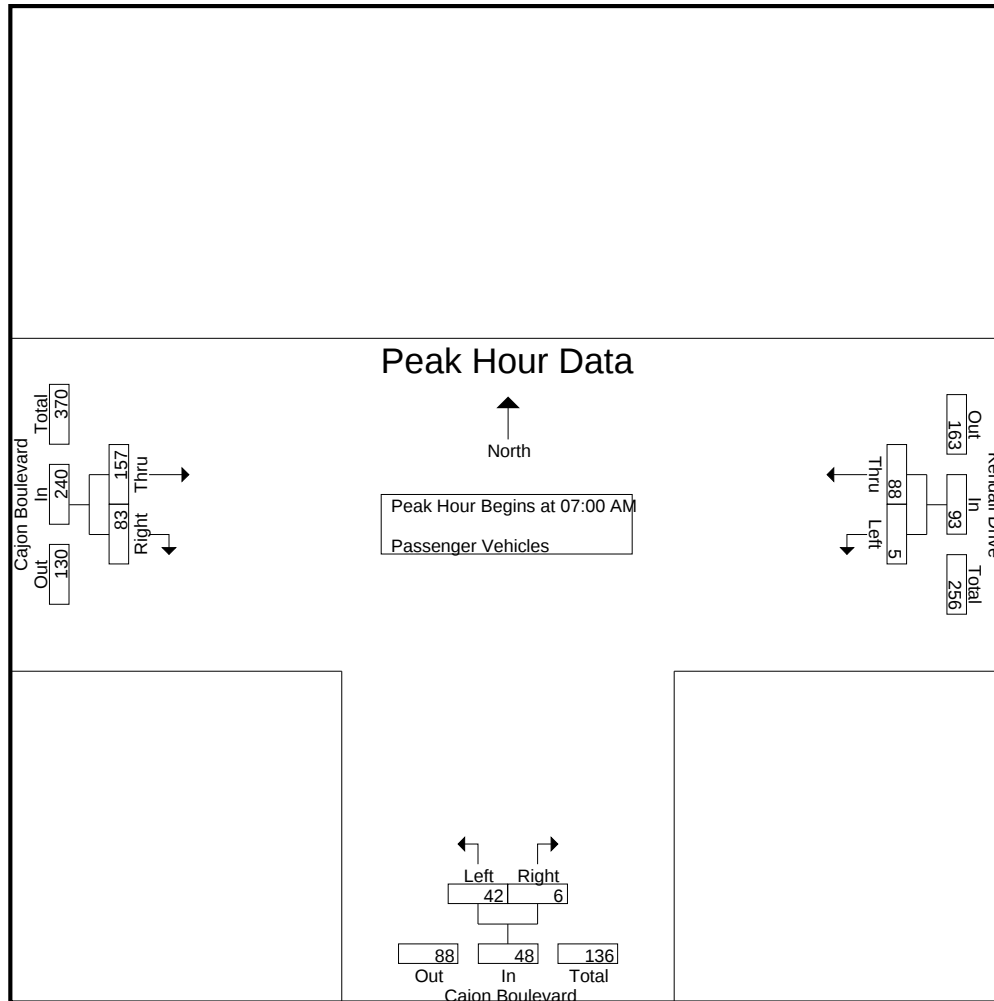
Groups Printed- Passenger Vehicles

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	16	16	14	1	15	38	22	60	91
07:15 AM	1	26	27	8	0	8	41	16	57	92
07:30 AM	0	25	25	7	2	9	40	23	63	97
07:45 AM	4	21	25	13	3	16	38	22	60	101
Total	5	88	93	42	6	48	157	83	240	381
08:00 AM	0	22	22	10	0	10	29	20	49	81
08:15 AM	2	18	20	6	0	6	24	15	39	65
08:30 AM	0	20	20	12	1	13	25	13	38	71
08:45 AM	4	18	22	12	1	13	31	18	49	84
Total	6	78	84	40	2	42	109	66	175	301
Grand Total	11	166	177	82	8	90	266	149	415	682
Apprch %	6.2	93.8		91.1	8.9		64.1	35.9		
Total %	1.6	24.3	26	12	1.2	13.2	39	21.8	60.9	

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	16	16	14	1	15	38	22	60	91
07:15 AM	1	26	27	8	0	8	41	16	57	92
07:30 AM	0	25	25	7	2	9	40	23	63	97
07:45 AM	4	21	25	13	3	16	38	22	60	101
Total Volume	5	88	93	42	6	48	157	83	240	381
% App. Total	5.4	94.6		87.5	12.5		65.4	34.6		
PHF	.313	.846	.861	.750	.500	.750	.957	.902	.952	.943

City of San Bernardino
N/S: Cajon Boulevard
E/W: Cajon Boulevard/Kendall Drive
Weather: Clear

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	16	16	14	1	15	38	22	60
+15 mins.	1	26	27	8	0	8	41	16	57
+30 mins.	0	25	25	7	2	9	40	23	63
+45 mins.	4	21	25	13	3	16	38	22	60
Total Volume	5	88	93	42	6	48	157	83	240
% App. Total	5.4	94.6		87.5	12.5		65.4	34.6	
PHF	.313	.846	.861	.750	.500	.750	.957	.902	.952

City of San Bernardino
N/S: Cajon Boulevard
E/W: Cajon Boulevard/Kendall Drive
Weather: Clear

File Name : 06_SBC_Caj_Ken AM
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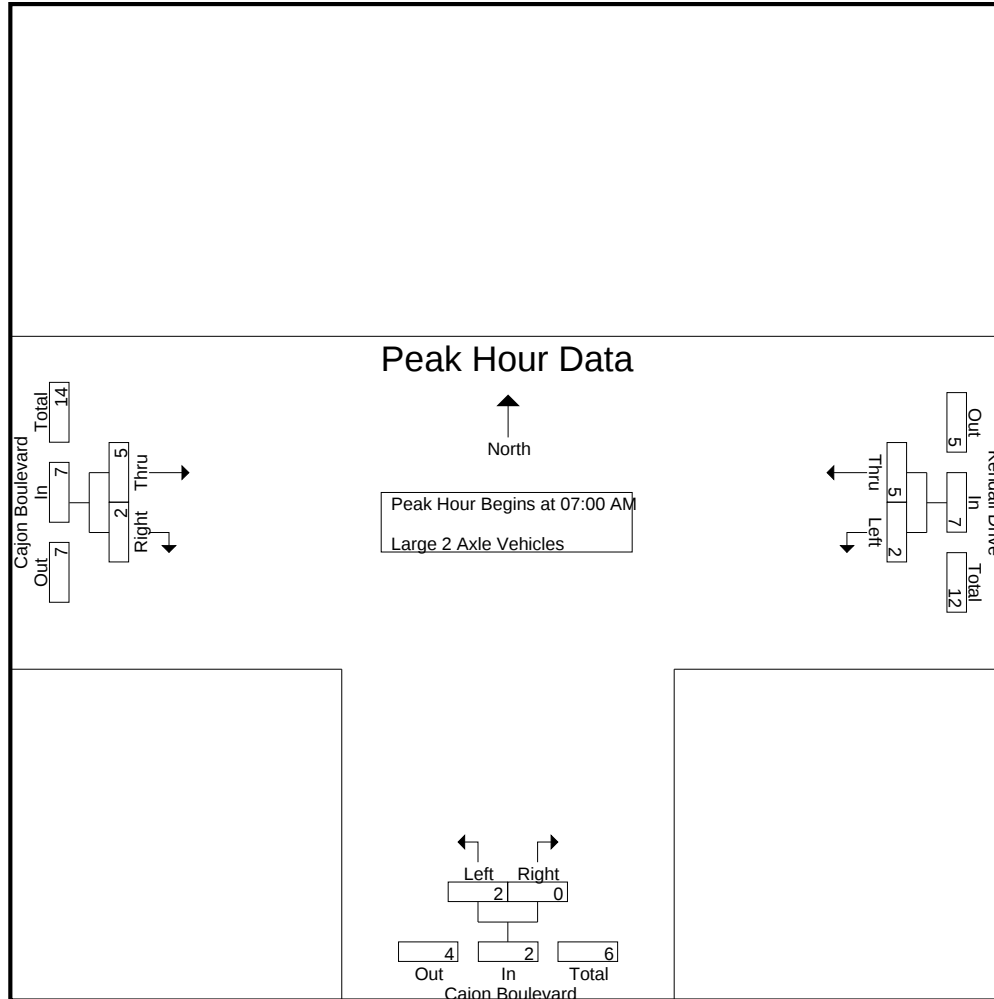
Groups Printed- Large 2 Axle Vehicles

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	1	4	5	2	0	2	2	1	3	10
07:15 AM	0	1	1	0	0	0	3	0	3	4
07:30 AM	0	0	0	0	0	0	0	1	1	1
07:45 AM	1	0	1	0	0	0	0	0	0	1
Total	2	5	7	2	0	2	5	2	7	16
08:00 AM	0	1	1	1	0	1	0	3	3	5
08:15 AM	1	1	2	1	0	1	2	0	2	5
08:30 AM	0	2	2	1	0	1	1	0	1	4
08:45 AM	0	0	0	2	0	2	2	3	5	7
Total	1	4	5	5	0	5	5	6	11	21
Grand Total	3	9	12	7	0	7	10	8	18	37
Apprch %	25	75		100	0		55.6	44.4		
Total %	8.1	24.3	32.4	18.9	0	18.9	27	21.6	48.6	

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	4	5	2	0	2	2	1	3	10
07:15 AM	0	1	1	0	0	0	3	0	3	4
07:30 AM	0	0	0	0	0	0	0	1	1	1
07:45 AM	1	0	1	0	0	0	0	0	0	1
Total Volume	2	5	7	2	0	2	5	2	7	16
% App. Total	28.6	71.4		100	0		71.4	28.6		
PHF	.500	.313	.350	.250	.000	.250	.417	.500	.583	.400

City of San Bernardino
N/S: Cajon Boulevard
E/W: Cajon Boulevard/Kendall Drive
Weather: Clear

File Name : 06_SBC_Caj_Ken AM
Site Code : 22523027
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	1	4	5	2	0	2	2	1	3
+15 mins.	0	1	1	0	0	0	3	0	3
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	1	0	1	0	0	0	0	0	0
Total Volume	2	5	7	2	0	2	5	2	7
% App. Total	28.6	71.4		100	0		71.4	28.6	
PHF	.500	.313	.350	.250	.000	.250	.417	.500	.583

City of San Bernardino
N/S: Cajon Boulevard
E/W: Cajon Boulevard/Kendall Drive
Weather: Clear

File Name : 06_SBC_Caj_Ken AM
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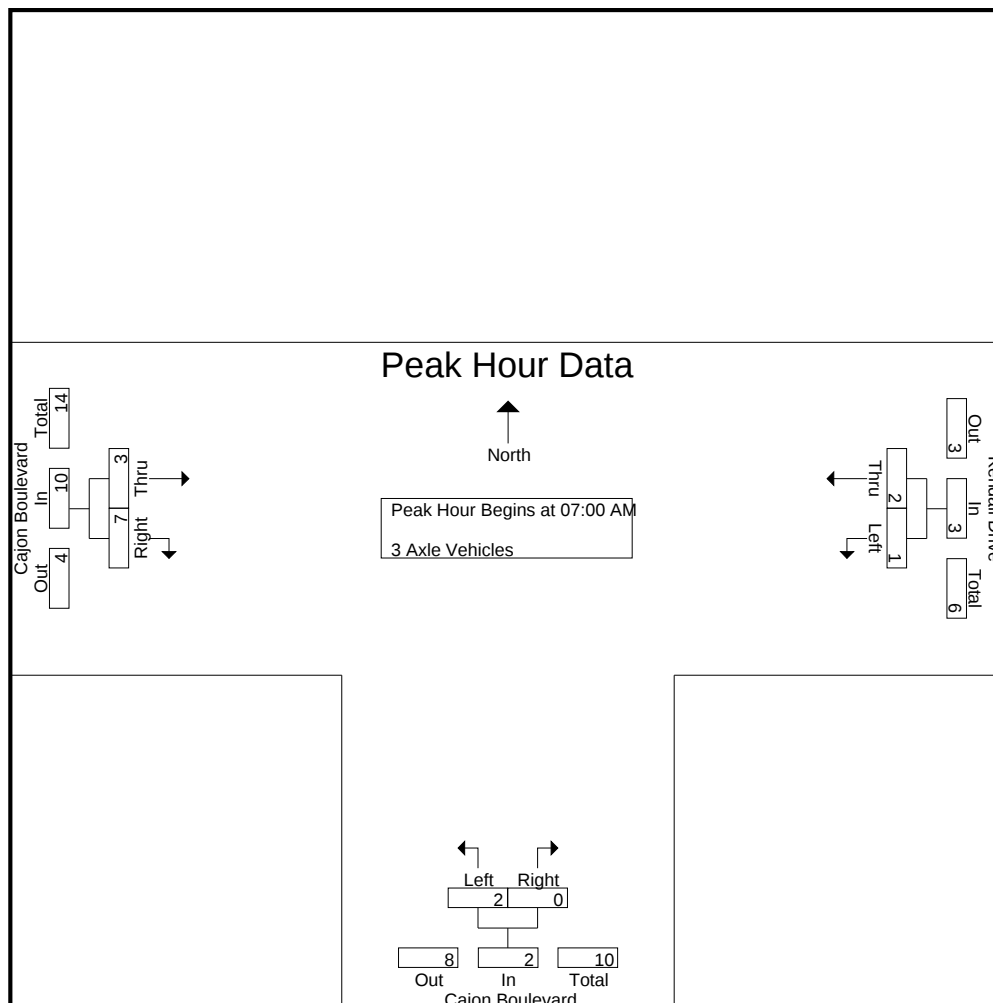
Groups Printed- 3 Axle Vehicles

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	1	0	1	1	2	3	4
07:15 AM	1	0	1	0	0	0	1	3	4	5
07:30 AM	0	2	2	0	0	0	1	0	1	3
07:45 AM	0	0	0	1	0	1	0	2	2	3
Total	1	2	3	2	0	2	3	7	10	15
08:00 AM	1	1	2	0	0	0	0	1	1	3
08:15 AM	0	1	1	1	0	1	1	1	2	4
08:30 AM	0	1	1	0	0	0	1	4	5	6
08:45 AM	0	2	2	0	0	0	3	2	5	7
Total	1	5	6	1	0	1	5	8	13	20
Grand Total	2	7	9	3	0	3	8	15	23	35
Apprch %	22.2	77.8		100	0		34.8	65.2		
Total %	5.7	20	25.7	8.6	0	8.6	22.9	42.9	65.7	

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	1	0	1	1	2	3	4
07:15 AM	1	0	1	0	0	0	1	3	4	5
07:30 AM	0	2	2	0	0	0	1	0	1	3
07:45 AM	0	0	0	1	0	1	0	2	2	3
Total Volume	1	2	3	2	0	2	3	7	10	15
% App. Total	33.3	66.7		100	0		30	70		
PHF	.250	.250	.375	.500	.000	.500	.750	.583	.625	.750

City of San Bernardino
N/S: Cajon Boulevard
E/W: Cajon Boulevard/Kendall Drive
Weather: Clear

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	1	0	1	1	2	3
+15 mins.	1	0	1	0	0	0	1	3	4
+30 mins.	0	2	2	0	0	0	1	0	1
+45 mins.	0	0	0	1	0	1	0	2	2
Total Volume	1	2	3	2	0	2	3	7	10
% App. Total	33.3	66.7		100	0		30	70	
PHF	.250	.250	.375	.500	.000	.500	.750	.583	.625

City of San Bernardino
N/S: Cajon Boulevard
E/W: Cajon Boulevard/Kendall Drive
Weather: Clear

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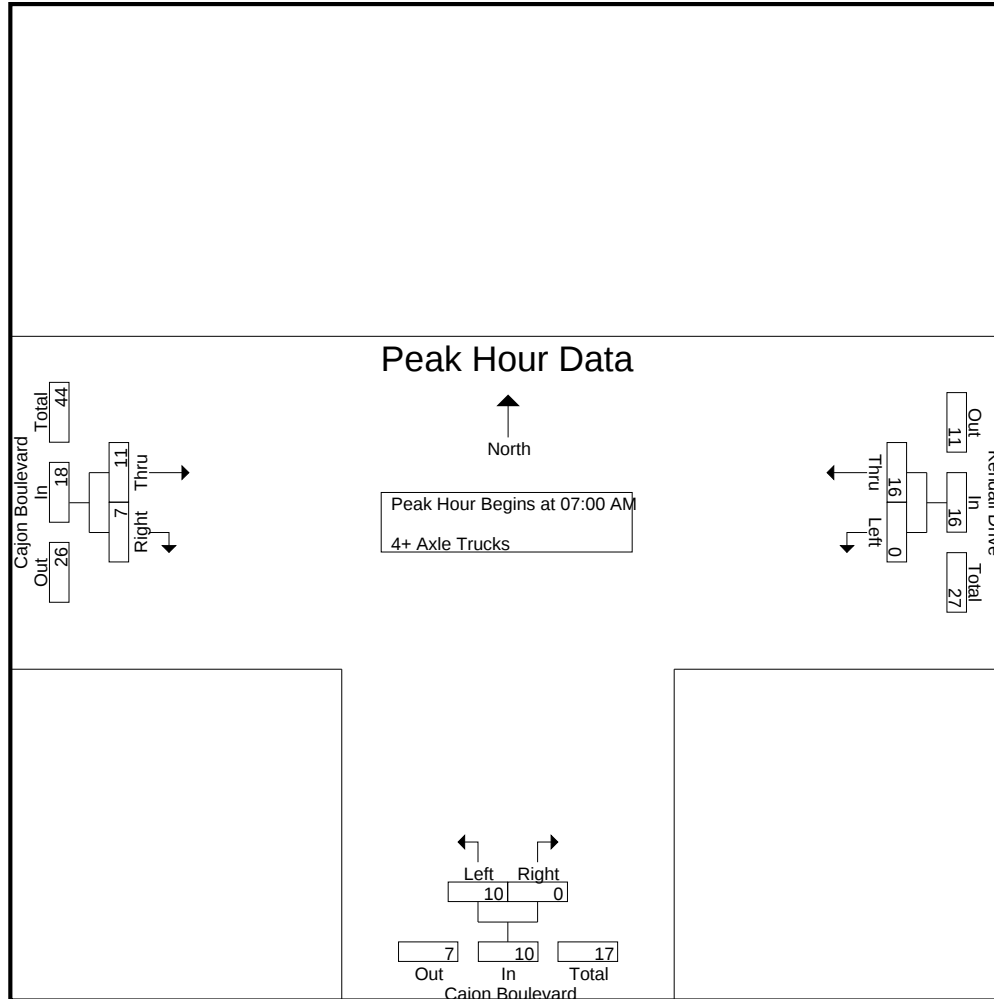
Groups Printed- 4+ Axle Trucks

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	6	6	1	0	1	0	1	1	8
07:15 AM	0	5	5	5	0	5	3	2	5	15
07:30 AM	0	5	5	1	0	1	4	3	7	13
07:45 AM	0	0	0	3	0	3	4	1	5	8
Total	0	16	16	10	0	10	11	7	18	44
08:00 AM	1	1	2	5	0	5	1	4	5	12
08:15 AM	0	2	2	2	0	2	2	1	3	7
08:30 AM	0	4	4	4	0	4	0	2	2	10
08:45 AM	0	4	4	0	0	0	1	2	3	7
Total	1	11	12	11	0	11	4	9	13	36
Grand Total	1	27	28	21	0	21	15	16	31	80
Apprch %	3.6	96.4		100	0		48.4	51.6		
Total %	1.2	33.8	35	26.2	0	26.2	18.8	20	38.8	

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	6	6	1	0	1	0	1	1	8
07:15 AM	0	5	5	5	0	5	3	2	5	15
07:30 AM	0	5	5	1	0	1	4	3	7	13
07:45 AM	0	0	0	3	0	3	4	1	5	8
Total Volume	0	16	16	10	0	10	11	7	18	44
% App. Total	0	100		100	0		61.1	38.9		
PHF	.000	.667	.667	.500	.000	.500	.688	.583	.643	.733

City of San Bernardino
N/S: Cajon Boulevard
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File Name : 06_SBC_Caj_Ken AM
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	6	6	1	0	1	0	1	1
+15 mins.	0	5	5	5	0	5	3	2	5
+30 mins.	0	5	5	1	0	1	4	3	7
+45 mins.	0	0	0	3	0	3	4	1	5
Total Volume	0	16	16	10	0	10	11	7	18
% App. Total	0	100		100	0		61.1	38.9	
PHF	.000	.667	.667	.500	.000	.500	.688	.583	.643

City of San Bernardino
N/S: Cajon Boulevard
E/W: Cajon Boulevard/Kendall Drive
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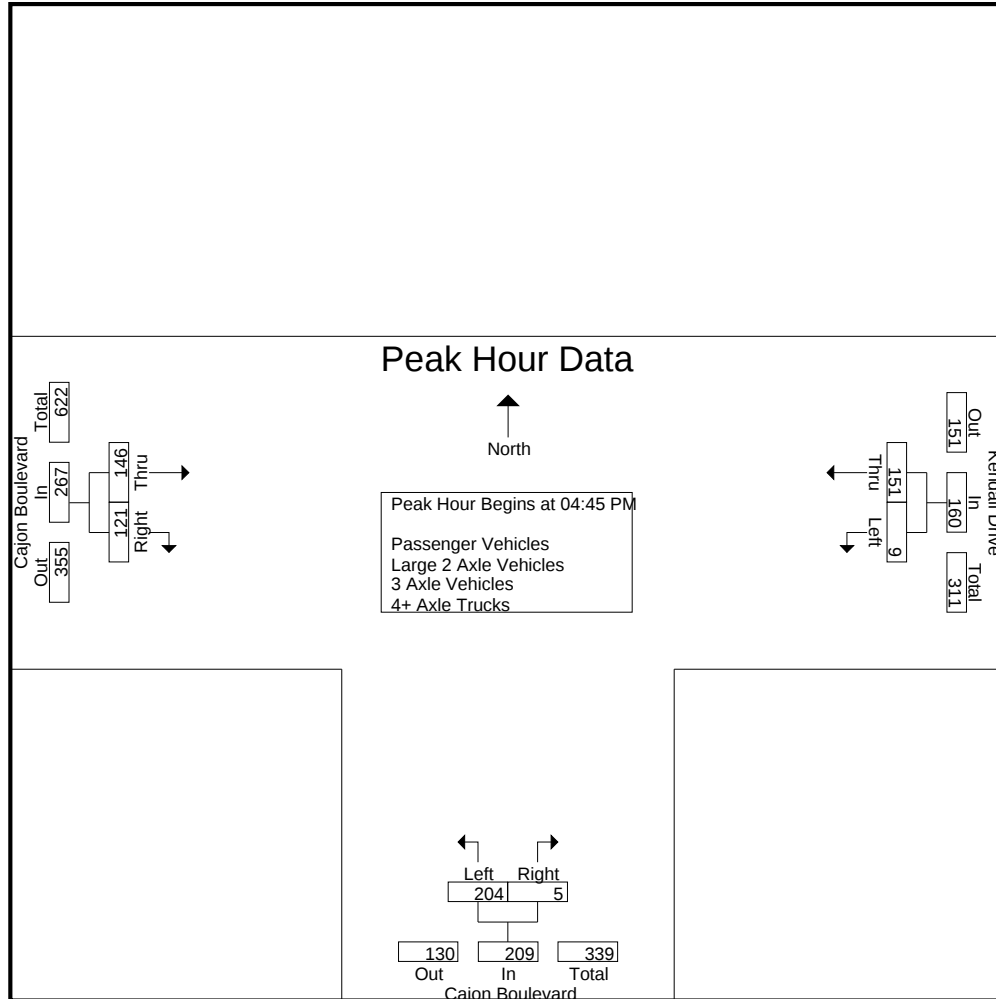
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	1	47	48	28	1	29	41	22	63	140
04:15 PM	1	50	51	35	1	36	40	25	65	152
04:30 PM	0	46	46	69	2	71	36	20	56	173
04:45 PM	1	36	37	56	0	56	38	20	58	151
Total	3	179	182	188	4	192	155	87	242	616
05:00 PM	4	40	44	43	1	44	39	26	65	153
05:15 PM	1	37	38	48	3	51	38	29	67	156
05:30 PM	3	38	41	57	1	58	31	46	77	176
05:45 PM	1	26	27	37	3	40	30	32	62	129
Total	9	141	150	185	8	193	138	133	271	614
Grand Total	12	320	332	373	12	385	293	220	513	1230
Apprch %	3.6	96.4		96.9	3.1		57.1	42.9		
Total %	1	26		30.3	1	31.3	23.8	17.9	41.7	
Passenger Vehicles	9	272	281	339	11	350	257	179	436	1067
% Passenger Vehicles	75	85	84.6	90.9	91.7	90.9	87.7	81.4	85	86.7
Large 2 Axle Vehicles	0	7	7	5	1	6	7	7	14	27
% Large 2 Axle Vehicles	0	2.2	2.1	1.3	8.3	1.6	2.4	3.2	2.7	2.2
3 Axle Vehicles	1	6	7	3	0	3	7	5	12	22
% 3 Axle Vehicles	8.3	1.9	2.1	0.8	0	0.8	2.4	2.3	2.3	1.8
4+ Axle Trucks	2	35	37	26	0	26	22	29	51	114
% 4+ Axle Trucks	16.7	10.9	11.1	7	0	6.8	7.5	13.2	9.9	9.3

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	1	36	37	56	0	56	38	20	58	151
05:00 PM	4	40	44	43	1	44	39	26	65	153
05:15 PM	1	37	38	48	3	51	38	29	67	156
05:30 PM	3	38	41	57	1	58	31	46	77	176
Total Volume	9	151	160	204	5	209	146	121	267	636
% App. Total	5.6	94.4		97.6	2.4		54.7	45.3		
PHF	.563	.944	.909	.895	.417	.901	.936	.658	.867	.903

City of San Bernardino
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E/W: Cajon Boulevard/Kendall Drive
Weather: Clear

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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:30 PM			05:00 PM		
+0 mins.	1	47	48	69	2	71	39	26	65
+15 mins.	1	50	51	56	0	56	38	29	67
+30 mins.	0	46	46	43	1	44	31	46	77
+45 mins.	1	36	37	48	3	51	30	32	62
Total Volume	3	179	182	216	6	222	138	133	271
% App. Total	1.6	98.4		97.3	2.7		50.9	49.1	
PHF	.750	.895	.892	.783	.500	.782	.885	.723	.880

City of San Bernardino
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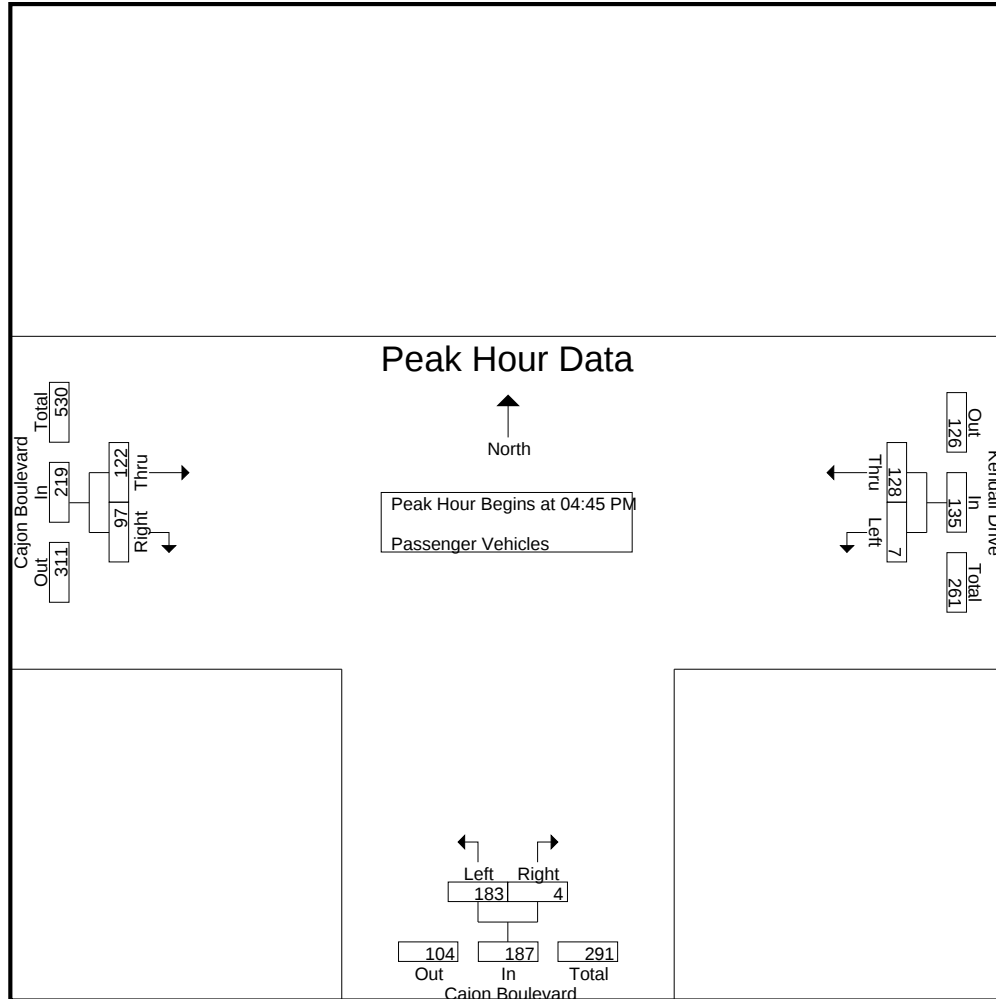
Groups Printed- Passenger Vehicles

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	1	38	39	24	1	25	35	19	54	118
04:15 PM	0	46	46	32	1	33	35	20	55	134
04:30 PM	0	38	38	66	2	68	35	16	51	157
04:45 PM	0	27	27	50	0	50	35	14	49	126
Total	1	149	150	172	4	176	140	69	209	535
05:00 PM	3	34	37	38	1	39	32	22	54	130
05:15 PM	1	33	34	43	2	45	26	20	46	125
05:30 PM	3	34	37	52	1	53	29	41	70	160
05:45 PM	1	22	23	34	3	37	30	27	57	117
Total	8	123	131	167	7	174	117	110	227	532
Grand Total	9	272	281	339	11	350	257	179	436	1067
Apprch %	3.2	96.8		96.9	3.1		58.9	41.1		
Total %	0.8	25.5	26.3	31.8	1	32.8	24.1	16.8	40.9	

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	27	27	50	0	50	35	14	49	126
05:00 PM	3	34	37	38	1	39	32	22	54	130
05:15 PM	1	33	34	43	2	45	26	20	46	125
05:30 PM	3	34	37	52	1	53	29	41	70	160
Total Volume	7	128	135	183	4	187	122	97	219	541
% App. Total	5.2	94.8		97.9	2.1		55.7	44.3		
PHF	.583	.941	.912	.880	.500	.882	.871	.591	.782	.845

City of San Bernardino
N/S: Cajon Boulevard
E/W: Cajon Boulevard/Kendall Drive
Weather: Clear

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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	27	27	50	0	50	35	14	49
+15 mins.	3	34	37	38	1	39	32	22	54
+30 mins.	1	33	34	43	2	45	26	20	46
+45 mins.	3	34	37	52	1	53	29	41	70
Total Volume	7	128	135	183	4	187	122	97	219
% App. Total	5.2	94.8		97.9	2.1		55.7	44.3	
PHF	.583	.941	.912	.880	.500	.882	.871	.591	.782

City of San Bernardino
N/S: Cajon Boulevard
E/W: Cajon Boulevard/Kendall Drive
Weather: Clear

File Name : 06_SBC_Caj_Ken PM
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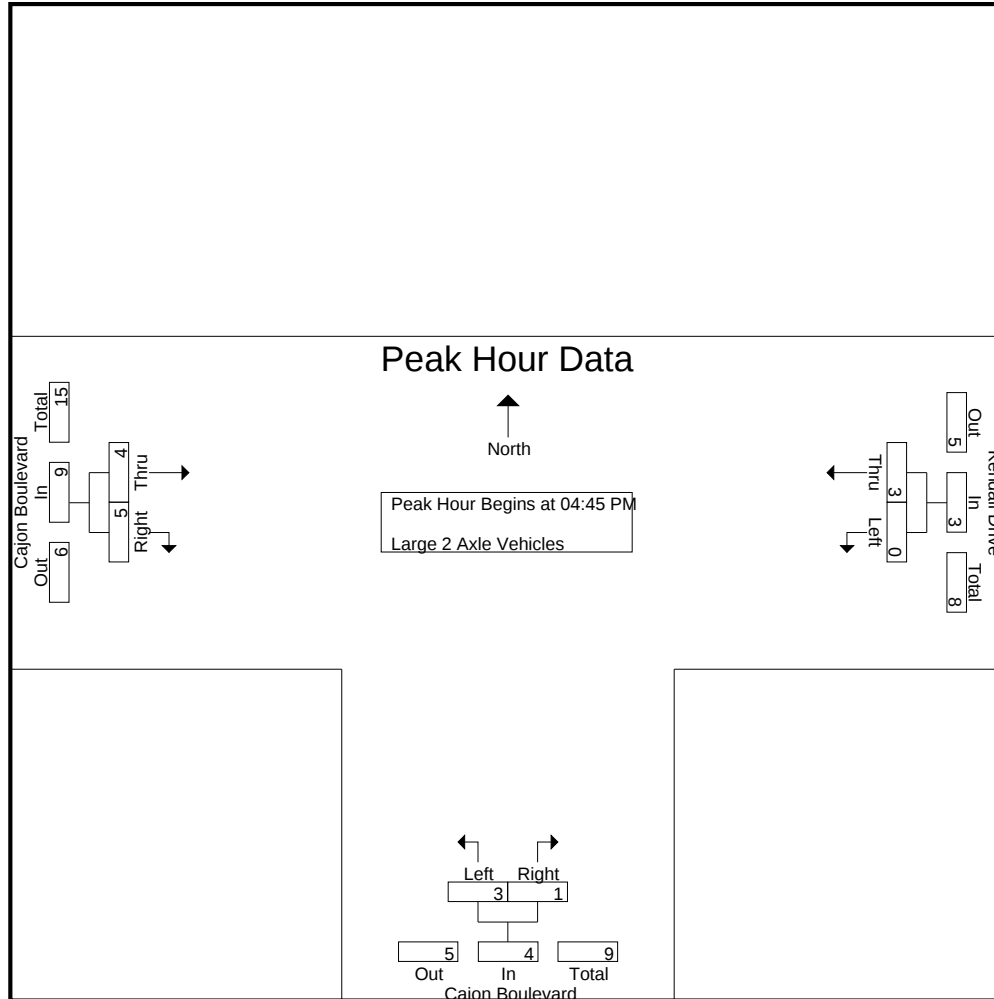
Groups Printed- Large 2 Axle Vehicles

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	1	0	1	1	1	2	4
04:15 PM	0	0	0	0	0	0	2	1	3	3
04:30 PM	0	3	3	1	0	1	0	0	0	4
04:45 PM	0	1	1	1	0	1	0	1	1	3
Total	0	5	5	3	0	3	3	3	6	14
05:00 PM	0	1	1	0	0	0	1	1	2	3
05:15 PM	0	1	1	1	1	2	2	2	4	7
05:30 PM	0	0	0	1	0	1	1	1	2	3
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	2	2	2	1	3	4	4	8	13
Grand Total	0	7	7	5	1	6	7	7	14	27
Apprch %	0	100		83.3	16.7		50	50		
Total %	0	25.9	25.9	18.5	3.7	22.2	25.9	25.9	51.9	

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	1	1	1	0	1	0	1	1	3
05:00 PM	0	1	1	0	0	0	1	1	2	3
05:15 PM	0	1	1	1	1	2	2	2	4	7
05:30 PM	0	0	0	1	0	1	1	1	2	3
Total Volume	0	3	3	3	1	4	4	5	9	16
% App. Total	0	100		75	25		44.4	55.6		
PHF	.000	.750	.750	.750	.250	.500	.500	.625	.563	.571

City of San Bernardino
N/S: Cajon Boulevard
E/W: Cajon Boulevard/Kendall Drive
Weather: Clear

File Name : 06_SBC_Caj_Ken PM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	1	1	1	0	1	0	1	1
+15 mins.	0	1	1	0	0	0	1	1	2
+30 mins.	0	1	1	1	1	2	2	2	4
+45 mins.	0	0	0	1	0	1	1	1	2
Total Volume	0	3	3	3	1	4	4	5	9
% App. Total	0	100		75	25		44.4	55.6	
PHF	.000	.750	.750	.750	.250	.500	.500	.625	.563

City of San Bernardino
N/S: Cajon Boulevard
E/W: Cajon Boulevard/Kendall Drive
Weather: Clear

File Name : 06_SBC_Caj_Ken PM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 1

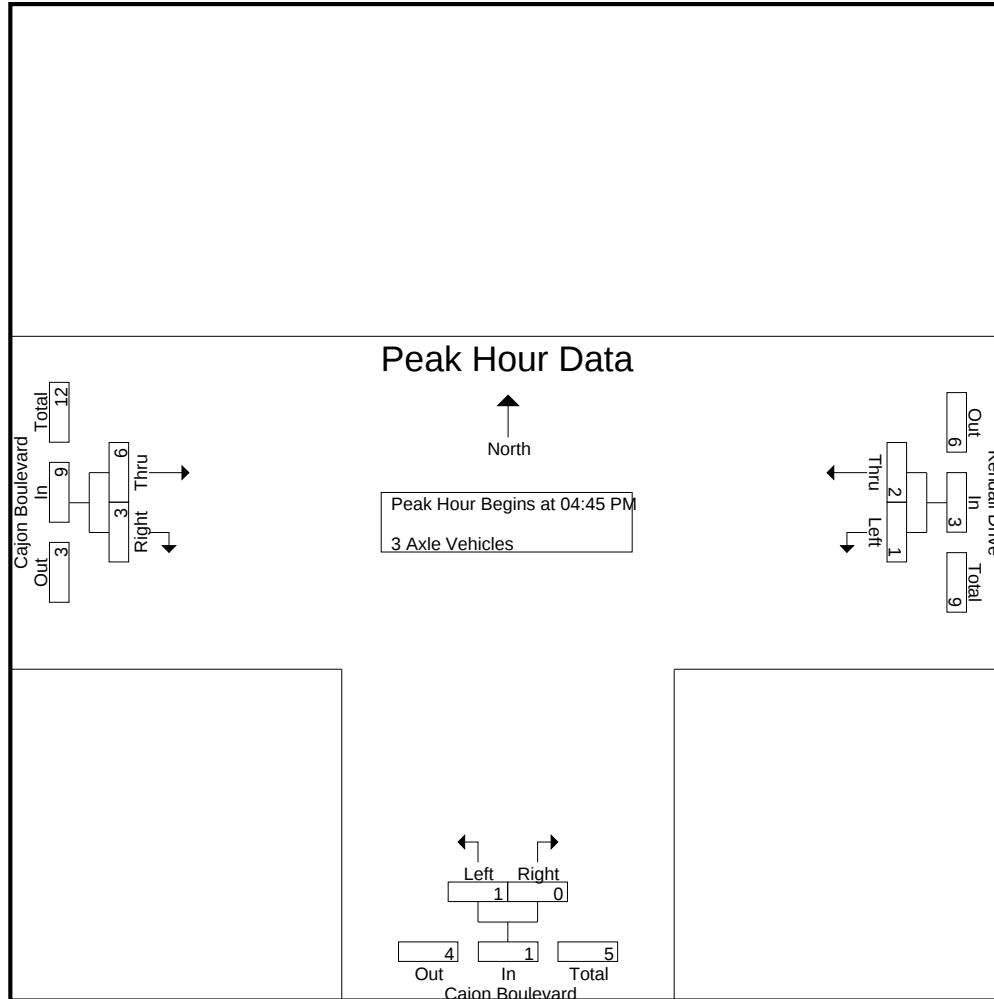
Groups Printed- 3 Axle Vehicles

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	2	2	1	0	1	0	0	0	3
04:15 PM	0	1	1	1	0	1	1	2	3	5
04:30 PM	0	1	1	0	0	0	0	0	0	1
04:45 PM	0	1	1	0	0	0	0	1	1	2
Total	0	5	5	2	0	2	1	3	4	11
05:00 PM	1	1	2	0	0	0	2	0	2	4
05:15 PM	0	0	0	1	0	1	4	2	6	7
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	1	2	1	0	1	6	2	8	11
Grand Total	1	6	7	3	0	3	7	5	12	22
Apprch %	14.3	85.7		100	0		58.3	41.7		
Total %	4.5	27.3	31.8	13.6	0	13.6	31.8	22.7	54.5	

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	1	1	0	0	0	0	1	1	2
05:00 PM	1	1	2	0	0	0	2	0	2	4
05:15 PM	0	0	0	1	0	1	4	2	6	7
05:30 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	2	3	1	0	1	6	3	9	13
% App. Total	33.3	66.7		100	0		66.7	33.3		
PHF	.250	.500	.375	.250	.000	.250	.375	.375	.375	.464

City of San Bernardino
N/S: Cajon Boulevard
E/W: Cajon Boulevard/Kendall Drive
Weather: Clear

File Name : 06_SBC_Caj_Ken PM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	1	1	0	0	0	0	1	1
+15 mins.	1	1	2	0	0	0	2	0	2
+30 mins.	0	0	0	1	0	1	4	2	6
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	1	2	3	1	0	1	6	3	9
% App. Total	33.3	66.7		100	0		66.7	33.3	
PHF	.250	.500	.375	.250	.000	.250	.375	.375	.375

City of San Bernardino
N/S: Cajon Boulevard
E/W: Cajon Boulevard/Kendall Drive
Weather: Clear

File Name : 06_SBC_Caj_Ken PM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 1

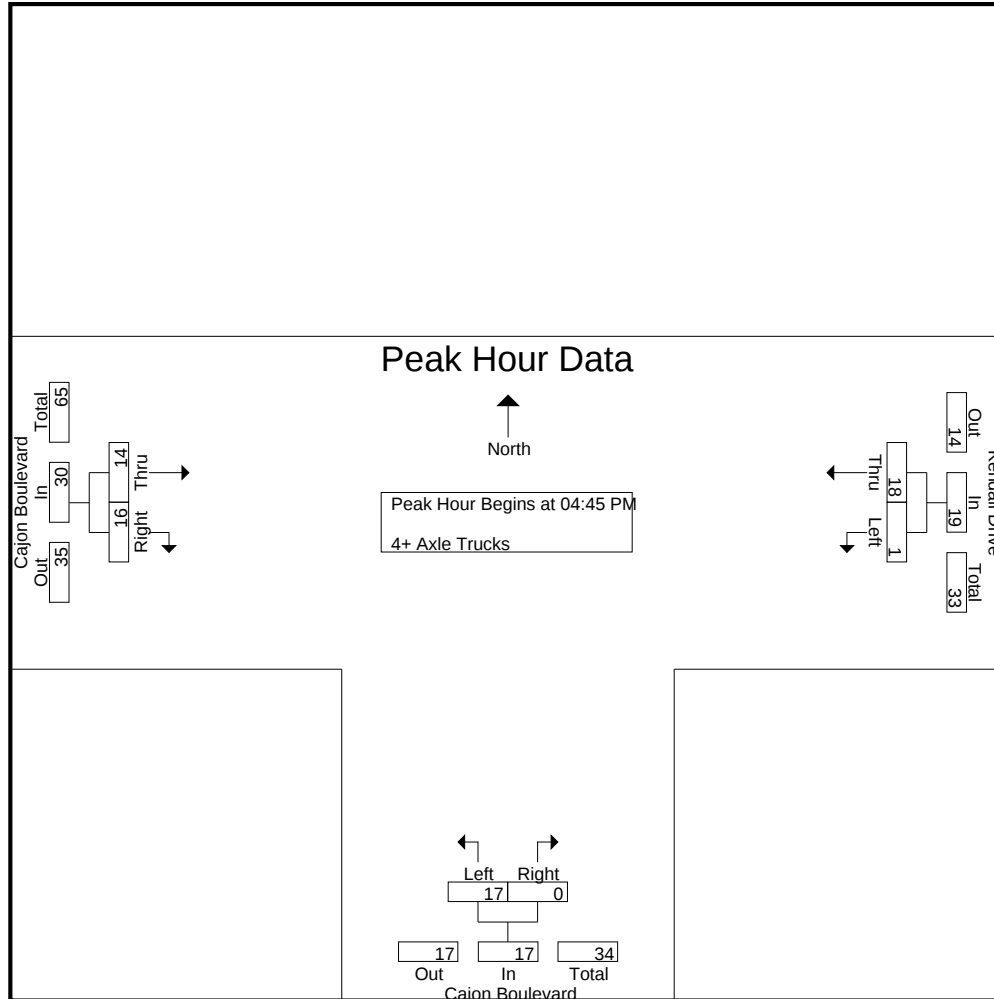
Groups Printed- 4+ Axle Trucks

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	6	6	2	0	2	5	2	7	15
04:15 PM	1	3	4	2	0	2	2	2	4	10
04:30 PM	0	4	4	2	0	2	1	4	5	11
04:45 PM	1	7	8	5	0	5	3	4	7	20
Total	2	20	22	11	0	11	11	12	23	56
05:00 PM	0	4	4	5	0	5	4	3	7	16
05:15 PM	0	3	3	3	0	3	6	5	11	17
05:30 PM	0	4	4	4	0	4	1	4	5	13
05:45 PM	0	4	4	3	0	3	0	5	5	12
Total	0	15	15	15	0	15	11	17	28	58
Grand Total	2	35	37	26	0	26	22	29	51	114
Apprch %	5.4	94.6		100	0		43.1	56.9		
Total %	1.8	30.7	32.5	22.8	0	22.8	19.3	25.4	44.7	

	Kendall Drive Westbound			Cajon Boulevard Northbound			Cajon Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	1	7	8	5	0	5	3	4	7	20
05:00 PM	0	4	4	5	0	5	4	3	7	16
05:15 PM	0	3	3	3	0	3	6	5	11	17
05:30 PM	0	4	4	4	0	4	1	4	5	13
Total Volume	1	18	19	17	0	17	14	16	30	66
% App. Total	5.3	94.7		100	0		46.7	53.3		
PHF	.250	.643	.594	.850	.000	.850	.583	.800	.682	.825

City of San Bernardino
N/S: Cajon Boulevard
E/W: Cajon Boulevard/Kendall Drive
Weather: Clear

File Name : 06_SBC_Caj_Ken PM
Site Code : 22523027
Start Date : 1/11/2023
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

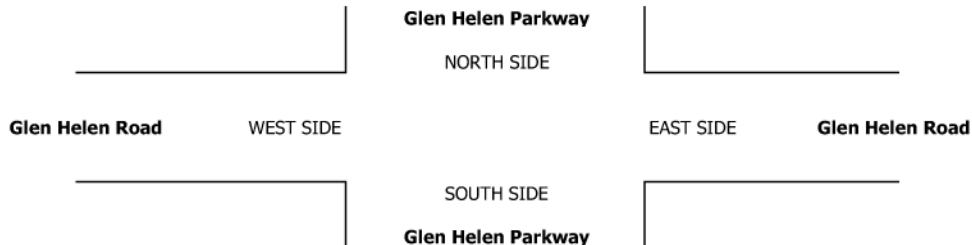
	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	1	7	8	5	0	5	3	4	7
+15 mins.	0	4	4	5	0	5	4	3	7
+30 mins.	0	3	3	3	0	3	6	5	11
+45 mins.	0	4	4	4	0	4	1	4	5
Total Volume	1	18	19	17	0	17	14	16	30
% App. Total	5.3	94.7		100	0		46.7	53.3	
PHF	.250	.643	.594	.850	.000	.850	.583	.800	.682

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

PROJECT #: SC3883
LOCATION #: 2
CONTROL: STOP E/W

U-TURNS				
NB	SB	EB	WB	TTL

				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0



APPENDIX D

INTERSECTION LEVEL OF SERVICE WORKSHEETS

EXISTING

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Devore Rd (NS) at I-215 NB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	8.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.249

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	100.00	100.00	180.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Base Volume Input [veh/h]	137	91	0	0	175	80	0	0	0	49	0	122
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	137	91	0	0	175	80	0	0	0	49	0	122
Peak Hour Factor	0.9151	0.9151	0.9500	0.9500	0.9151	0.9151	0.9500	0.9500	0.9500	0.9151	0.9151	0.9151
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	37	25	0	0	48	22	0	0	0	13	0	33
Total Analysis Volume [veh/h]	150	99	0	0	191	87	0	0	0	54	0	133
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	694	768	768	902		588	730
Degree of Utilization, x	0.22	0.13	0.25	0.10		0.09	0.18

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.82	0.44	0.98	0.32		0.30	0.66
95th-Percentile Queue Length [ft]	20.43	11.04	24.50	7.98		7.56	16.56
Approach Delay [s/veh]	8.82		8.36		0.00	8.94	
Approach LOS	A		A		A	A	
Intersection Delay [s/veh]	8.67						
Intersection LOS	A						

Intersection Level Of Service Report
Intersection 2: Devore Rd (NS) at I-215 SB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	10.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.485

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Base Volume Input [veh/h]	0	203	190	85	120	0	31	3	170	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	203	190	85	120	0	31	3	170	0	0	0
Peak Hour Factor	0.9500	0.9512	0.9512	0.9512	0.9512	0.9500	0.9512	0.9512	0.9512	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	53	50	22	32	0	8	1	45	0	0	0
Total Analysis Volume [veh/h]	0	213	200	89	126	0	33	3	179	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	852	685	757	570	699	
Degree of Utilization, x	0.48	0.13	0.17	0.06	0.26	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.69	0.45	0.59	0.20	1.02	
95th-Percentile Queue Length [ft]	67.30	11.14	14.87	5.04	25.44	
Approach Delay [s/veh]	11.14	8.54		9.59		0.00
Approach LOS	B	A		A		A
Intersection Delay [s/veh]	10.08					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	12.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.424

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	8	63	103	205	70	13	123	75	32	108	9	204
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	63	103	205	70	13	123	75	32	108	9	204
Peak Hour Factor	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	17	28	56	19	4	33	20	9	29	2	55
Total Analysis Volume [veh/h]	9	68	112	222	76	14	133	81	35	117	10	221
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	549	524	564	631	475	509	565	489	525	585
Degree of Utilization, x	0.34	0.42	0.13	0.02	0.28	0.16	0.06	0.24	0.02	0.38

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.52	2.09	0.46	0.07	1.14	0.56	0.20	0.93	0.06	1.75
95th-Percentile Queue Length [ft]	38.05	52.34	11.61	1.70	28.41	14.05	4.93	23.13	1.46	43.86
Approach Delay [s/veh]	12.95	13.19			12.00			12.40		
Approach LOS	B	B			B			B		
Intersection Delay [s/veh]	12.63									
Intersection LOS	B									

Intersection Level Of Service Report**Intersection 4: Glen Helen Pkwy (NS) at Glen Helen Spur (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Base Volume Input [veh/h]	171	0	0	210	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	171	0	0	210	0	0
Peak Hour Factor	0.9022	0.9022	0.9022	0.9022	0.9022	0.9022
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	47	0	0	58	0	0
Total Analysis Volume [veh/h]	190	0	0	233	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.58	0.00	11.09	9.20
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.14	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report**Intersection 5: Glen Helen Pkwy (NS) at Glen Helen Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	11.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Base Volume Input [veh/h]	2	191	2	3	207	6	1	0	2	2	0	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	191	2	3	207	6	1	0	2	2	0	4
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	53	1	1	58	2	0	0	1	1	0	1
Total Analysis Volume [veh/h]	2	214	2	3	232	7	1	0	2	2	0	4
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.69	0.00	0.00	7.64	0.00	0.00	11.24	12.24	8.94	11.12	12.28	8.89
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02
95th-Percentile Queue Length [ft/ln]	0.11	0.00	0.00	0.17	0.00	0.00	0.13	0.13	0.16	0.58	0.58	0.58
d_A, Approach Delay [s/veh]	0.07			0.09			9.70			9.64		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.27											
Intersection LOS	B											

Intersection Level Of Service Report**Intersection 6: Glen Helen Pkwy (NS) at Clearwater Pkwy (EW)**

Control Type:	Signalized	Delay (sec / veh):	24.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.403

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	1	0
Entry Pocket Length [ft]	100.00	126.00	218.00	100.00	122.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	3280.00	0.00	0.00
Speed [mph]	40.00		40.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Base Volume Input [veh/h]	112	222	98	118	408	69
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	112	222	98	118	408	69
Peak Hour Factor	0.8268	0.8268	0.8268	0.8268	0.8268	0.8268
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	67	30	36	123	21
Total Analysis Volume [veh/h]	135	269	119	143	493	83
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	2.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	42	0	14	56	29	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	31	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	50	50	7	62	15	15
g / C, Green / Cycle	0.59	0.59	0.09	0.72	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.04	0.18	0.07	0.04	0.15	0.05
s, saturation flow rate [veh/h]	3427	1530	1714	3427	3329	1530
c, Capacity [veh/h]	2019	901	150	2480	607	279
d1, Uniform Delay [s]	7.48	8.72	38.05	3.39	33.38	30.06
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.06	0.85	9.04	0.04	2.68	0.59
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.30	0.79	0.06	0.81	0.30
d, Delay for Lane Group [s/veh]	7.54	9.57	47.10	3.44	36.06	30.65
Lane Group LOS	A	A	D	A	D	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.46	2.29	2.71	0.25	4.92	1.47
50th-Percentile Queue Length [ft/ln]	11.61	57.15	67.69	6.32	122.90	36.70
95th-Percentile Queue Length [veh/ln]	0.84	4.11	4.87	0.46	8.55	2.64
95th-Percentile Queue Length [ft/ln]	20.90	102.87	121.84	11.38	213.80	66.07

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	7.54	9.57	47.10	3.44	36.06	30.65
Movement LOS	A	A	D	A	D	C
d_A, Approach Delay [s/veh]	8.89		23.27		35.28	
Approach LOS	A		C		D	
d_I, Intersection Delay [s/veh]	24.16					
Intersection LOS	C					
Intersection V/C	0.403					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	32.23
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.402
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	894	1223	588
d_b, Bicycle Delay [s]	13.01	6.42	21.19
I_b,int, Bicycle LOS Score for Intersection	1.893	1.776	1.560
Bicycle LOS	A	A	A

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: Cajun Blvd (NS) at Kendall Dr (EW)

Control Type:	Two-way stop	Delay (sec / veh):	14.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.026

Intersection Setup

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	1	0
Entry Pocket Length [ft]	100.00	100.00	215.00	100.00	92.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Base Volume Input [veh/h]	79	6	204	121	10	148
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	79	6	204	121	10	148
Peak Hour Factor	0.9828	0.9828	0.9828	0.9828	0.9828	0.9828
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	2	52	31	3	38
Total Analysis Volume [veh/h]	80	6	208	123	10	151
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.14	0.00	0.03	0.15
d_M, Delay for Movement [s/veh]	0.00	0.00	7.74	0.00	14.43	9.33
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.47	0.00	0.08	0.54
95th-Percentile Queue Length [ft/ln]	0.00	0.00	11.83	0.00	1.96	13.56
d_A, Approach Delay [s/veh]	0.00		4.86		9.65	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.47					
Intersection LOS	B					

PM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Devore Rd (NS) at I-215 NB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.265

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	100.00	100.00	180.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Base Volume Input [veh/h]	171	162	0	0	139	72	0	0	0	121	7	123
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	171	162	0	0	139	72	0	0	0	121	7	123
Peak Hour Factor	0.9238	0.9238	0.9500	0.9500	0.9238	0.9238	0.9500	0.9500	0.9500	0.9238	0.9238	0.9238
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	46	44	0	0	38	19	0	0	0	33	2	33
Total Analysis Volume [veh/h]	185	175	0	0	150	78	0	0	0	131	8	133
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	698	774	752	882		578	713
Degree of Utilization, x	0.26	0.23	0.20	0.09		0.24	0.19

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.06	0.87	0.74	0.29		0.93	0.68
95th-Percentile Queue Length [ft]	26.58	21.68	18.49	7.26		23.32	17.06
Approach Delay [s/veh]	9.22		8.16		0.00	9.92	
Approach LOS	A		A		A	A	
Intersection Delay [s/veh]	9.16						
Intersection LOS	A						

Intersection Level Of Service Report
Intersection 2: Devore Rd (NS) at I-215 SB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.573

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Base Volume Input [veh/h]	0	180	70	78	172	0	113	8	407	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	180	70	78	172	0	113	8	407	0	0	0
Peak Hour Factor	0.9500	0.9729	0.9729	0.9729	0.9729	0.9500	0.9729	0.9729	0.9729	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	46	18	20	44	0	29	2	105	0	0	0
Total Analysis Volume [veh/h]	0	185	72	80	177	0	116	8	418	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	821	697	772	590	730	
Degree of Utilization, x	0.31	0.11	0.23	0.21	0.57	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.34	0.39	0.88	0.79	3.68	
95th-Percentile Queue Length [ft]	33.52	9.68	22.06	19.72	92.03	
Approach Delay [s/veh]	9.37	8.68		13.22		0.00
Approach LOS	A	A		B		A
Intersection Delay [s/veh]	11.18					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	15.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.593

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	133	53	103	232	51	227	34	31	15	104	163	213
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	133	53	103	232	51	227	34	31	15	104	163	213
Peak Hour Factor	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	14	28	62	14	61	9	8	4	28	44	57
Total Analysis Volume [veh/h]	143	57	111	250	55	244	37	33	16	112	176	229
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	525	502	539	600	417	443	469	453	484	535
Degree of Utilization, x	0.59	0.50	0.10	0.41	0.09	0.06	0.05	0.25	0.36	0.43

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.82	2.74	0.34	1.97	0.29	0.18	0.17	0.96	1.64	2.13
95th-Percentile Queue Length [ft]	95.61	68.39	8.47	49.14	7.25	4.38	4.13	24.08	41.11	53.20
Approach Delay [s/veh]	19.38	14.31			11.54			14.11		
Approach LOS	C	B			B			B		
Intersection Delay [s/veh]	15.15									
Intersection LOS	C									

Intersection Level Of Service Report**Intersection 4: Glen Helen Pkwy (NS) at Glen Helen Spur (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Base Volume Input [veh/h]	289	0	0	169	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	289	0	0	169	0	0
Peak Hour Factor	0.9292	0.9292	0.9292	0.9292	0.9292	0.9292
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	78	0	0	45	0	0
Total Analysis Volume [veh/h]	311	0	0	182	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.86	0.00	11.68	9.91
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.79	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report**Intersection 5: Glen Helen Pkwy (NS) at Glen Helen Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	10.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Base Volume Input [veh/h]	6	157	2	0	175	8	4	0	15	0	0	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	157	2	0	175	8	4	0	15	0	0	1
Peak Hour Factor	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	43	1	0	48	2	1	0	4	0	0	0
Total Analysis Volume [veh/h]	7	174	2	0	194	9	4	0	17	0	0	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.62	0.00	0.00	7.55	0.00	0.00	10.74	11.62	8.90	10.67	11.61	8.75
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.06	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.38	0.00	0.00	0.00	0.00	0.00	0.48	0.48	1.38	0.08	0.08	0.08
d_A, Approach Delay [s/veh]	0.29			0.00			9.25			8.75		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.63											
Intersection LOS	B											

Intersection Level Of Service Report**Intersection 6: Glen Helen Pkwy (NS) at Clearwater Pkwy (EW)**

Control Type:	Signalized	Delay (sec / veh):	19.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.308

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	1	0
Entry Pocket Length [ft]	100.00	126.00	218.00	100.00	122.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	3280.00	0.00	0.00
Speed [mph]	40.00		40.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Base Volume Input [veh/h]	214	234	57	116	298	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	214	234	57	116	298	59
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	58	64	16	32	81	16
Total Analysis Volume [veh/h]	233	255	62	126	325	64
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	2.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	42	0	14	56	29	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	31	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	58	58	4	66	11	11
g / C, Green / Cycle	0.68	0.68	0.05	0.78	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.07	0.17	0.04	0.04	0.10	0.04
s, saturation flow rate [veh/h]	3427	1530	1714	3427	3329	1530
c, Capacity [veh/h]	2338	1044	81	2660	432	199
d1, Uniform Delay [s]	4.61	5.16	40.07	2.21	35.69	33.61
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.09	0.56	14.07	0.03	2.67	0.93
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.24	0.77	0.05	0.75	0.32
d, Delay for Lane Group [s/veh]	4.70	5.72	54.15	2.25	38.36	34.54
Lane Group LOS	A	A	D	A	D	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.55	1.43	1.55	0.14	3.30	1.22
50th-Percentile Queue Length [ft/ln]	13.66	35.79	38.74	3.49	82.57	30.42
95th-Percentile Queue Length [veh/ln]	0.98	2.58	2.79	0.25	5.95	2.19
95th-Percentile Queue Length [ft/ln]	24.60	64.43	69.73	6.28	148.63	54.76

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.70	5.72	54.15	2.25	38.36	34.54
Movement LOS	A	A	D	A	D	C
d_A, Approach Delay [s/veh]	5.23		19.36		37.73	
Approach LOS	A		B		D	
d_I, Intersection Delay [s/veh]	19.60					
Intersection LOS	B					
Intersection V/C	0.308					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	32.23
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.328
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	894	1223	588
d_b, Bicycle Delay [s]	13.01	6.42	21.19
I_b,int, Bicycle LOS Score for Intersection	1.962	1.715	1.560
Bicycle LOS	A	A	A

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: Cajun Blvd (NS) at Kendall Dr (EW)

Control Type:	Two-way stop	Delay (sec / veh):	18.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.046

Intersection Setup

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	1	0
Entry Pocket Length [ft]	100.00	100.00	215.00	100.00	92.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Base Volume Input [veh/h]	241	6	182	159	12	191
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	241	6	182	159	12	191
Peak Hour Factor	0.9034	0.9034	0.9034	0.9034	0.9034	0.9034
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	67	2	50	44	3	53
Total Analysis Volume [veh/h]	267	7	201	176	13	211
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.15	0.00	0.05	0.27
d_M, Delay for Movement [s/veh]	0.00	0.00	8.27	0.00	18.35	11.40
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.55	0.00	0.14	1.11
95th-Percentile Queue Length [ft/ln]	0.00	0.00	13.65	0.00	3.60	27.72
d_A, Approach Delay [s/veh]	0.00		4.41		11.80	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.92					
Intersection LOS	C					

EXISTING PLUS PROJECT

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Devore Rd (NS) at I-215 NB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	8.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.259

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	100.00	100.00	180.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Base Volume Input [veh/h]	137	91	0	0	175	80	0	0	0	49	0	122
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	28	3	0	0	2	0	0	0	0	28	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	165	94	0	0	177	80	0	0	0	77	0	122
Peak Hour Factor	0.9151	0.9151	0.9500	0.9500	0.9151	0.9151	0.9500	0.9500	0.9500	0.9151	0.9151	0.9151
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	26	0	0	48	22	0	0	0	21	0	33
Total Analysis Volume [veh/h]	180	103	0	0	193	87	0	0	0	84	0	133
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	694	768	763	896		580	718
Degree of Utilization, x	0.26	0.13	0.25	0.10		0.14	0.19

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.03	0.46	1.00	0.32		0.50	0.68
95th-Percentile Queue Length [ft]	25.86	11.56	25.04	8.04		12.60	16.88
Approach Delay [s/veh]	9.12		8.43		0.00	9.28	
Approach LOS	A		A		A	A	
Intersection Delay [s/veh]	8.92						
Intersection LOS	A						

Intersection Level Of Service Report
Intersection 2: Devore Rd (NS) at I-215 SB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.561

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Base Volume Input [veh/h]	0	203	190	85	120	0	31	3	170	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	31	27	0	30	0	0	0	28	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	234	217	85	150	0	31	3	198	0	0	0
Peak Hour Factor	0.9500	0.9512	0.9512	0.9512	0.9512	0.9500	0.9512	0.9512	0.9512	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	62	57	22	39	0	8	1	52	0	0	0
Total Analysis Volume [veh/h]	0	246	228	89	158	0	33	3	208	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	845	680	750	553	673	
Degree of Utilization, x	0.56	0.13	0.21	0.07	0.31	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.56	0.45	0.79	0.21	1.31	
95th-Percentile Queue Length [ft]	88.97	11.24	19.78	5.21	32.79	
Approach Delay [s/veh]	12.56	8.78		10.31		0.00
Approach LOS	B	A		B		A
Intersection Delay [s/veh]	11.02					
Intersection LOS	B					

Intersection Level Of Service Report**Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)**

Control Type:	All-way stop	Delay (sec / veh):	16.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.575

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	8	63	103	205	70	13	123	75	32	108	9	204
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	54	46	51	7	0	0	1	0	0	1	4
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	117	149	256	77	13	123	76	32	108	10	208
Peak Hour Factor	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	32	40	69	21	4	33	21	9	29	3	56
Total Analysis Volume [veh/h]	9	127	162	278	84	14	133	82	35	117	11	226
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	519	489	524	583	427	454	498	441	470	518
Degree of Utilization, x	0.57	0.57	0.16	0.02	0.31	0.18	0.07	0.27	0.02	0.44

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.59	3.49	0.57	0.07	1.31	0.65	0.23	1.06	0.07	2.19
95th-Percentile Queue Length [ft]	89.71	87.14	14.16	1.84	32.85	16.32	5.64	26.39	1.79	54.72
Approach Delay [s/veh]	18.91	17.03			13.47			14.40		
Approach LOS	C	C			B			B		
Intersection Delay [s/veh]	16.04									
Intersection LOS	C									

Intersection Level Of Service Report**Intersection 4: Glen Helen Pkwy (NS) at Glen Helen Spur (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	13.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.086

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Base Volume Input [veh/h]	171	0	0	210	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	23	4	7	0	27	77
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	12	18	0	13	17
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	194	16	25	210	40	94
Peak Hour Factor	0.9022	0.9022	0.9022	0.9022	0.9022	0.9022
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	4	7	58	11	26
Total Analysis Volume [veh/h]	215	18	28	233	44	104
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.09	0.13
d_M, Delay for Movement [s/veh]	0.00	0.00	7.71	0.00	13.42	10.78
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.05	0.80	0.80
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.18	1.18	20.02	20.02
d_A, Approach Delay [s/veh]	0.00		0.83		11.56	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.00					
Intersection LOS	B					

Intersection Level Of Service Report**Intersection 5: Glen Helen Pkwy (NS) at Glen Helen Rd (EW)**

Control Type: Two-way stop
 Analysis Method: HCM 7th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 11.7
 Level Of Service: B
 Volume to Capacity (v/c): 0.002

Intersection Setup

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Base Volume Input [veh/h]	2	191	2	3	207	6	1	0	2	2	0	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	27	0	0	27	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	218	2	3	234	6	1	0	2	2	0	4
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	61	1	1	66	2	0	0	1	1	0	1
Total Analysis Volume [veh/h]	2	244	2	3	262	7	1	0	2	2	0	4
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.76	0.00	0.00	7.71	0.00	0.00	11.71	12.83	9.03	11.59	12.87	8.98
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02
95th-Percentile Queue Length [ft/ln]	0.12	0.00	0.00	0.17	0.00	0.00	0.14	0.14	0.17	0.61	0.61	0.61
d_A, Approach Delay [s/veh]	0.06			0.09			9.92			9.85		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.24											
Intersection LOS	B											

Intersection Level Of Service Report**Intersection 6: Glen Helen Pkwy (NS) at Clearwater Pkwy (EW)**

Control Type:	Signalized	Delay (sec / veh):	23.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.405

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	1	0
Entry Pocket Length [ft]	100.00	126.00	218.00	100.00	122.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	3280.00	0.00	0.00
Speed [mph]	40.00		40.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Base Volume Input [veh/h]	112	222	98	118	408	69
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	25	0	3	24	0	2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	137	222	101	142	408	71
Peak Hour Factor	0.8268	0.8268	0.8268	0.8268	0.8268	0.8268
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	67	31	43	123	21
Total Analysis Volume [veh/h]	166	269	122	172	493	86
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	2.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	42	0	14	56	29	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	31	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	50	50	8	62	15	15
g / C, Green / Cycle	0.59	0.59	0.09	0.72	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.05	0.18	0.07	0.05	0.15	0.06
s, saturation flow rate [veh/h]	3427	1530	1714	3427	3329	1530
c, Capacity [veh/h]	2012	898	153	2480	607	279
d1, Uniform Delay [s]	7.63	8.80	37.96	3.42	33.37	30.12
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.08	0.85	8.96	0.05	2.67	0.62
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.30	0.80	0.07	0.81	0.31
d, Delay for Lane Group [s/veh]	7.71	9.66	46.92	3.48	36.04	30.74
Lane Group LOS	A	A	D	A	D	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.58	2.30	2.77	0.31	4.91	1.52
50th-Percentile Queue Length [ft/ln]	14.52	57.57	69.25	7.68	122.87	38.12
95th-Percentile Queue Length [veh/ln]	1.05	4.14	4.99	0.55	8.55	2.74
95th-Percentile Queue Length [ft/ln]	26.14	103.62	124.64	13.83	213.77	68.62

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	7.71	9.66	46.92	3.48	36.04	30.74
Movement LOS	A	A	D	A	D	C
d_A, Approach Delay [s/veh]	8.91		21.51		35.26	
Approach LOS	A		C		D	
d_I, Intersection Delay [s/veh]	23.40					
Intersection LOS	C					
Intersection V/C	0.405					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	32.23
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.403
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	894	1223	588
d_b, Bicycle Delay [s]	13.01	6.42	21.19
I_b,int, Bicycle LOS Score for Intersection	1.918	1.802	1.560
Bicycle LOS	A	A	A

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: Cajun Blvd (NS) at Kendall Dr (EW)

Control Type:	Two-way stop	Delay (sec / veh):	15.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.027

Intersection Setup

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	1	0
Entry Pocket Length [ft]	100.00	100.00	215.00	100.00	92.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Base Volume Input [veh/h]	79	6	204	121	10	148
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	6	12	0	6
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	6	210	133	10	154
Peak Hour Factor	0.9828	0.9828	0.9828	0.9828	0.9828	0.9828
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	2	53	34	3	39
Total Analysis Volume [veh/h]	92	6	214	135	10	157
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.14	0.00	0.03	0.16
d_M, Delay for Movement [s/veh]	0.00	0.00	7.78	0.00	14.97	9.44
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.49	0.00	0.08	0.58
95th-Percentile Queue Length [ft/ln]	0.00	0.00	12.37	0.00	2.07	14.45
d_A, Approach Delay [s/veh]	0.00		4.77		9.77	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.37					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 8: Project West Dwy (NS) at Cajun Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	15.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	Project East Dwy		Cajun Blvd		Cajun Blvd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	3280.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project East Dwy		Cajun Blvd		Cajun Blvd	
Base Volume Input [veh/h]	0	0	383	0	0	321
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	6	24	70	27	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	3	12	3	2	13	3
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	18	410	72	40	325
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	5	111	20	11	88
Total Analysis Volume [veh/h]	4	20	446	78	43	353
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.03	0.00	0.00	0.04	0.00
d_M, Delay for Movement [s/veh]	15.88	10.08	0.00	0.00	8.56	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.12	0.12	0.00	0.00	0.13	0.00
95th-Percentile Queue Length [ft/ln]	3.02	3.02	0.00	0.00	3.19	0.00
d_A, Approach Delay [s/veh]	11.05		0.00		0.93	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.67					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 9: Project East Dwy (NS) Cajun Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.027

Intersection Setup

Name	Project West Dwy		Cajun Blvd		Cajun Blvd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project West Dwy		Cajun Blvd		Cajun Blvd	
Base Volume Input [veh/h]	0	0	0	0	0	321
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	1	93	5	1	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	13	3	3	12	3	3
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	4	96	17	4	325
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	1	26	5	1	88
Total Analysis Volume [veh/h]	18	4	104	18	4	353
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.51	8.77	0.00	0.00	7.44	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.10	0.10	0.00	0.00	0.01	0.00
95th-Percentile Queue Length [ft/ln]	2.38	2.38	0.00	0.00	0.20	0.00
d_A, Approach Delay [s/veh]	10.19		0.00		0.08	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.51					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 10: Glen Helen Spur (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.146

Intersection Setup

Name	Glen Helen Spur		Glen Helen Spur		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Spur		Glen Helen Spur		Project Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	11	0	0	104	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	31	0	0	30	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	42	0	0	134	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	11	0	0	36	0
Total Analysis Volume [veh/h]	0	46	0	0	146	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.15	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.29	0.00	9.22	9.01
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.51	0.51
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	12.78	12.78
d_A, Approach Delay [s/veh]	0.00		3.64		9.22	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.01					
Intersection LOS	A					

PM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Devore Rd (NS) at I-215 NB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.309

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	100.00	100.00	180.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Base Volume Input [veh/h]	171	162	0	0	139	72	0	0	0	121	7	123
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	29	2	0	0	3	0	0	0	0	32	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	200	164	0	0	142	72	0	0	0	153	7	123
Peak Hour Factor	0.9238	0.9238	0.9500	0.9500	0.9238	0.9238	0.9500	0.9500	0.9500	0.9238	0.9238	0.9238
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	44	0	0	38	19	0	0	0	41	2	33
Total Analysis Volume [veh/h]	216	178	0	0	154	78	0	0	0	166	8	133
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	698	773	747	875		571	701
Degree of Utilization, x	0.31	0.23	0.21	0.09		0.30	0.19

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.32	0.89	0.77	0.29		1.28	0.70
95th-Percentile Queue Length [ft]	32.89	22.18	19.26	7.32		32.07	17.39
Approach Delay [s/veh]	9.52		8.24		0.00	10.57	
Approach LOS	A		A		A	B	
Intersection Delay [s/veh]	9.55						
Intersection LOS	A						

Intersection Level Of Service Report
Intersection 2: Devore Rd (NS) at I-215 SB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	12.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.644

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Base Volume Input [veh/h]	0	180	70	78	172	0	113	8	407	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	31	30	0	35	0	0	0	32	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	211	100	78	207	0	113	8	439	0	0	0
Peak Hour Factor	0.9500	0.9729	0.9729	0.9729	0.9729	0.9500	0.9729	0.9729	0.9729	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	54	26	20	53	0	29	2	113	0	0	0
Total Analysis Volume [veh/h]	0	217	103	80	213	0	116	8	451	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	819	692	765	570	700	
Degree of Utilization, x	0.39	0.12	0.28	0.22	0.64	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.87	0.39	1.14	0.82	4.72	
95th-Percentile Queue Length [ft]	46.66	9.77	28.47	20.55	117.99	
Approach Delay [s/veh]	10.18	9.04		15.40		0.00
Approach LOS	B	A		C		A
Intersection Delay [s/veh]	12.43					
Intersection LOS	B					

Intersection Level Of Service Report**Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)**

Control Type:	All-way stop	Delay (sec / veh):	22.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.842

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	133	53	103	232	51	227	34	31	15	104	163	213
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	55	52	59	8	0	0	1	0	0	1	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	133	108	155	291	59	227	34	32	15	104	164	219
Peak Hour Factor	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	29	42	78	16	61	9	9	4	28	44	59
Total Analysis Volume [veh/h]	143	116	167	313	64	244	37	34	16	112	177	236
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	506	470	502	556	382	403	424	413	439	481
Degree of Utilization, x	0.84	0.67	0.13	0.44	0.10	0.06	0.06	0.27	0.40	0.49

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	8.60	4.81	0.43	2.22	0.32	0.20	0.19	1.09	1.92	2.66
95th-Percentile Queue Length [ft]	215.10	120.17	10.86	55.48	7.98	4.94	4.68	27.14	47.94	66.56
Approach Delay [s/veh]	37.56	18.95			12.47			16.37		
Approach LOS	E	C			B			C		
Intersection Delay [s/veh]	22.57									
Intersection LOS	C									

Intersection Level Of Service Report**Intersection 4: Glen Helen Pkwy (NS) at Glen Helen Spur (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	14.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.096

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Base Volume Input [veh/h]	289	0	0	169	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	27	6	8	0	28	80
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	13	20	0	13	19
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	316	19	28	169	41	99
Peak Hour Factor	0.9292	0.9292	0.9292	0.9292	0.9292	0.9292
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	85	5	8	45	11	27
Total Analysis Volume [veh/h]	340	20	30	182	44	107
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.10	0.15
d_M, Delay for Movement [s/veh]	0.00	0.00	8.01	0.00	14.80	12.12
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.05	0.98	0.98
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.27	1.27	24.46	24.46
d_A, Approach Delay [s/veh]	0.00		1.13		12.90	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.03					
Intersection LOS	B					

Intersection Level Of Service Report**Intersection 5: Glen Helen Pkwy (NS) at Glen Helen Rd (EW)**

Control Type:
Analysis Method:
Analysis Period:

Two-way stop
HCM 7th Edition
15 minutes

Delay (sec / veh):
Level Of Service:
Volume to Capacity (v/c):

11.2
B
0.007

Intersection Setup

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Base Volume Input [veh/h]	6	157	2	0	175	8	4	0	15	0	0	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	33	0	0	28	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	190	2	0	203	8	4	0	15	0	0	1
Peak Hour Factor	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	53	1	0	56	2	1	0	4	0	0	0
Total Analysis Volume [veh/h]	7	210	2	0	225	9	4	0	17	0	0	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.69	0.00	0.00	7.63	0.00	0.00	11.22	12.22	8.99	11.17	12.21	8.85
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.06	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.39	0.00	0.00	0.00	0.00	0.00	0.52	0.52	1.41	0.08	0.08	0.08
d_A, Approach Delay [s/veh]	0.25			0.00			9.41			8.85		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.55											
Intersection LOS	B											

Intersection Level Of Service Report**Intersection 6: Glen Helen Pkwy (NS) at Clearwater Pkwy (EW)**

Control Type:	Signalized	Delay (sec / veh):	18.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.309

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	1	0
Entry Pocket Length [ft]	100.00	126.00	218.00	100.00	122.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	3280.00	0.00	0.00
Speed [mph]	40.00		40.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Base Volume Input [veh/h]	214	234	57	116	298	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	30	0	2	26	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	244	234	59	142	298	62
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	66	64	16	39	81	17
Total Analysis Volume [veh/h]	266	255	64	155	325	68
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	2.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	42	0	14	56	29	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	31	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	58	58	4	66	11	11
g / C, Green / Cycle	0.68	0.68	0.05	0.78	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.08	0.17	0.04	0.05	0.10	0.04
s, saturation flow rate [veh/h]	3427	1530	1714	3427	3329	1530
c, Capacity [veh/h]	2332	1041	83	2660	432	199
d1, Uniform Delay [s]	4.71	5.21	39.99	2.23	35.68	33.70
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.10	0.56	13.68	0.04	2.66	1.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.11	0.24	0.77	0.06	0.75	0.34
d, Delay for Lane Group [s/veh]	4.81	5.77	53.68	2.28	38.34	34.71
Lane Group LOS	A	A	D	A	D	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.64	1.44	1.59	0.17	3.30	1.30
50th-Percentile Queue Length [ft/ln]	15.91	36.10	39.74	4.33	82.54	32.44
95th-Percentile Queue Length [veh/ln]	1.15	2.60	2.86	0.31	5.94	2.34
95th-Percentile Queue Length [ft/ln]	28.64	64.98	71.54	7.80	148.58	58.40

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.81	5.77	53.68	2.28	38.34	34.71
Movement LOS	A	A	D	A	D	C
d_A, Approach Delay [s/veh]	5.28		17.30		37.71	
Approach LOS	A		B		D	
d_I, Intersection Delay [s/veh]	18.85					
Intersection LOS	B					
Intersection V/C	0.309					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	32.23
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.330
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	894	1223	588
d_b, Bicycle Delay [s]	13.01	6.42	21.19
I_b,int, Bicycle LOS Score for Intersection	1.989	1.740	1.560
Bicycle LOS	A	A	A

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: Cajun Blvd (NS) at Kendall Dr (EW)

Control Type:	Two-way stop	Delay (sec / veh):	19.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.049

Intersection Setup

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	1	0
Entry Pocket Length [ft]	100.00	100.00	215.00	100.00	92.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Base Volume Input [veh/h]	241	6	182	159	12	191
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	14	0	6	12	0	6
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	255	6	188	171	12	197
Peak Hour Factor	0.9034	0.9034	0.9034	0.9034	0.9034	0.9034
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	71	2	52	47	3	55
Total Analysis Volume [veh/h]	282	7	208	189	13	218
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.16	0.00	0.05	0.29
d_M, Delay for Movement [s/veh]	0.00	0.00	8.34	0.00	19.31	11.65
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.58	0.00	0.15	1.19
95th-Percentile Queue Length [ft/ln]	0.00	0.00	14.43	0.00	3.86	29.74
d_A, Approach Delay [s/veh]	0.00		4.37		12.08	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.94					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 8: Project West Dwy (NS) at Cajun Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	17.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.014

Intersection Setup

Name	Project East Dwy		Cajun Blvd		Cajun Blvd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	3280.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project East Dwy		Cajun Blvd		Cajun Blvd	
Base Volume Input [veh/h]	0	0	366	0	0	480
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	4	26	82	33	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	3	13	3	4	13	3
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	17	395	86	46	484
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	5	107	23	13	132
Total Analysis Volume [veh/h]	4	18	429	93	50	526
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.02	0.00	0.00	0.05	0.01
d_M, Delay for Movement [s/veh]	17.49	10.08	0.00	0.00	8.58	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.12	0.12	0.00	0.00	0.15	0.00
95th-Percentile Queue Length [ft/ln]	2.94	2.94	0.00	0.00	3.73	0.00
d_A, Approach Delay [s/veh]	11.43		0.00		0.75	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.61					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 9: Project East Dwy (NS) Cajun Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.036

Intersection Setup

Name	Project West Dwy		Cajun Blvd		Cajun Blvd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project West Dwy		Cajun Blvd		Cajun Blvd	
Base Volume Input [veh/h]	0	0	0	0	0	480
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	1	107	5	1	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	13	3	3	13	4	3
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	4	110	18	5	484
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	1	30	5	1	132
Total Analysis Volume [veh/h]	21	4	120	20	5	526
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	11.47	8.90	0.00	0.00	7.48	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.13	0.13	0.00	0.00	0.01	0.00
95th-Percentile Queue Length [ft/ln]	3.15	3.15	0.00	0.00	0.26	0.00
d_A, Approach Delay [s/veh]	11.05		0.00		0.07	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.45					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 10: Glen Helen Spur (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.3
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.154

Intersection Setup

Name	Glen Helen Spur		Glen Helen Spur		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Spur		Glen Helen Spur		Project Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	14	0	0	108	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	32	0	0	33	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	46	0	0	141	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	13	0	0	38	0
Total Analysis Volume [veh/h]	0	50	0	0	153	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.15	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.29	0.00	9.27	9.06
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.54	0.54
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	13.54	13.54
d_A, Approach Delay [s/veh]	0.00		3.65		9.27	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.99					
Intersection LOS	A					

OPENING YEAR (2025) WITHOUT PROJECT

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Devore Rd (NS) at I-215 NB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.358

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	100.00	100.00	180.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Base Volume Input [veh/h]	137	91	0	0	175	80	0	0	0	49	0	122
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0000	1.0000	1.0404	1.0404	1.0000	1.0000	1.0000	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	82	49	0	0	53	0	0	0	0	84	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	225	144	0	0	235	83	0	0	0	135	0	127
Peak Hour Factor	0.9151	0.9151	0.9500	0.9500	0.9151	0.9151	0.9500	0.9500	0.9500	0.9151	0.9151	0.9151
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	39	0	0	64	23	0	0	0	37	0	35
Total Analysis Volume [veh/h]	246	157	0	0	257	91	0	0	0	148	0	139
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	686	759	745	872		547	668
Degree of Utilization, x	0.36	0.21	0.34	0.10		0.27	0.21

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.63	0.77	1.54	0.35		1.09	0.78
95th-Percentile Queue Length [ft]	40.70	19.37	38.50	8.71		27.27	19.49
Approach Delay [s/veh]	10.00		9.33		0.00	10.65	
Approach LOS	B		A		A	B	
Intersection Delay [s/veh]	9.96						
Intersection LOS	A						

Intersection Level Of Service Report
Intersection 2: Devore Rd (NS) at I-215 SB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	17.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.806

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Base Volume Input [veh/h]	0	203	190	85	120	0	31	3	170	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0404	1.0404	1.0404	1.0404	1.0000	1.0404	1.0404	1.0404	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	131	87	0	137	0	0	0	77	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	342	285	88	262	0	32	3	254	0	0	0
Peak Hour Factor	0.9500	0.9512	0.9512	0.9512	0.9512	0.9500	0.9512	0.9512	0.9512	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	90	75	23	69	0	8	1	67	0	0	0
Total Analysis Volume [veh/h]	0	360	300	93	275	0	34	3	267	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	820	664	731	504	602	
Degree of Utilization, x	0.81	0.14	0.38	0.07	0.44	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	8.66	0.49	1.76	0.24	2.27	
95th-Percentile Queue Length [ft]	216.51	12.15	43.88	5.93	56.72	
Approach Delay [s/veh]	22.86	10.17		13.00		0.00
Approach LOS	C	B		B		A
Intersection Delay [s/veh]	17.11					
Intersection LOS	C					

Intersection Level Of Service Report**Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)**

Control Type:	All-way stop	Delay (sec / veh):	25.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.839

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	8	63	103	205	70	13	123	75	32	108	9	204
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	152	23	54	153	1	9	2	0	29	10	58
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	218	130	267	226	15	137	80	33	141	19	270
Peak Hour Factor	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	59	35	72	61	4	37	22	9	38	5	73
Total Analysis Volume [veh/h]	10	236	141	290	245	16	149	87	36	153	21	293
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	462	433	461	505	363	382	414	383	405	441
Degree of Utilization, x	0.84	0.67	0.53	0.03	0.41	0.23	0.09	0.40	0.05	0.67

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	8.26	4.79	3.06	0.10	1.95	0.86	0.28	1.87	0.16	4.74
95th-Percentile Queue Length [ft]	206.60	119.83	76.60	2.45	48.76	21.59	7.10	46.86	4.09	118.60
Approach Delay [s/veh]	39.81	22.60			16.99			22.62		
Approach LOS	E	C			C			C		
Intersection Delay [s/veh]	25.67									
Intersection LOS	D									

Intersection Level Of Service Report**Intersection 4: Glen Helen Pkwy (NS) at Glen Helen Spur (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Base Volume Input [veh/h]	171	0	0	210	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	176	0	0	182	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	354	0	0	400	0	0
Peak Hour Factor	0.9022	0.9022	0.9022	0.9022	0.9022	0.9022
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	98	0	0	111	0	0
Total Analysis Volume [veh/h]	392	0	0	443	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.06	0.00	15.58	10.45
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		13.01	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report**Intersection 5: Glen Helen Pkwy (NS) at Glen Helen Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	17.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.137

Intersection Setup

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Base Volume Input [veh/h]	2	191	2	3	207	6	1	0	2	2	0	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	22	136	0	0	132	50	40	0	17	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	335	2	3	347	56	41	0	19	2	0	4
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	94	1	1	97	16	11	0	5	1	0	1
Total Analysis Volume [veh/h]	27	375	2	3	389	63	46	0	21	2	0	4
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.03	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	8.30	0.00	0.00	8.03	0.00	0.00	17.37	19.14	9.72	15.32	18.03	9.41
Movement LOS	A	A	A	A	A	A	C	C	A	C	C	A
95th-Percentile Queue Length [veh/ln]	0.07	0.00	0.00	0.01	0.00	0.00	0.47	0.47	0.08	0.03	0.03	0.03
95th-Percentile Queue Length [ft/ln]	1.85	0.00	0.00	0.19	0.00	0.00	11.71	11.71	2.06	0.80	0.80	0.80
d_A, Approach Delay [s/veh]	0.55			0.05			14.97			11.38		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	1.42											
Intersection LOS	C											

Intersection Level Of Service Report**Intersection 6: Glen Helen Pkwy (NS) at Clearwater Pkwy (EW)**

Control Type:	Signalized	Delay (sec / veh):	24.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.456

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	1	0
Entry Pocket Length [ft]	100.00	126.00	218.00	100.00	122.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	3280.00	0.00	0.00
Speed [mph]	40.00		40.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Base Volume Input [veh/h]	112	222	98	118	408	69
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	22	22	18	17	63	37
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	134	244	116	135	471	106
Peak Hour Factor	0.8268	0.8268	0.8268	0.8268	0.8268	0.8268
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	74	35	41	142	32
Total Analysis Volume [veh/h]	162	295	140	163	570	128
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	2.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	42	0	14	56	29	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	31	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	47	47	9	59	18	18
g / C, Green / Cycle	0.55	0.55	0.10	0.70	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.05	0.19	0.08	0.05	0.17	0.08
s, saturation flow rate [veh/h]	3427	1530	1714	3427	3329	1530
c, Capacity [veh/h]	1890	844	173	2397	687	316
d1, Uniform Delay [s]	8.98	10.60	37.43	4.03	32.31	29.23
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.09	1.14	8.64	0.05	2.65	0.84
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.35	0.81	0.07	0.83	0.41
d, Delay for Lane Group [s/veh]	9.07	11.74	46.07	4.09	34.97	30.06
Lane Group LOS	A	B	D	A	C	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.64	2.91	3.15	0.34	5.63	2.26
50th-Percentile Queue Length [ft/ln]	15.98	72.86	78.63	8.49	140.78	56.45
95th-Percentile Queue Length [veh/ln]	1.15	5.25	5.66	0.61	9.52	4.06
95th-Percentile Queue Length [ft/ln]	28.76	131.14	141.54	15.28	238.07	101.60

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	9.07	11.74	46.07	4.09	34.97	30.06
Movement LOS	A	B	D	A	C	C
d_A, Approach Delay [s/veh]	10.80		23.49		34.07	
Approach LOS	B		C		C	
d_I, Intersection Delay [s/veh]	24.57					
Intersection LOS	C					
Intersection V/C	0.456					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	32.23
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.450
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	894	1223	588
d_b, Bicycle Delay [s]	13.01	6.42	21.19
I_b,int, Bicycle LOS Score for Intersection	1.937	1.810	1.560
Bicycle LOS	A	A	A

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: Cajun Blvd (NS) at Kendall Dr (EW)

Control Type:	Two-way stop	Delay (sec / veh):	18.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.036

Intersection Setup

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	1	0
Entry Pocket Length [ft]	100.00	100.00	215.00	100.00	92.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Base Volume Input [veh/h]	79	6	204	121	10	148
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	80	0	48	34	0	14
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	159	6	252	155	10	162
Peak Hour Factor	0.9828	0.9828	0.9828	0.9828	0.9828	0.9828
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	2	64	39	3	41
Total Analysis Volume [veh/h]	162	6	256	158	10	165
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.18	0.00	0.04	0.19
d_M, Delay for Movement [s/veh]	0.00	0.00	8.09	0.00	18.38	10.00
Movement LOS	A	A	A	A	C	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.66	0.00	0.11	0.68
95th-Percentile Queue Length [ft/ln]	0.00	0.00	16.39	0.00	2.78	17.06
d_A, Approach Delay [s/veh]	0.00		5.00		10.48	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.16					
Intersection LOS	C					

PM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Devore Rd (NS) at I-215 NB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.467

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	100.00	100.00	180.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Base Volume Input [veh/h]	171	162	0	0	139	72	0	0	0	121	7	123
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0000	1.0000	1.0404	1.0404	1.0000	1.0000	1.0000	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	74	50	0	0	54	0	0	0	0	99	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	252	219	0	0	199	75	0	0	0	225	7	128
Peak Hour Factor	0.9238	0.9238	0.9500	0.9500	0.9238	0.9238	0.9500	0.9500	0.9500	0.9238	0.9238	0.9238
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	68	59	0	0	54	20	0	0	0	61	2	35
Total Analysis Volume [veh/h]	273	237	0	0	215	81	0	0	0	244	8	139
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	691	765	730	851		540	656
Degree of Utilization, x	0.40	0.31	0.29	0.10		0.47	0.21

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.89	1.32	1.23	0.31		2.46	0.80
95th-Percentile Queue Length [ft]	47.29	33.05	30.73	7.87		61.45	19.91
Approach Delay [s/veh]	10.46		9.05		0.00	13.14	
Approach LOS	B		A		A	B	
Intersection Delay [s/veh]	10.99						
Intersection LOS	B						

Intersection Level Of Service Report
Intersection 2: Devore Rd (NS) at I-215 SB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	19.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.850

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Base Volume Input [veh/h]	0	180	70	78	172	0	113	8	407	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0404	1.0404	1.0404	1.0404	1.0000	1.0404	1.0404	1.0404	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	124	82	0	153	0	0	0	95	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	311	155	81	332	0	118	8	518	0	0	0
Peak Hour Factor	0.9500	0.9729	0.9729	0.9729	0.9729	0.9500	0.9729	0.9729	0.9729	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	80	40	21	85	0	30	2	133	0	0	0
Total Analysis Volume [veh/h]	0	320	159	83	341	0	121	8	532	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	798	677	747	519	626	
Degree of Utilization, x	0.60	0.12	0.46	0.25	0.85	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.09	0.42	2.40	0.97	9.42	
95th-Percentile Queue Length [ft]	102.29	10.42	60.09	24.29	235.44	
Approach Delay [s/veh]	14.07	10.96		28.43		0.00
Approach LOS	B	B		D		A
Intersection Delay [s/veh]	19.29					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	39.8
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.088

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	133	53	103	232	51	227	34	31	15	104	163	213
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	141	26	80	156	6	13	14	7	16	25	55
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	148	196	133	321	209	242	48	46	23	124	195	277
Peak Hour Factor	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	53	36	86	56	65	13	12	6	33	52	75
Total Analysis Volume [veh/h]	159	211	143	346	225	261	52	50	25	134	210	298
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	513	444	471	516	372	388	406	395	417	452
Degree of Utilization, x	1.09	0.78	0.48	0.51	0.14	0.10	0.09	0.34	0.50	0.66

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	16.72	6.83	2.53	2.82	0.48	0.32	0.30	1.47	2.75	4.68
95th-Percentile Queue Length [ft]	417.96	170.65	63.37	70.54	12.06	7.95	7.58	36.82	68.82	117.09
Approach Delay [s/veh]	94.87	24.04			13.22			21.43		
Approach LOS	F	C			B			C		
Intersection Delay [s/veh]	39.79									
Intersection LOS	E									

Intersection Level Of Service Report**Intersection 4: Glen Helen Pkwy (NS) at Glen Helen Spur (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Base Volume Input [veh/h]	289	0	0	169	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	177	0	0	179	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	478	0	0	355	0	0
Peak Hour Factor	0.9292	0.9292	0.9292	0.9292	0.9292	0.9292
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	129	0	0	96	0	0
Total Analysis Volume [veh/h]	514	0	0	382	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.39	0.00	16.49	11.38
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		13.93	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report**Intersection 5: Glen Helen Pkwy (NS) at Glen Helen Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	15.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.139

Intersection Setup

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Base Volume Input [veh/h]	6	157	2	0	175	8	4	0	15	0	0	1
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	132	0	0	151	28	45	0	19	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	295	2	0	333	36	49	0	35	0	0	1
Peak Hour Factor	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	82	1	0	92	10	14	0	10	0	0	0
Total Analysis Volume [veh/h]	20	326	2	0	368	40	54	0	39	0	0	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.05	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.15	0.00	0.00	7.90	0.00	0.00	15.79	17.28	9.68	14.12	16.05	9.19
Movement LOS	A	A	A	A	A	A	C	C	A	B	C	A
95th-Percentile Queue Length [veh/ln]	0.05	0.00	0.00	0.00	0.00	0.00	0.48	0.48	0.15	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.31	0.00	0.00	0.00	0.00	0.00	12.01	12.01	3.79	0.09	0.09	0.09
d_A, Approach Delay [s/veh]	0.47			0.00			13.22			9.19		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	1.65											
Intersection LOS	C											

Intersection Level Of Service Report**Intersection 6: Glen Helen Pkwy (NS) at Clearwater Pkwy (EW)**

Control Type:	Signalized	Delay (sec / veh):	21.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.405

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	1	0
Entry Pocket Length [ft]	100.00	126.00	218.00	100.00	122.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	3280.00	0.00	0.00
Speed [mph]	40.00		40.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Base Volume Input [veh/h]	214	234	57	116	298	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	73	46	19	43	36
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	226	307	103	135	341	95
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	62	84	28	37	93	26
Total Analysis Volume [veh/h]	246	334	112	147	371	103
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	2.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	42	0	14	56	29	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	31	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	54	54	7	65	12	12
g / C, Green / Cycle	0.63	0.63	0.08	0.76	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.07	0.22	0.07	0.04	0.11	0.07
s, saturation flow rate [veh/h]	3427	1530	1714	3427	3329	1530
c, Capacity [veh/h]	2162	965	142	2607	484	222
d1, Uniform Delay [s]	6.25	7.42	38.27	2.55	34.97	33.31
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	0.98	9.27	0.04	2.58	1.50
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.11	0.35	0.79	0.06	0.77	0.46
d, Delay for Lane Group [s/veh]	6.36	8.40	47.54	2.59	37.55	34.81
Lane Group LOS	A	A	D	A	D	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.74	2.56	2.56	0.19	3.74	1.98
50th-Percentile Queue Length [ft/ln]	18.58	63.93	64.08	4.81	93.50	49.49
95th-Percentile Queue Length [veh/ln]	1.34	4.60	4.61	0.35	6.73	3.56
95th-Percentile Queue Length [ft/ln]	33.45	115.07	115.34	8.65	168.31	89.07

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	6.36	8.40	47.54	2.59	37.55	34.81
Movement LOS	A	A	D	A	D	C
d_A, Approach Delay [s/veh]	7.54		22.03		36.95	
Approach LOS	A		C		D	
d_I, Intersection Delay [s/veh]	21.01					
Intersection LOS	C					
Intersection V/C	0.405					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	32.23
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.389
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	894	1223	588
d_b, Bicycle Delay [s]	13.01	6.42	21.19
I_b,int, Bicycle LOS Score for Intersection	2.038	1.773	1.560
Bicycle LOS	B	A	A

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 7: Cajun Blvd (NS) at Kendall Dr (EW)

Control Type:	Two-way stop	Delay (sec / veh):	28.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.077

Intersection Setup

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	1	0
Entry Pocket Length [ft]	100.00	100.00	215.00	100.00	92.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Base Volume Input [veh/h]	241	6	182	159	12	191
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	70	0	79	42	0	21
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	311	6	261	201	12	212
Peak Hour Factor	0.9034	0.9034	0.9034	0.9034	0.9034	0.9034
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	86	2	72	56	3	59
Total Analysis Volume [veh/h]	344	7	289	222	13	235
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.24	0.00	0.08	0.34
d_M, Delay for Movement [s/veh]	0.00	0.00	8.87	0.00	28.02	12.72
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.92	0.00	0.25	1.48
95th-Percentile Queue Length [ft/ln]	0.00	0.00	23.12	0.00	6.16	36.95
d_A, Approach Delay [s/veh]	0.00		5.02		13.52	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.33					
Intersection LOS	D					

OPENING YEAR (2025) WITH PROJECT

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Devore Rd (NS) at I-215 NB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	10.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.402

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	100.00	100.00	180.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Base Volume Input [veh/h]	137	91	0	0	175	80	0	0	0	49	0	122
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0000	1.0000	1.0404	1.0404	1.0000	1.0000	1.0000	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	110	52	0	0	55	0	0	0	0	112	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	253	147	0	0	237	83	0	0	0	163	0	127
Peak Hour Factor	0.9151	0.9151	0.9500	0.9500	0.9151	0.9151	0.9500	0.9500	0.9500	0.9151	0.9151	0.9151
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	69	40	0	0	65	23	0	0	0	45	0	35
Total Analysis Volume [veh/h]	276	161	0	0	259	91	0	0	0	178	0	139
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	686	758	741	865		540	658
Degree of Utilization, x	0.40	0.21	0.35	0.11		0.33	0.21

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.95	0.80	1.57	0.35		1.43	0.79
95th-Percentile Queue Length [ft]	48.66	20.01	39.32	8.79		35.74	19.82
Approach Delay [s/veh]	10.44		9.43		0.00	11.30	
Approach LOS	B		A		A	B	
Intersection Delay [s/veh]	10.36						
Intersection LOS	B						

Intersection Level Of Service Report
Intersection 2: Devore Rd (NS) at I-215 SB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	21.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.885

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Base Volume Input [veh/h]	0	203	190	85	120	0	31	3	170	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0404	1.0404	1.0404	1.0404	1.0000	1.0404	1.0404	1.0404	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	162	114	0	167	0	0	0	105	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	373	312	88	292	0	32	3	282	0	0	0
Peak Hour Factor	0.9500	0.9512	0.9512	0.9512	0.9512	0.9500	0.9512	0.9512	0.9512	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	98	82	23	77	0	8	1	74	0	0	0
Total Analysis Volume [veh/h]	0	392	328	93	307	0	34	3	296	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	813	658	725	491	584	
Degree of Utilization, x	0.89	0.14	0.42	0.08	0.51	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	11.60	0.49	2.12	0.24	2.86	
95th-Percentile Queue Length [ft]	289.97	12.26	52.96	6.10	71.47	
Approach Delay [s/veh]	30.88	10.76		14.55		0.00
Approach LOS	D	B		B		A
Intersection Delay [s/veh]	21.60					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	45.0
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.103

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	8	63	103	205	70	13	123	75	32	108	9	204
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	206	69	105	160	1	9	3	0	29	11	62
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	272	176	318	233	15	137	81	33	141	20	274
Peak Hour Factor	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	74	48	86	63	4	37	22	9	38	5	74
Total Analysis Volume [veh/h]	10	295	191	345	253	16	149	88	36	153	22	297
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	496	434	460	502	367	386	414	385	405	438
Degree of Utilization, x	1.10	0.80	0.55	0.03	0.41	0.23	0.09	0.40	0.05	0.68

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	16.83	7.11	3.26	0.10	1.92	0.87	0.28	1.86	0.17	4.94
95th-Percentile Queue Length [ft]	420.74	177.65	81.48	2.47	47.90	21.70	7.10	46.45	4.29	123.49
Approach Delay [s/veh]	101.26	28.77			16.78			23.14		
Approach LOS	F	D			C			C		
Intersection Delay [s/veh]	44.95									
Intersection LOS	E									

Intersection Level Of Service Report**Intersection 4: Glen Helen Pkwy (NS) at Glen Helen Spur (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	20.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.151

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Base Volume Input [veh/h]	171	0	0	210	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	199	4	7	182	27	77
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	12	18	0	13	17
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	377	16	25	400	40	94
Peak Hour Factor	0.9022	0.9022	0.9022	0.9022	0.9022	0.9022
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	104	4	7	111	11	26
Total Analysis Volume [veh/h]	418	18	28	443	44	104
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.15	0.16
d_M, Delay for Movement [s/veh]	0.00	0.00	8.20	0.00	20.88	14.20
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.05	1.34	1.34
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.18	1.18	33.50	33.50
d_A, Approach Delay [s/veh]	0.00		0.49		16.19	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.49					
Intersection LOS	C					

Intersection Level Of Service Report**Intersection 5: Glen Helen Pkwy (NS) at Glen Helen Rd (EW)**

Control Type:
Analysis Method:
Analysis Period:

Two-way stop
HCM 7th Edition
15 minutes

Delay (sec / veh): 18.5
Level Of Service: C
Volume to Capacity (v/c): 0.147

Intersection Setup

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Base Volume Input [veh/h]	2	191	2	3	207	6	1	0	2	2	0	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	22	163	0	0	159	50	40	0	17	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	362	2	3	374	56	41	0	19	2	0	4
Peak Hour Factor	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930	0.8930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	101	1	1	105	16	11	0	5	1	0	1
Total Analysis Volume [veh/h]	27	405	2	3	419	63	46	0	21	2	0	4
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.03	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	8.38	0.00	0.00	8.10	0.00	0.00	18.50	20.49	9.83	16.13	19.14	9.51
Movement LOS	A	A	A	A	A	A	C	C	A	C	C	A
95th-Percentile Queue Length [veh/ln]	0.08	0.00	0.00	0.01	0.00	0.00	0.51	0.51	0.08	0.03	0.03	0.03
95th-Percentile Queue Length [ft/ln]	1.90	0.00	0.00	0.19	0.00	0.00	12.75	12.75	2.11	0.84	0.84	0.84
d_A, Approach Delay [s/veh]	0.52			0.05			15.78			11.72		
Approach LOS	A			A			C			B		
d_I, Intersection Delay [s/veh]	1.39											
Intersection LOS	C											

Intersection Level Of Service Report**Intersection 6: Glen Helen Pkwy (NS) at Clearwater Pkwy (EW)**

Control Type:	Signalized	Delay (sec / veh):	24.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.459

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	1	0
Entry Pocket Length [ft]	100.00	126.00	218.00	100.00	122.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	3280.00	0.00	0.00
Speed [mph]	40.00		40.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Base Volume Input [veh/h]	112	222	98	118	408	69
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	47	22	21	41	63	39
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	159	244	119	159	471	108
Peak Hour Factor	0.8268	0.8268	0.8268	0.8268	0.8268	0.8268
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	48	74	36	48	142	33
Total Analysis Volume [veh/h]	192	295	144	192	570	131
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	2.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	42	0	14	56	29	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	31	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	47	47	9	59	18	18
g / C, Green / Cycle	0.55	0.55	0.10	0.70	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.06	0.19	0.08	0.06	0.17	0.09
s, saturation flow rate [veh/h]	3427	1530	1714	3427	3329	1530
c, Capacity [veh/h]	1881	840	177	2397	688	316
d1, Uniform Delay [s]	9.17	10.72	37.32	4.07	32.31	29.28
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	1.16	8.59	0.07	2.65	0.87
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.35	0.81	0.08	0.83	0.41
d, Delay for Lane Group [s/veh]	9.28	11.88	45.92	4.14	34.96	30.15
Lane Group LOS	A	B	D	A	C	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.77	2.94	3.23	0.40	5.63	2.32
50th-Percentile Queue Length [ft/ln]	19.28	73.46	80.73	10.10	140.75	57.91
95th-Percentile Queue Length [veh/ln]	1.39	5.29	5.81	0.73	9.52	4.17
95th-Percentile Queue Length [ft/ln]	34.70	132.22	145.32	18.17	238.04	104.24

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	9.28	11.88	45.92	4.14	34.96	30.15
Movement LOS	A	B	D	A	C	C
d_A, Approach Delay [s/veh]	10.85		22.04		34.06	
Approach LOS	B		C		C	
d_I, Intersection Delay [s/veh]	23.99					
Intersection LOS	C					
Intersection V/C	0.459					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	32.23
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.452
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	894	1223	588
d_b, Bicycle Delay [s]	13.01	6.42	21.19
I_b,int, Bicycle LOS Score for Intersection	1.961	1.837	1.560
Bicycle LOS	A	A	A

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: Cajun Blvd (NS) at Kendall Dr (EW)

Control Type:	Two-way stop	Delay (sec / veh):	19.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.038

Intersection Setup

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	1	0
Entry Pocket Length [ft]	100.00	100.00	215.00	100.00	92.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Base Volume Input [veh/h]	79	6	204	121	10	148
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	91	0	54	46	0	20
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	170	6	258	167	10	168
Peak Hour Factor	0.9828	0.9828	0.9828	0.9828	0.9828	0.9828
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	2	66	42	3	43
Total Analysis Volume [veh/h]	173	6	263	170	10	171
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.19	0.00	0.04	0.20
d_M, Delay for Movement [s/veh]	0.00	0.00	8.14	0.00	19.21	10.13
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.69	0.00	0.12	0.73
95th-Percentile Queue Length [ft/ln]	0.00	0.00	17.13	0.00	2.95	18.14
d_A, Approach Delay [s/veh]	0.00		4.94		10.63	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.13					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 8: Project West Dwy (NS) at Cajun Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	19.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	Project East Dwy		Cajun Blvd		Cajun Blvd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	3280.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project East Dwy		Cajun Blvd		Cajun Blvd	
Base Volume Input [veh/h]	0	0	383	0	0	321
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	6	128	70	27	115
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	3	12	3	2	13	3
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	18	514	72	40	439
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	5	140	20	11	119
Total Analysis Volume [veh/h]	4	20	559	78	43	477
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.03	0.01	0.00	0.04	0.00
d_M, Delay for Movement [s/veh]	19.13	10.58	0.00	0.00	8.94	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.14	0.14	0.00	0.00	0.14	0.00
95th-Percentile Queue Length [ft/ln]	3.50	3.50	0.00	0.00	3.53	0.00
d_A, Approach Delay [s/veh]	12.01		0.00		0.74	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.57					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 9: Project East Dwy (NS) Cajun Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.034

Intersection Setup

Name	Project West Dwy		Cajun Blvd		Cajun Blvd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project West Dwy		Cajun Blvd		Cajun Blvd	
Base Volume Input [veh/h]	0	0	0	0	0	321
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	1	197	5	1	115
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	13	3	3	12	3	3
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	4	200	17	4	439
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	1	54	5	1	119
Total Analysis Volume [veh/h]	18	4	217	18	4	477
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.13	9.17	0.00	0.00	7.69	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.12	0.12	0.00	0.00	0.01	0.00
95th-Percentile Queue Length [ft/ln]	3.01	3.01	0.00	0.00	0.22	0.00
d_A, Approach Delay [s/veh]	11.59		0.00		0.06	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.39					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 10: Glen Helen Spur (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.146

Intersection Setup

Name	Glen Helen Spur		Glen Helen Spur		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Spur		Glen Helen Spur		Project Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	11	0	0	104	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	31	0	0	30	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	42	0	0	134	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	11	0	0	36	0
Total Analysis Volume [veh/h]	0	46	0	0	146	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.15	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.29	0.00	9.22	9.01
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.51	0.51
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	12.78	12.78
d_A, Approach Delay [s/veh]	0.00		3.64		9.22	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.01					
Intersection LOS	A					

PM PEAK HOUR

Intersection Level Of Service Report

Intersection 1: Devore Rd (NS) at I-215 NB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.536

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	100.00	100.00	180.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Base Volume Input [veh/h]	171	162	0	0	139	72	0	0	0	121	7	123
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0000	1.0000	1.0404	1.0404	1.0000	1.0000	1.0000	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	103	52	0	0	57	0	0	0	0	131	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	281	221	0	0	202	75	0	0	0	257	7	128
Peak Hour Factor	0.9238	0.9238	0.9500	0.9500	0.9238	0.9238	0.9500	0.9500	0.9500	0.9238	0.9238	0.9238
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	76	60	0	0	55	20	0	0	0	70	2	35
Total Analysis Volume [veh/h]	304	239	0	0	219	81	0	0	0	278	8	139
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	690	763	725	844		534	648
Degree of Utilization, x	0.44	0.31	0.30	0.10		0.54	0.21

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.26	1.34	1.27	0.32		3.14	0.81
95th-Percentile Queue Length [ft]	56.40	33.50	31.83	7.94		78.57	20.24
Approach Delay [s/veh]	10.90		9.16		0.00	14.60	
Approach LOS	B		A		A	B	
Intersection Delay [s/veh]	11.73						
Intersection LOS	B						

Intersection Level Of Service Report
Intersection 2: Devore Rd (NS) at I-215 SB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	24.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.934

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Base Volume Input [veh/h]	0	180	70	78	172	0	113	8	407	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0404	1.0404	1.0404	1.0404	1.0000	1.0404	1.0404	1.0404	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	155	112	0	188	0	0	0	127	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	342	185	81	367	0	118	8	550	0	0	0
Peak Hour Factor	0.9500	0.9729	0.9729	0.9729	0.9729	0.9500	0.9729	0.9729	0.9729	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	88	48	21	94	0	30	2	141	0	0	0
Total Analysis Volume [veh/h]	0	352	190	83	377	0	121	8	565	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	793	671	741	504	605	
Degree of Utilization, x	0.68	0.12	0.51	0.26	0.93	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	5.51	0.42	2.92	1.01	12.27	
95th-Percentile Queue Length [ft]	137.78	10.52	73.05	25.21	306.83	
Approach Delay [s/veh]	16.75	11.83		39.71		0.00
Approach LOS	C	B		E		A
Intersection Delay [s/veh]	24.81					
Intersection LOS	C					

Intersection Level Of Service Report**Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)**

Control Type:	All-way stop	Delay (sec / veh):	95.8
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.524

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	133	53	103	232	51	227	34	31	15	104	163	213
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	196	110	139	164	6	13	15	7	51	26	61
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	148	251	217	380	217	242	48	47	23	159	196	283
Peak Hour Factor	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	68	58	102	58	65	13	13	6	43	53	76
Total Analysis Volume [veh/h]	159	270	234	409	234	261	52	51	25	171	211	305
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	663	437	464	507	353	368	384	386	407	440
Degree of Utilization, x	1.52	0.94	0.50	0.51	0.15	0.10	0.10	0.44	0.52	0.69

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	35.49	10.74	2.78	2.90	0.51	0.34	0.33	2.21	2.90	5.20
95th-Percentile Queue Length [ft]	887.36	268.54	69.58	72.62	12.82	8.57	8.19	55.18	72.40	130.04
Approach Delay [s/veh]	269.02	35.41			13.90			23.37		
Approach LOS	F	E			B			C		
Intersection Delay [s/veh]	95.80									
Intersection LOS	F									

Intersection Level Of Service Report**Intersection 4: Glen Helen Pkwy (NS) at Glen Helen Spur (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	26.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.186

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Base Volume Input [veh/h]	289	0	0	169	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	236	6	8	214	28	80
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	12	21	0	13	19
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	537	18	29	390	41	99
Peak Hour Factor	0.9292	0.9292	0.9292	0.9292	0.9292	0.9292
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	144	5	8	105	11	27
Total Analysis Volume [veh/h]	578	19	31	420	44	107
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.03	0.00	0.19	0.21
d_M, Delay for Movement [s/veh]	0.00	0.00	8.67	0.00	26.17	18.00
Movement LOS	A	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.05	1.84	1.84
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.31	1.31	45.91	45.91
d_A, Approach Delay [s/veh]	0.00		0.60		20.38	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.79					
Intersection LOS	D					

Intersection Level Of Service Report**Intersection 5: Glen Helen Pkwy (NS) at Glen Helen Rd (EW)**

Control Type: Two-way stop
 Analysis Method: HCM 7th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 18.3
 Level Of Service: C
 Volume to Capacity (v/c): 0.166

Intersection Setup

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Base Volume Input [veh/h]	6	157	2	0	175	8	4	0	15	0	0	1
Base Volume Adjustment Factor	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400	1.0400
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	197	0	0	214	28	45	0	19	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	360	2	0	396	36	49	0	35	0	0	1
Peak Hour Factor	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040	0.9040
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	100	1	0	110	10	14	0	10	0	0	0
Total Analysis Volume [veh/h]	20	398	2	0	438	40	54	0	39	0	0	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.05	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.35	0.00	0.00	8.08	0.00	0.00	18.27	20.24	9.94	15.91	18.37	9.42
Movement LOS	A	A	A	A	A	A	C	C	A	C	C	A
95th-Percentile Queue Length [veh/ln]	0.06	0.00	0.00	0.00	0.00	0.00	0.59	0.59	0.16	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.40	0.00	0.00	0.00	0.00	0.00	14.69	14.69	4.00	0.09	0.09	0.09
d_A, Approach Delay [s/veh]	0.40			0.00			14.77			9.42		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	1.56											
Intersection LOS	C											

Intersection Level Of Service Report**Intersection 6: Glen Helen Pkwy (NS) at Clearwater Pkwy (EW)**

Control Type:	Signalized	Delay (sec / veh):	20.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.511

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	1	0
Entry Pocket Length [ft]	100.00	126.00	218.00	100.00	122.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	3280.00	0.00	0.00
Speed [mph]	40.00		40.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Base Volume Input [veh/h]	214	234	57	116	298	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	74	169	48	80	148	39
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	288	403	105	196	446	98
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	78	110	29	53	121	27
Total Analysis Volume [veh/h]	314	439	114	214	486	107
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	2.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	42	0	14	56	29	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	31	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	51	51	7	62	15	15
g / C, Green / Cycle	0.59	0.59	0.08	0.73	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.09	0.29	0.07	0.06	0.15	0.07
s, saturation flow rate [veh/h]	3427	1530	1714	3427	3329	1530
c, Capacity [veh/h]	2035	909	144	2485	602	277
d1, Uniform Delay [s]	7.72	9.84	38.21	3.43	33.42	30.68
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.16	1.84	9.20	0.07	2.62	0.88
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.15	0.48	0.79	0.09	0.81	0.39
d, Delay for Lane Group [s/veh]	7.89	11.68	47.41	3.50	36.04	31.57
Lane Group LOS	A	B	D	A	D	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.12	4.31	2.60	0.38	4.84	1.94
50th-Percentile Queue Length [ft/ln]	28.10	107.63	65.11	9.58	121.04	48.42
95th-Percentile Queue Length [veh/ln]	2.02	7.71	4.69	0.69	8.45	3.49
95th-Percentile Queue Length [ft/ln]	50.58	192.70	117.19	17.24	211.25	87.15

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	7.89	11.68	47.41	3.50	36.04	31.57
Movement LOS	A	B	D	A	D	C
d_A, Approach Delay [s/veh]	10.10		18.76		35.23	
Approach LOS	B		B		D	
d_I, Intersection Delay [s/veh]	20.70					
Intersection LOS	C					
Intersection V/C	0.511					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	32.23
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.454
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	894	1223	588
d_b, Bicycle Delay [s]	13.01	6.42	21.19
I_b,int, Bicycle LOS Score for Intersection	2.181	1.830	1.560
Bicycle LOS	B	A	A

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: Cajun Blvd (NS) at Kendall Dr (EW)

Control Type:	Two-way stop	Delay (sec / veh):	33.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.092

Intersection Setup

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	1	0
Entry Pocket Length [ft]	100.00	100.00	215.00	100.00	92.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Base Volume Input [veh/h]	241	6	182	159	12	191
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	119	0	85	86	0	27
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	360	6	267	245	12	218
Peak Hour Factor	0.9034	0.9034	0.9034	0.9034	0.9034	0.9034
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	100	2	74	68	3	60
Total Analysis Volume [veh/h]	398	7	296	271	13	241
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.25	0.00	0.09	0.37
d_M, Delay for Movement [s/veh]	0.00	0.00	9.14	0.00	33.16	13.70
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	1.01	0.00	0.30	1.70
95th-Percentile Queue Length [ft/ln]	0.00	0.00	25.32	0.00	7.49	42.46
d_A, Approach Delay [s/veh]	0.00		4.77		14.70	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.25					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 8: Project West Dwy (NS) at Cajun Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	23.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.020

Intersection Setup

Name	Project East Dwy		Cajun Blvd		Cajun Blvd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	3280.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project East Dwy		Cajun Blvd		Cajun Blvd	
Base Volume Input [veh/h]	0	0	366	0	0	480
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	4	200	82	33	148
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	3	13	3	4	13	3
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	17	569	86	46	631
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	5	155	23	13	171
Total Analysis Volume [veh/h]	4	18	618	93	50	686
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.03	0.01	0.00	0.06	0.01
d_M, Delay for Movement [s/veh]	23.78	10.97	0.00	0.00	9.25	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.15	0.15	0.00	0.00	0.18	0.00
95th-Percentile Queue Length [ft/ln]	3.79	3.79	0.00	0.00	4.42	0.00
d_A, Approach Delay [s/veh]	13.30		0.00		0.63	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.51					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 9: Project East Dwy (NS) Cajun Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	14.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.054

Intersection Setup

Name	Project West Dwy		Cajun Blvd		Cajun Blvd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project West Dwy		Cajun Blvd		Cajun Blvd	
Base Volume Input [veh/h]	0	0	0	0	0	480
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	1	281	5	1	148
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	13	3	3	13	4	3
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	4	284	18	5	631
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	1	77	5	1	171
Total Analysis Volume [veh/h]	21	4	309	20	5	686
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	14.70	9.72	0.00	0.00	7.91	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.18	0.18	0.00	0.00	0.01	0.00
95th-Percentile Queue Length [ft/ln]	4.62	4.62	0.00	0.00	0.30	0.00
d_A, Approach Delay [s/veh]	13.90		0.00		0.06	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.37					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 10: Glen Helen Spur (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.3
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.154

Intersection Setup

Name	Glen Helen Spur		Glen Helen Spur		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Spur		Glen Helen Spur		Project Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	14	0	0	108	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	32	0	0	33	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	46	0	0	141	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	13	0	0	38	0
Total Analysis Volume [veh/h]	0	50	0	0	153	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.15	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.29	0.00	9.27	9.06
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.54	0.54
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	13.54	13.54
d_A, Approach Delay [s/veh]	0.00		3.65		9.27	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.99					
Intersection LOS	A					

**OPENING YEAR (2025) WITH PROJECT
WITH IMPROVEMENTS**

AM PEAK HOUR

Intersection Level Of Service Report**Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)**

Control Type:	Signalized	Delay (sec / veh):	29.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.586

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↵↵			↵↵			↵↵			↵↵		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	8	63	103	205	70	13	123	75	32	108	9	204
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	206	69	105	160	1	9	3	0	29	11	62
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	272	176	318	233	15	137	81	33	141	20	274
Peak Hour Factor	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	74	48	86	63	4	37	22	9	38	5	74
Total Analysis Volume [veh/h]	10	295	191	345	253	16	149	88	36	153	22	297
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	125
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	81	0	0	81	0	0	44	0	0	44	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	26	0	0	31	0	0	24	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	125	125	125	125	125	125	125	125	125	125	125
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	77	77	77	77	77	40	40	40	40	40	40
g / C, Green / Cycle	0.62	0.62	0.62	0.62	0.62	0.32	0.32	0.32	0.32	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.01	0.29	0.37	0.14	0.01	0.14	0.04	0.04	0.12	0.01	0.19
s, saturation flow rate [veh/h]	1128	1683	924	1800	1530	1077	1800	1629	1287	1800	1530
c, Capacity [veh/h]	666	1038	471	1110	944	205	575	520	411	575	488
d1, Uniform Delay [s]	13.38	12.90	30.41	10.68	9.27	54.04	30.01	30.07	37.31	29.31	35.93
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.17
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.04	1.52	9.66	0.48	0.03	4.87	0.08	0.10	0.56	0.03	1.91
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.47	0.73	0.23	0.02	0.73	0.11	0.12	0.37	0.04	0.61
d, Delay for Lane Group [s/veh]	13.42	14.42	40.07	11.15	9.30	58.90	30.10	30.17	37.87	29.34	37.84
Lane Group LOS	B	B	D	B	A	E	C	C	D	C	D
Critical Lane Group	No	No	Yes	No	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.14	7.26	9.99	3.09	0.17	4.92	1.36	1.30	3.89	0.46	7.82
50th-Percentile Queue Length [ft/ln]	3.39	181.40	249.74	77.13	4.25	122.97	34.10	32.55	97.35	11.53	195.44
95th-Percentile Queue Length [veh/ln]	0.24	11.67	15.17	5.55	0.31	8.56	2.46	2.34	7.01	0.83	12.40
95th-Percentile Queue Length [ft/ln]	6.09	291.84	379.32	138.83	7.65	213.90	61.38	58.60	175.23	20.75	310.07

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	13.42	14.42	14.42	40.07	11.15	9.30	58.90	30.12	30.17	37.87	29.34	37.84
Movement LOS	B	B	B	D	B	A	E	C	C	D	C	D
d_A, Approach Delay [s/veh]	14.40			27.35			45.84			37.45		
Approach LOS	B			C			D			D		
d_I, Intersection Delay [s/veh]	29.18											
Intersection LOS	C											
Intersection V/C	0.586											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0			11.0			11.0			11.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	51.97			51.97			51.97			51.97		
I_p,int, Pedestrian LOS Score for Intersection	2.580			2.799			2.403			3.056		
Crosswalk LOS	B			C			B			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	1232			1232			640			640		
d_b, Bicycle Delay [s]	9.21			9.21			28.89			28.89		
I_b,int, Bicycle LOS Score for Intersection	2.378			2.573			1.785			1.949		
Bicycle LOS	B			B			A			A		

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



PM PEAK HOUR

Intersection Level Of Service Report**Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)**

Control Type:
Analysis Method:
Analysis Period:

Signalized
HCM 7th Edition
15 minutes

Delay (sec / veh):
Level Of Service:
Volume to Capacity (v/c):

37.8
D
0.706

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	133	53	103	232	51	227	34	31	15	104	163	213
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	196	110	139	164	6	13	15	7	51	26	61
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	148	251	217	380	217	242	48	47	23	159	196	283
Peak Hour Factor	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287	0.9287
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	68	58	102	58	65	13	13	6	43	53	76
Total Analysis Volume [veh/h]	159	270	234	409	234	261	52	51	25	171	211	305
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	10	0	0	10	0	0	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	48	0	0	48	0	0	42	0	0	42	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	27	0	0	27	0	0	31	0	0	26	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	57	57	57	57	25	25	25	25	25	25
g / C, Green / Cycle	0.63	0.63	0.63	0.63	0.28	0.28	0.28	0.28	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.48	0.45	0.13	0.17	0.06	0.02	0.02	0.13	0.12	0.20
s, saturation flow rate [veh/h]	1395	909	1800	1530	899	1800	1610	1344	1800	1530
c, Capacity [veh/h]	932	352	1138	968	142	502	449	394	502	426
d1, Uniform Delay [s]	11.44	24.96	6.99	7.33	41.39	23.93	23.97	30.28	26.52	29.24
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.60	99.42	0.41	0.69	1.57	0.06	0.08	0.75	0.56	2.25
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.71	1.16	0.21	0.27	0.37	0.08	0.08	0.43	0.42	0.72
d, Delay for Lane Group [s/veh]	16.04	124.38	7.40	8.01	42.97	23.99	24.05	31.03	27.08	31.50
Lane Group LOS	B	F	A	A	D	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	8.57	16.61	1.71	2.03	1.17	0.60	0.58	3.22	3.64	5.95
50th-Percentile Queue Length [ft/ln]	214.13	415.21	42.67	50.76	29.35	14.90	14.54	80.59	91.03	148.64
95th-Percentile Queue Length [veh/ln]	13.36	25.95	3.07	3.65	2.11	1.07	1.05	5.80	6.55	9.94
95th-Percentile Queue Length [ft/ln]	334.12	648.75	76.81	91.36	52.83	26.83	26.17	145.05	163.86	248.61

Movement, Approach, & Intersection Results

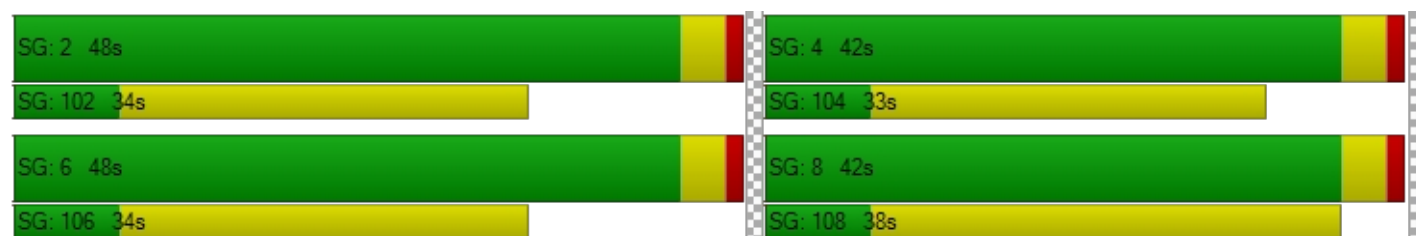
d_M, Delay for Movement [s/veh]	16.04	16.04	16.04	124.38	7.40	8.01	42.97	24.00	24.05	31.03	27.08	31.50
Movement LOS	B	B	B	F	A	A	D	C	C	C	C	C
d_A, Approach Delay [s/veh]	16.04			60.50			31.72			30.02		
Approach LOS	B			E			C			C		
d_I, Intersection Delay [s/veh]	37.79											
Intersection LOS	D											
Intersection V/C	0.706											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0			11.0			11.0			11.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	34.67			34.67			34.67			34.67		
I_p,int, Pedestrian LOS Score for Intersection	2.668			2.702			2.698			3.195		
Crosswalk LOS	B			B			B			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	978			978			844			844		
d_b, Bicycle Delay [s]	11.75			11.75			15.02			15.02		
I_b,int, Bicycle LOS Score for Intersection	2.654			3.051			1.665			2.126		
Bicycle LOS	B			C			A			B		

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



YEAR 2040 WITHOUT PROJECT

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Devore Rd (NS) at I-215 NB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.393

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	100.00	100.00	180.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Base Volume Input [veh/h]	192	114	0	0	282	133	0	0	0	85	0	135
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	192	114	0	0	282	133	0	0	0	85	0	135
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	51	30	0	0	74	35	0	0	0	22	0	36
Total Analysis Volume [veh/h]	202	120	0	0	297	140	0	0	0	89	0	142
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	678	748	757	887		547	669
Degree of Utilization, x	0.30	0.16	0.39	0.16		0.16	0.21

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.25	0.57	1.88	0.56		0.58	0.80
95th-Percentile Queue Length [ft]	31.21	14.23	46.94	13.97		14.43	19.97
Approach Delay [s/veh]	9.58		9.54		0.00	9.92	
Approach LOS	A		A		A	A	
Intersection Delay [s/veh]	9.64						
Intersection LOS	A						

Intersection Level Of Service Report
Intersection 2: Devore Rd (NS) at I-215 SB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	33.9
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.997

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Base Volume Input [veh/h]	0	278	388	95	330	0	34	3	550	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	278	388	95	330	0	34	3	550	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	73	102	25	87	0	9	1	145	0	0	0
Total Analysis Volume [veh/h]	0	293	408	100	347	0	36	3	579	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	820	660	727	489	581	
Degree of Utilization, x	0.85	0.15	0.48	0.08	1.00	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	10.40	0.53	2.60	0.26	14.61	
95th-Percentile Queue Length [ft]	260.03	13.29	64.91	6.48	365.27	
Approach Delay [s/veh]	27.23	11.42		57.68		0.00
Approach LOS	D	B		F		A
Intersection Delay [s/veh]	33.88					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	67.3
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.276

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	9	130	114	500	343	32	262	84	37	120	20	319
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	130	114	500	343	32	262	84	37	120	20	319
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	34	30	132	90	8	69	22	10	32	5	84
Total Analysis Volume [veh/h]	9	137	120	526	361	34	276	88	39	126	21	336
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	401	526	437	477	356	374	402	363	381	409
Degree of Utilization, x	0.66	1.28	0.83	0.07	0.77	0.24	0.10	0.35	0.06	0.82

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.65	22.84	7.82	0.23	6.33	0.90	0.32	1.52	0.17	7.54
95th-Percentile Queue Length [ft]	116.24	571.12	195.40	5.73	158.16	22.52	8.01	38.02	4.36	188.50
Approach Delay [s/veh]	28.07	111.63			32.06			33.72		
Approach LOS	D	F			D			D		
Intersection Delay [s/veh]	67.29									
Intersection LOS	F									

Intersection Level Of Service Report**Intersection 4: Glen Helen Pkwy (NS) at Glen Helen Spur (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Base Volume Input [veh/h]	221	0	0	470	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	221	0	0	470	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	58	0	0	124	0	0
Total Analysis Volume [veh/h]	233	0	0	495	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.67	0.00	14.15	9.44
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		11.79	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report**Intersection 5: Glen Helen Pkwy (NS) at Glen Helen Rd (EW)**

Control Type:
Analysis Method:
Analysis Period:

Two-way stop
HCM 7th Edition
15 minutes

Delay (sec / veh):
Level Of Service:
Volume to Capacity (v/c):

16.8
C
0.126

Intersection Setup

Name	Glen Helen Pkwy			Glen Helen Pkwy								
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Glen Helen Pkwy			Glen Helen Pkwy								
Base Volume Input [veh/h]	25	345	2	3	357	58	42	0	20	2	0	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	345	2	3	357	58	42	0	20	2	0	4
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	91	1	1	94	15	11	0	5	1	0	1
Total Analysis Volume [veh/h]	26	363	2	3	376	61	44	0	21	2	0	4
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.03	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	8.25	0.00	0.00	8.00	0.00	0.00	16.77	18.46	9.67	14.96	17.52	9.37
Movement LOS	A	A	A	A	A	A	C	C	A	B	C	A
95th-Percentile Queue Length [veh/ln]	0.07	0.00	0.00	0.01	0.00	0.00	0.43	0.43	0.08	0.03	0.03	0.03
95th-Percentile Queue Length [ft/ln]	1.76	0.00	0.00	0.19	0.00	0.00	10.67	10.67	2.04	0.78	0.78	0.78
d_A, Approach Delay [s/veh]	0.55			0.05			14.48			11.23		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	1.38											
Intersection LOS	C											

Intersection Level Of Service Report**Intersection 6: Glen Helen Pkwy (NS) at Clearwater Pkwy (EW)**

Control Type:	Signalized	Delay (sec / veh):	23.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.432

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	1	0
Entry Pocket Length [ft]	100.00	126.00	218.00	100.00	122.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	3280.00	0.00	0.00
Speed [mph]	40.00		40.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Base Volume Input [veh/h]	141	261	174	302	502	112
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	141	261	174	302	502	112
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	37	69	46	79	132	29
Total Analysis Volume [veh/h]	148	275	183	318	528	118
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	2.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	42	0	14	56	29	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	31	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	47	47	10	61	16	16
g / C, Green / Cycle	0.55	0.55	0.12	0.72	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.04	0.17	0.10	0.09	0.15	0.07
s, saturation flow rate [veh/h]	3618	1615	1810	3618	3514	1615
c, Capacity [veh/h]	2005	895	214	2604	654	301
d1, Uniform Delay [s]	8.81	10.18	36.77	3.66	33.15	30.39
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.07	0.89	9.27	0.10	2.42	0.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.31	0.85	0.12	0.81	0.39
d, Delay for Lane Group [s/veh]	8.88	11.07	46.04	3.76	35.57	31.22
Lane Group LOS	A	B	D	A	D	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.57	2.60	4.11	0.61	5.23	2.12
50th-Percentile Queue Length [ft/ln]	14.34	64.98	102.85	15.14	130.69	53.04
95th-Percentile Queue Length [veh/ln]	1.03	4.68	7.40	1.09	8.98	3.82
95th-Percentile Queue Length [ft/ln]	25.81	116.96	185.12	27.26	224.43	95.47

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	8.88	11.07	46.04	3.76	35.57	31.22
Movement LOS	A	B	D	A	D	C
d_A, Approach Delay [s/veh]	10.31		19.20		34.78	
Approach LOS	B		B		C	
d_I, Intersection Delay [s/veh]	23.21					
Intersection LOS	C					
Intersection V/C	0.432					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	32.23
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.442
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	894	1223	588
d_b, Bicycle Delay [s]	13.01	6.42	21.19
I_b,int, Bicycle LOS Score for Intersection	1.909	1.973	1.560
Bicycle LOS	A	A	A

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: Cajun Blvd (NS) at Kendall Dr (EW)

Control Type:	Two-way stop	Delay (sec / veh):	26.1
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.105

Intersection Setup

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	1	0
Entry Pocket Length [ft]	100.00	100.00	215.00	100.00	92.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Base Volume Input [veh/h]	141	8	322	221	19	173
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	141	8	322	221	19	173
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	37	2	85	58	5	46
Total Analysis Volume [veh/h]	148	8	339	233	20	182
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.24	0.00	0.10	0.20
d_M, Delay for Movement [s/veh]	0.00	0.00	8.28	0.00	26.10	10.01
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.92	0.00	0.35	0.75
95th-Percentile Queue Length [ft/ln]	0.00	0.00	23.02	0.00	8.66	18.87
d_A, Approach Delay [s/veh]	0.00		4.91		11.61	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.54					
Intersection LOS	D					

PM PEAK HOUR

Intersection Level Of Service Report

Intersection 1: Devore Rd (NS) at I-215 NB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	10.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.440

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	100.00	100.00	180.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Base Volume Input [veh/h]	290	280	0	0	169	82	0	0	0	187	8	140
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	290	280	0	0	169	82	0	0	0	187	8	140
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	76	74	0	0	44	22	0	0	0	49	2	37
Total Analysis Volume [veh/h]	305	295	0	0	178	86	0	0	0	197	8	147
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	693	767	717	833		533	645
Degree of Utilization, x	0.44	0.38	0.25	0.10		0.38	0.23

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.25	1.82	0.98	0.34		1.80	0.87
95th-Percentile Queue Length [ft]	56.26	45.43	24.43	8.61		44.94	21.82
Approach Delay [s/veh]	11.11		8.77		0.00	12.07	
Approach LOS	B		A		A	B	
Intersection Delay [s/veh]	10.88						
Intersection LOS	B						

Intersection Level Of Service Report
Intersection 2: Devore Rd (NS) at I-215 SB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	37.7
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.995

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Base Volume Input [veh/h]	0	437	332	105	262	0	124	13	493	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	437	332	105	262	0	124	13	493	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	115	87	28	69	0	33	3	130	0	0	0
Total Analysis Volume [veh/h]	0	460	349	111	276	0	131	14	519	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	813	651	716	479	568	
Degree of Utilization, x	1.00	0.17	0.39	0.30	0.91	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	17.17	0.61	1.82	1.26	11.20	
95th-Percentile Queue Length [ft]	429.30	15.27	45.49	31.54	280.08	
Approach Delay [s/veh]	50.88	10.41		37.42		0.00
Approach LOS	F	B		E		A
Intersection Delay [s/veh]	37.66					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)

Control Type:	All-way stop	Delay (sec / veh):	90.4
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.358

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	204	225	165	331	98	251	227	77	67	154	201	468
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	204	225	165	331	98	251	227	77	67	154	201	468
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	59	43	87	26	66	60	20	18	41	53	123
Total Analysis Volume [veh/h]	215	237	174	348	103	264	239	81	71	162	212	493
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	626	390	411	443	332	346	369	369	387	493
Degree of Utilization, x	1.36	0.89	0.25	0.60	0.72	0.23	0.19	0.44	0.55	1.19

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	28.80	9.09	0.98	3.79	5.31	0.89	0.70	2.16	3.17	19.34
95th-Percentile Queue Length [ft]	720.01	227.28	24.50	94.70	132.82	22.33	17.58	54.08	79.34	483.47
Approach Delay [s/veh]	197.69	36.13			28.79			85.51		
Approach LOS	F	E			D			F		
Intersection Delay [s/veh]	90.41									
Intersection LOS	F									

Intersection Level Of Service Report**Intersection 4: Glen Helen Pkwy (NS) at Glen Helen Spur (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Base Volume Input [veh/h]	560	0	0	320	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	560	0	0	320	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	147	0	0	84	0	0
Total Analysis Volume [veh/h]	589	0	0	337	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.61	0.00	16.97	12.03
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		14.50	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report**Intersection 5: Glen Helen Pkwy (NS) at Glen Helen Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	15.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.134

Intersection Setup

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Base Volume Input [veh/h]	19	304	2	0	343	37	50	0	36	0	0	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	304	2	0	343	37	50	0	36	0	0	1
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	80	1	0	90	10	13	0	9	0	0	0
Total Analysis Volume [veh/h]	20	320	2	0	361	39	53	0	38	0	0	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.05	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.13	0.00	0.00	7.88	0.00	0.00	15.54	17.00	9.64	13.96	15.84	9.18
Movement LOS	A	A	A	A	A	A	C	C	A	B	C	A
95th-Percentile Queue Length [veh/ln]	0.05	0.00	0.00	0.00	0.00	0.00	0.46	0.46	0.15	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.30	0.00	0.00	0.00	0.00	0.00	11.52	11.52	3.67	0.09	0.09	0.09
d_A, Approach Delay [s/veh]	0.48			0.00			13.08			9.18		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	1.63											
Intersection LOS	C											

Intersection Level Of Service Report**Intersection 6: Glen Helen Pkwy (NS) at Clearwater Pkwy (EW)**

Control Type:	Signalized	Delay (sec / veh):	17.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.393

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	1	0
Entry Pocket Length [ft]	100.00	126.00	218.00	100.00	122.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	3280.00	0.00	0.00
Speed [mph]	40.00		40.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Base Volume Input [veh/h]	460	325	108	262	364	100
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	460	325	108	262	364	100
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	121	86	28	69	96	26
Total Analysis Volume [veh/h]	484	342	114	276	383	105
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	2.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	42	0	14	56	29	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	31	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	54	54	7	65	12	12
g / C, Green / Cycle	0.64	0.64	0.08	0.76	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.13	0.21	0.06	0.08	0.11	0.07
s, saturation flow rate [veh/h]	3618	1615	1810	3618	3514	1615
c, Capacity [veh/h]	2295	1025	147	2759	504	232
d1, Uniform Delay [s]	6.56	7.21	38.33	2.60	35.03	33.38
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.21	0.88	8.51	0.07	2.39	1.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.21	0.33	0.78	0.10	0.76	0.45
d, Delay for Lane Group [s/veh]	6.77	8.09	46.84	2.67	37.42	34.77
Lane Group LOS	A	A	D	A	D	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.54	2.54	2.58	0.37	3.85	2.01
50th-Percentile Queue Length [ft/ln]	38.54	63.50	64.57	9.15	96.23	50.32
95th-Percentile Queue Length [veh/ln]	2.77	4.57	4.65	0.66	6.93	3.62
95th-Percentile Queue Length [ft/ln]	69.37	114.30	116.23	16.47	173.21	90.58

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	6.77	8.09	46.84	2.67	37.42	34.77
Movement LOS	A	A	D	A	D	C
d_A, Approach Delay [s/veh]	7.32		15.58		36.85	
Approach LOS	A		B		D	
d_I, Intersection Delay [s/veh]	17.67					
Intersection LOS	B					
Intersection V/C	0.393					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	32.23
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.396
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	894	1223	588
d_b, Bicycle Delay [s]	13.01	6.42	21.19
I_b,int, Bicycle LOS Score for Intersection	2.241	1.881	1.560
Bicycle LOS	B	A	A

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: Cajun Blvd (NS) at Kendall Dr (EW)

Control Type:	Two-way stop	Delay (sec / veh):	28.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.112

Intersection Setup

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	1	0
Entry Pocket Length [ft]	100.00	100.00	215.00	100.00	92.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Base Volume Input [veh/h]	349	10	270	192	18	227
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	349	10	270	192	18	227
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	92	3	71	51	5	60
Total Analysis Volume [veh/h]	367	11	284	202	19	239
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.24	0.00	0.11	0.35
d_M, Delay for Movement [s/veh]	0.00	0.00	8.96	0.00	28.79	13.17
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.93	0.00	0.37	1.59
95th-Percentile Queue Length [ft/ln]	0.00	0.00	23.28	0.00	9.24	39.69
d_A, Approach Delay [s/veh]	0.00		5.24		14.32	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.56					
Intersection LOS	D					

YEAR 2040 WITH PROJECT

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Devore Rd (NS) at I-215 NB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.398

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	100.00	100.00	180.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Base Volume Input [veh/h]	192	114	0	0	282	133	0	0	0	85	0	135
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	28	3	0	0	2	0	0	0	0	28	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	220	117	0	0	284	133	0	0	0	113	0	135
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	58	31	0	0	75	35	0	0	0	30	0	36
Total Analysis Volume [veh/h]	232	123	0	0	299	140	0	0	0	119	0	142
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	677	747	752	880		541	660
Degree of Utilization, x	0.34	0.16	0.40	0.16		0.22	0.22

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.52	0.59	1.92	0.56		0.83	0.81
95th-Percentile Queue Length [ft]	38.06	14.67	47.90	14.09		20.83	20.32
Approach Delay [s/veh]	9.97		9.64		0.00	10.37	
Approach LOS	A		A		A	B	
Intersection Delay [s/veh]	9.93						
Intersection LOS	A						

Intersection Level Of Service Report
Intersection 2: Devore Rd (NS) at I-215 SB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	46.3
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.078

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Base Volume Input [veh/h]	0	278	388	95	330	0	34	3	550	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	31	27	0	30	0	0	0	28	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	309	415	95	360	0	34	3	578	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	81	109	25	95	0	9	1	152	0	0	0
Total Analysis Volume [veh/h]	0	325	437	100	379	0	36	3	608	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	813	655	721	477	608	
Degree of Utilization, x	0.94	0.15	0.53	0.08	1.08	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	14.02	0.54	3.10	0.27	18.09	
95th-Percentile Queue Length [ft]	350.43	13.41	77.53	6.66	452.13	
Approach Delay [s/veh]	38.79	12.28		80.41		0.00
Approach LOS	E	B		F		A
Intersection Delay [s/veh]	46.33					
Intersection LOS	E					

Intersection Level Of Service Report**Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)**

Control Type:	All-way stop	Delay (sec / veh):	115.2
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.557

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	9	130	114	500	343	32	262	84	37	120	20	319
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	54	46	51	7	0	0	1	0	0	1	4
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	184	160	551	350	32	262	85	37	120	21	323
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	48	42	145	92	8	69	22	10	32	6	85
Total Analysis Volume [veh/h]	9	194	168	580	368	34	276	89	39	126	22	340
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	374	580	393	426	324	338	361	331	346	370
Degree of Utilization, x	0.99	1.56	0.94	0.08	0.85	0.26	0.11	0.38	0.06	0.92

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	11.63	32.61	10.29	0.26	7.63	1.04	0.36	1.73	0.20	9.58
95th-Percentile Queue Length [ft]	290.85	815.33	257.18	6.47	190.78	25.93	9.00	43.22	5.07	239.50
Approach Delay [s/veh]	76.71	193.33			42.04			47.82		
Approach LOS	F	F			E			E		
Intersection Delay [s/veh]	115.20									
Intersection LOS	F									

Intersection Level Of Service Report**Intersection 4: Glen Helen Pkwy (NS) at Glen Helen Spur (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	17.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.123

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Base Volume Input [veh/h]	221	0	0	470	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	23	4	7	0	27	77
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	12	18	0	13	17
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	244	16	25	470	40	94
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	64	4	7	124	11	25
Total Analysis Volume [veh/h]	257	17	26	495	42	99
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.12	0.13
d_M, Delay for Movement [s/veh]	0.00	0.00	7.80	0.00	17.67	11.75
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.04	0.04	0.98	0.98
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.10	1.10	24.59	24.59
d_A, Approach Delay [s/veh]	0.00		0.39		13.51	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.25					
Intersection LOS	C					

Intersection Level Of Service Report**Intersection 5: Glen Helen Pkwy (NS) at Glen Helen Rd (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	17.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.135

Intersection Setup

Name	Glen Helen Pkwy			Glen Helen Pkwy								
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Glen Helen Pkwy			Glen Helen Pkwy								
Base Volume Input [veh/h]	25	345	2	3	357	58	42	0	20	2	0	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	27	0	0	27	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	372	2	3	384	58	42	0	20	2	0	4
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	98	1	1	101	15	11	0	5	1	0	1
Total Analysis Volume [veh/h]	26	392	2	3	404	61	44	0	21	2	0	4
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.03	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	8.33	0.00	0.00	8.07	0.00	0.00	17.77	19.66	9.77	15.71	18.52	9.47
Movement LOS	A	A	A	A	A	A	C	C	A	C	C	A
95th-Percentile Queue Length [veh/ln]	0.07	0.00	0.00	0.01	0.00	0.00	0.46	0.46	0.08	0.03	0.03	0.03
95th-Percentile Queue Length [ft/ln]	1.80	0.00	0.00	0.19	0.00	0.00	11.56	11.56	2.08	0.82	0.82	0.82
d_A, Approach Delay [s/veh]	0.52			0.05			15.18			11.55		
Approach LOS	A			A			C			B		
d_I, Intersection Delay [s/veh]	1.35											
Intersection LOS	C											

Intersection Level Of Service Report**Intersection 6: Glen Helen Pkwy (NS) at Clearwater Pkwy (EW)**

Control Type:	Signalized	Delay (sec / veh):	22.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.434

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	1	0
Entry Pocket Length [ft]	100.00	126.00	218.00	100.00	122.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	3280.00	0.00	0.00
Speed [mph]	40.00		40.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Base Volume Input [veh/h]	141	261	174	302	502	112
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	25	0	3	24	0	2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	166	261	177	326	502	114
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	44	69	47	86	132	30
Total Analysis Volume [veh/h]	175	275	186	343	528	120
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	2.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	42	0	14	56	29	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	31	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	47	47	10	61	16	16
g / C, Green / Cycle	0.55	0.55	0.12	0.72	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.05	0.17	0.10	0.09	0.15	0.07
s, saturation flow rate [veh/h]	3618	1615	1810	3618	3514	1615
c, Capacity [veh/h]	2005	895	214	2604	654	301
d1, Uniform Delay [s]	8.88	10.19	36.84	3.69	33.15	30.43
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.09	0.89	10.16	0.10	2.42	0.86
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.31	0.87	0.13	0.81	0.40
d, Delay for Lane Group [s/veh]	8.97	11.08	47.00	3.80	35.56	31.28
Lane Group LOS	A	B	D	A	D	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.68	2.60	4.23	0.66	5.23	2.16
50th-Percentile Queue Length [ft/ln]	17.09	64.99	105.79	16.47	130.67	54.02
95th-Percentile Queue Length [veh/ln]	1.23	4.68	7.61	1.19	8.98	3.89
95th-Percentile Queue Length [ft/ln]	30.77	116.98	190.13	29.64	224.41	97.24

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	8.97	11.08	47.00	3.80	35.56	31.28
Movement LOS	A	B	D	A	D	C
d_A, Approach Delay [s/veh]	10.26		18.99		34.77	
Approach LOS	B		B		C	
d_I, Intersection Delay [s/veh]	22.86					
Intersection LOS	C					
Intersection V/C	0.434					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	32.23
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.443
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	894	1223	588
d_b, Bicycle Delay [s]	13.01	6.42	21.19
I_b,int, Bicycle LOS Score for Intersection	1.931	1.996	1.560
Bicycle LOS	A	A	A

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: Cajun Blvd (NS) at Kendall Dr (EW)

Control Type:	Two-way stop	Delay (sec / veh):	27.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.111

Intersection Setup

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	1	0
Entry Pocket Length [ft]	100.00	100.00	215.00	100.00	92.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Base Volume Input [veh/h]	141	8	322	221	19	173
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	6	12	0	6
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	152	8	328	233	19	179
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	2	86	61	5	47
Total Analysis Volume [veh/h]	160	8	345	245	20	188
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.24	0.00	0.11	0.21
d_M, Delay for Movement [s/veh]	0.00	0.00	8.34	0.00	27.52	10.16
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.95	0.00	0.37	0.80
95th-Percentile Queue Length [ft/ln]	0.00	0.00	23.86	0.00	9.22	20.02
d_A, Approach Delay [s/veh]	0.00		4.88		11.83	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.53					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 8: Project West Dwy (NS) at Cajun Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	24.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.021

Intersection Setup

Name	Project East Dwy		Cajun Blvd		Cajun Blvd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	3280.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project East Dwy		Cajun Blvd		Cajun Blvd	
Base Volume Input [veh/h]	0	0	698	0	0	449
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	6	24	70	27	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	3	12	3	2	13	3
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	18	725	72	40	453
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	5	191	19	11	119
Total Analysis Volume [veh/h]	4	19	763	76	42	477
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.03	0.01	0.00	0.05	0.00
d_M, Delay for Movement [s/veh]	24.22	11.59	0.00	0.00	9.72	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.17	0.17	0.00	0.00	0.16	0.00
95th-Percentile Queue Length [ft/ln]	4.20	4.20	0.00	0.00	4.12	0.00
d_A, Approach Delay [s/veh]	13.79		0.00		0.79	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.53					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 9: Project East Dwy (NS) Cajun Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	23.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.085

Intersection Setup

Name	Project West Dwy		Cajun Blvd		Cajun Blvd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project West Dwy		Cajun Blvd		Cajun Blvd	
Base Volume Input [veh/h]	0	0	698	0	0	449
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	1	93	5	1	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	13	3	3	12	3	3
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	4	794	17	4	453
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	209	4	1	119
Total Analysis Volume [veh/h]	18	4	836	18	4	477
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.01	0.01	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	23.56	12.71	0.00	0.00	9.56	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.30	0.30	0.00	0.00	0.02	0.00
95th-Percentile Queue Length [ft/ln]	7.52	7.52	0.00	0.00	0.38	0.00
d_A, Approach Delay [s/veh]	21.59		0.00		0.08	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.38					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 10: Glen Helen Spur (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.141

Intersection Setup

Name	Glen Helen Spur		Glen Helen Spur		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Spur		Glen Helen Spur		Project Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	11	0	0	104	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	31	0	0	30	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	42	0	0	134	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	11	0	0	35	0
Total Analysis Volume [veh/h]	0	44	0	0	141	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.14	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.28	0.00	9.19	8.98
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.49	0.49
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	12.26	12.26
d_A, Approach Delay [s/veh]	0.00		3.64		9.19	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.01					
Intersection LOS	A					

PM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Devore Rd (NS) at I-215 NB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.485

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	160.00	100.00	100.00	100.00	100.00	180.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Devore Rd			Devore Rd			I-215 NB Ramps			I-215 NB Ramps		
Base Volume Input [veh/h]	290	280	0	0	169	82	0	0	0	187	8	140
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	29	2	0	0	3	0	0	0	0	32	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	319	282	0	0	172	82	0	0	0	219	8	140
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	84	74	0	0	45	22	0	0	0	58	2	37
Total Analysis Volume [veh/h]	336	297	0	0	181	86	0	0	0	231	8	147
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	693	766	712	826		527	638
Degree of Utilization, x	0.48	0.39	0.25	0.10		0.45	0.23

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.66	1.84	1.01	0.35		2.34	0.89
95th-Percentile Queue Length [ft]	66.60	45.97	25.21	8.69		58.41	22.15
Approach Delay [s/veh]	11.58		8.86		0.00	13.15	
Approach LOS	B		A		A	B	
Intersection Delay [s/veh]	11.49						
Intersection LOS	B						

Intersection Level Of Service Report
Intersection 2: Devore Rd (NS) at I-215 SB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	51.9
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.082

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Base Volume Input [veh/h]	0	437	332	105	262	0	124	13	493	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	31	30	0	35	0	0	0	32	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	468	362	105	297	0	124	13	525	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	123	95	28	78	0	33	3	138	0	0	0
Total Analysis Volume [veh/h]	0	493	381	111	313	0	131	14	553	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	874	657	722	483	570	
Degree of Utilization, x	1.08	0.17	0.43	0.30	0.97	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	22.72	0.60	2.20	1.25	13.38	
95th-Percentile Queue Length [ft]	568.02	15.12	54.98	31.30	334.53	
Approach Delay [s/veh]	76.07	10.88		46.56		0.00
Approach LOS	F	B		E		A
Intersection Delay [s/veh]	51.90					
Intersection LOS	F					

Intersection Level Of Service Report**Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)**

Control Type:	All-way stop	Delay (sec / veh):	148.5
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.721

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	204	225	165	331	98	251	227	77	67	154	201	468
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	55	52	59	8	0	0	1	0	0	1	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	204	280	217	390	106	251	227	78	67	154	202	474
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	74	57	103	28	66	60	21	18	41	53	125
Total Analysis Volume [veh/h]	215	295	228	411	112	264	239	82	71	162	213	499
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	738	411	406	438	312	326	346	349	367	499
Degree of Utilization, x	1.72	1.06	0.28	0.60	0.76	0.25	0.20	0.46	0.58	1.27

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	44.83	14.03	1.11	3.86	5.93	0.98	0.76	2.35	3.52	21.95
95th-Percentile Queue Length [ft]	1120.75	350.66	27.68	96.53	148.15	24.43	18.91	58.78	88.09	548.63
Approach Delay [s/veh]	354.92	58.98			33.03			106.55		
Approach LOS	F	F			D			F		
Intersection Delay [s/veh]	148.48									
Intersection LOS	F									

Intersection Level Of Service Report**Intersection 4: Glen Helen Pkwy (NS) at Glen Helen Spur (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	25.1
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.171

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Base Volume Input [veh/h]	560	0	0	320	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	27	6	8	0	28	80
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	12	21	0	13	19
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	587	18	29	320	41	99
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	154	5	8	84	11	26
Total Analysis Volume [veh/h]	618	19	31	337	43	104
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.03	0.00	0.17	0.21
d_M, Delay for Movement [s/veh]	0.00	0.00	8.80	0.00	25.07	18.16
Movement LOS	A	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.05	1.77	1.77
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.31	1.31	44.19	44.19
d_A, Approach Delay [s/veh]	0.00		0.74		20.18	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.81					
Intersection LOS	D					

Intersection Level Of Service Report**Intersection 5: Glen Helen Pkwy (NS) at Glen Helen Rd (EW)**

Control Type: Two-way stop
 Analysis Method: HCM 7th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 16.6
 Level Of Service: C
 Volume to Capacity (v/c): 0.145

Intersection Setup

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Glen Helen Pkwy			Glen Helen Pkwy			Glen Helen Rd			Glen Helen Rd		
Base Volume Input [veh/h]	19	304	2	0	343	37	50	0	36	0	0	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	33	0	0	28	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	337	2	0	371	37	50	0	36	0	0	1
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	89	1	0	98	10	13	0	9	0	0	0
Total Analysis Volume [veh/h]	20	355	2	0	391	39	53	0	38	0	0	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.05	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.21	0.00	0.00	7.97	0.00	0.00	16.55	18.22	9.75	14.74	16.83	9.28
Movement LOS	A	A	A	A	A	A	C	C	A	B	C	A
95th-Percentile Queue Length [veh/ln]	0.05	0.00	0.00	0.00	0.00	0.00	0.50	0.50	0.15	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.34	0.00	0.00	0.00	0.00	0.00	12.60	12.60	3.75	0.09	0.09	0.09
d_A, Approach Delay [s/veh]	0.44			0.00			13.71			9.28		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	1.58											
Intersection LOS	C											

Intersection Level Of Service Report**Intersection 6: Glen Helen Pkwy (NS) at Clearwater Pkwy (EW)**

Control Type:	Signalized	Delay (sec / veh):	17.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.394

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	1	0
Entry Pocket Length [ft]	100.00	126.00	218.00	100.00	122.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	3280.00	0.00	0.00
Speed [mph]	40.00		40.00		35.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Clearwater Pkwy	
Base Volume Input [veh/h]	460	325	108	262	364	100
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	30	0	2	26	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	490	325	110	288	364	103
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	129	86	29	76	96	27
Total Analysis Volume [veh/h]	516	342	116	303	383	108
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	2.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Split
Signal Group	6	0	5	2	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	10	0	5	10	5	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	42	0	14	56	29	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	31	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
Minimum Recall	No		No	No	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	54	54	7	65	12	12
g / C, Green / Cycle	0.63	0.63	0.08	0.76	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.14	0.21	0.06	0.08	0.11	0.07
s, saturation flow rate [veh/h]	3618	1615	1810	3618	3514	1615
c, Capacity [veh/h]	2290	1022	149	2758	504	232
d1, Uniform Delay [s]	6.68	7.26	38.27	2.62	35.02	33.44
k, delay calibration	0.50	0.50	0.11	0.50	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	0.88	8.45	0.08	2.39	1.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.23	0.33	0.78	0.11	0.76	0.47
d, Delay for Lane Group [s/veh]	6.91	8.15	46.72	2.70	37.41	34.90
Lane Group LOS	A	A	D	A	D	C
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.67	2.55	2.62	0.41	3.85	2.08
50th-Percentile Queue Length [ft/ln]	41.77	63.87	65.60	10.14	96.21	51.90
95th-Percentile Queue Length [veh/ln]	3.01	4.60	4.72	0.73	6.93	3.74
95th-Percentile Queue Length [ft/ln]	75.18	114.96	118.09	18.25	173.18	93.43

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	6.91	8.15	46.72	2.70	37.41	34.90
Movement LOS	A	A	D	A	D	C
d_A, Approach Delay [s/veh]	7.40		14.89		36.85	
Approach LOS	A		B		D	
d_I, Intersection Delay [s/veh]	17.35					
Intersection LOS	B					
Intersection V/C	0.394					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	32.23
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.398
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	894	1223	588
d_b, Bicycle Delay [s]	13.01	6.42	21.19
I_b,int, Bicycle LOS Score for Intersection	2.267	1.905	1.560
Bicycle LOS	B	A	A

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: Cajun Blvd (NS) at Kendall Dr (EW)

Control Type:	Two-way stop	Delay (sec / veh):	30.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.120

Intersection Setup

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	1	0
Entry Pocket Length [ft]	100.00	100.00	215.00	100.00	92.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajun Blvd		Cajun Blvd		Kendall Dr	
Base Volume Input [veh/h]	349	10	270	192	18	227
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	14	0	6	12	0	6
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	363	10	276	204	18	233
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	96	3	73	54	5	61
Total Analysis Volume [veh/h]	382	11	291	215	19	245
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.25	0.00	0.12	0.37
d_M, Delay for Movement [s/veh]	0.00	0.00	9.06	0.00	30.74	13.54
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.98	0.00	0.40	1.70
95th-Percentile Queue Length [ft/ln]	0.00	0.00	24.43	0.00	9.97	42.38
d_A, Approach Delay [s/veh]	0.00		5.21		14.78	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.62					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 8: Project West Dwy (NS) at Cajun Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	24.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.021

Intersection Setup

Name	Project East Dwy		Cajun Blvd		Cajun Blvd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	3280.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project East Dwy		Cajun Blvd		Cajun Blvd	
Base Volume Input [veh/h]	0	0	512	0	0	802
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	4	26	82	33	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	3	13	3	4	13	3
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	17	541	86	46	806
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	4	142	23	12	212
Total Analysis Volume [veh/h]	4	18	569	91	48	848
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.03	0.01	0.00	0.05	0.01
d_M, Delay for Movement [s/veh]	24.44	10.76	0.00	0.00	9.05	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.15	0.15	0.00	0.00	0.16	0.00
95th-Percentile Queue Length [ft/ln]	3.77	3.77	0.00	0.00	4.04	0.00
d_A, Approach Delay [s/veh]	13.24		0.00		0.48	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.46					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 9: Project East Dwy (NS) Cajun Blvd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	23.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.093

Intersection Setup

Name	Project West Dwy		Cajun Blvd		Cajun Blvd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project West Dwy		Cajun Blvd		Cajun Blvd	
Base Volume Input [veh/h]	0	0	497	0	0	802
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	1	107	5	1	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	13	3	3	13	4	3
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	4	607	18	5	806
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	1	160	5	1	212
Total Analysis Volume [veh/h]	20	4	639	19	5	848
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.01	0.01	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	23.45	11.99	0.00	0.00	8.85	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.33	0.33	0.00	0.00	0.02	0.00
95th-Percentile Queue Length [ft/ln]	8.18	8.18	0.00	0.00	0.40	0.00
d_A, Approach Delay [s/veh]	21.54		0.00		0.05	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.37					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 10: Glen Helen Spur (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.148

Intersection Setup

Name	Glen Helen Spur		Glen Helen Spur		Project Dwy	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Spur		Glen Helen Spur		Project Dwy	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	14	0	0	108	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	32	0	0	33	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	46	0	0	141	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	12	0	0	37	0
Total Analysis Volume [veh/h]	0	48	0	0	148	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.15	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.29	0.00	9.24	9.03
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.52	0.52
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	13.01	13.01
d_A, Approach Delay [s/veh]	0.00		3.64		9.24	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	6.98					
Intersection LOS	A					

**YEAR 2040 WITHOUT PROJECT
WITH IMPROVEMENTS**

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 2: Devore Rd (NS) at I-215 SB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	24.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.963

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Base Volume Input [veh/h]	0	278	388	95	330	0	34	3	550	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	278	388	95	330	0	34	3	550	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	73	102	25	87	0	9	1	145	0	0	0
Total Analysis Volume [veh/h]	0	293	408	100	347	0	36	3	579	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	740	864	648	711	503	602	
Degree of Utilization, x	0.40	0.47	0.15	0.49	0.08	0.96	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.90	2.57	0.54	2.69	0.25	13.41	
95th-Percentile Queue Length [ft]	47.57	64.21	13.58	67.34	6.27	335.20	
Approach Delay [s/veh]	10.62		11.75		49.34		0.00
Approach LOS	B		B		E		A
Intersection Delay [s/veh]	24.46						
Intersection LOS	C						

Intersection Level Of Service Report**Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)**

Control Type:	Signalized	Delay (sec / veh):	43.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.628

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↵↵			↵↵			↵↵			↵↵		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	9	130	114	500	343	32	262	84	37	120	20	319
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	130	114	500	343	32	262	84	37	120	20	319
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	34	30	132	90	8	69	22	10	32	5	84
Total Analysis Volume [veh/h]	9	137	120	526	361	34	276	88	39	126	21	336
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lag	-	-	Lag	-	-	Lag	-	-	Lag	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	20	38	0	26	44	0	9	42	0	9	42	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	27	0	0	33	0	0	31	0	0	26	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1	34	34	19	52	20	10	10	36	26	26
g / C, Green / Cycle	0.01	0.29	0.29	0.17	0.45	0.17	0.09	0.09	0.31	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.00	0.07	0.07	0.15	0.21	0.15	0.03	0.04	0.07	0.01	0.21
s, saturation flow rate [veh/h]	1810	1900	1615	3514	1872	1810	1900	1708	1810	1900	1615
c, Capacity [veh/h]	21	555	472	594	841	309	164	147	568	435	370
d1, Uniform Delay [s]	56.46	31.09	31.16	46.71	22.12	46.68	49.78	49.85	29.13	34.59	43.19
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.13	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	12.44	1.06	1.30	4.62	1.88	10.50	1.59	1.87	0.20	0.05	8.64
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.25	0.25	0.88	0.47	0.89	0.40	0.42	0.22	0.05	0.91
d, Delay for Lane Group [s/veh]	68.90	32.15	32.46	51.33	24.00	57.18	51.37	51.72	29.33	34.63	51.83
Lane Group LOS	E	C	C	D	C	E	D	D	C	C	D
Critical Lane Group	No	No	Yes	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.33	3.01	2.67	7.56	7.57	8.52	1.85	1.73	2.58	0.46	10.02
50th-Percentile Queue Length [ft/ln]	8.25	75.25	66.73	189.07	189.27	212.91	46.26	43.36	64.47	11.57	250.60
95th-Percentile Queue Length [veh/ln]	0.59	5.42	4.80	12.07	12.08	13.30	3.33	3.12	4.64	0.83	15.22
95th-Percentile Queue Length [ft/ln]	14.84	135.44	120.11	301.82	302.08	332.56	83.26	78.06	116.04	20.82	380.41

Movement, Approach, & Intersection Results

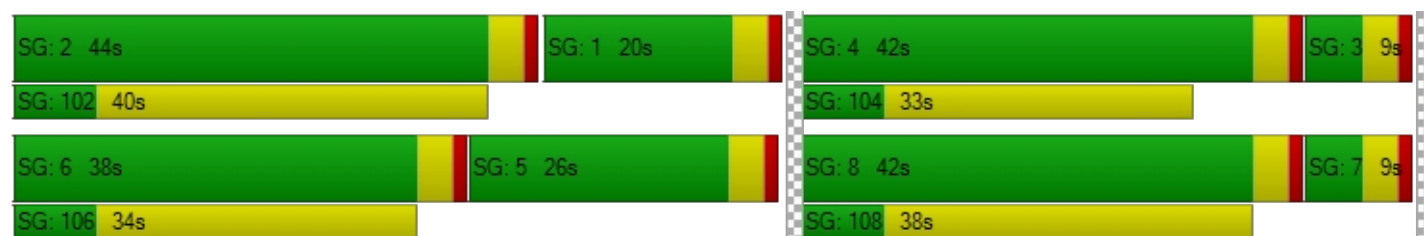
d_M, Delay for Movement [s/veh]	68.90	32.15	32.46	51.33	24.00	24.00	57.18	51.46	51.72	29.33	34.63	51.83
Movement LOS	E	C	C	D	C	C	E	D	D	C	C	D
d_A, Approach Delay [s/veh]	33.53			39.61			55.40			45.21		
Approach LOS	C			D			E			D		
d_I, Intersection Delay [s/veh]	43.20											
Intersection LOS	D											
Intersection V/C	0.628											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0			11.0			11.0			11.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	47.05			47.05			47.05			47.05		
I_p,int, Pedestrian LOS Score for Intersection	2.518			2.686			2.418			2.588		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	591			695			661			661		
d_b, Bicycle Delay [s]	28.54			24.47			25.80			25.80		
I_b,int, Bicycle LOS Score for Intersection	1.999			3.079			1.892			1.958		
Bicycle LOS	A			C			A			A		

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report**Intersection 4: Glen Helen Pkwy (NS) at Glen Helen Spur (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Base Volume Input [veh/h]	221	0	0	470	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	221	0	0	470	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	58	0	0	124	0	0
Total Analysis Volume [veh/h]	233	0	0	495	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.67	0.00	11.93	8.91
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.42	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

PM PEAK HOUR

Intersection Level Of Service Report
Intersection 2: Devore Rd (NS) at I-215 SB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	19.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.874

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Base Volume Input [veh/h]	0	437	332	105	262	0	124	13	493	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	437	332	105	262	0	124	13	493	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	115	87	28	69	0	33	3	130	0	0	0
Total Analysis Volume [veh/h]	0	460	349	111	276	0	131	14	519	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	745	872	635	696	499	593	
Degree of Utilization, x	0.62	0.40	0.17	0.40	0.29	0.87	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.31	1.94	0.63	1.90	1.20	10.05	
95th-Percentile Queue Length [ft]	107.77	48.59	15.74	47.55	29.94	251.15	
Approach Delay [s/veh]	12.64		10.75		31.67		0.00
Approach LOS	B		B		D		A
Intersection Delay [s/veh]	19.04						
Intersection LOS	C						

Intersection Level Of Service Report**Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)**

Control Type:	Signalized	Delay (sec / veh):	37.6
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.706

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↵↵			↵↵			↵↵			↵↵		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	204	225	165	331	98	251	227	77	67	154	201	468
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	204	225	165	331	98	251	227	77	67	154	201	468
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	59	43	87	26	66	60	20	18	41	53	123
Total Analysis Volume [veh/h]	215	237	174	348	103	264	239	81	71	162	212	493
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lag	-	-	Lag	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	48	0	0	48	0	9	44	0	18	53	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	37	0	0	10	0	0	31	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	45	45	45	45	45	16	10	10	43	36	36
g / C, Green / Cycle	0.41	0.41	0.41	0.41	0.41	0.15	0.09	0.09	0.39	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.21	0.12	0.11	0.18	0.22	0.13	0.04	0.04	0.09	0.11	0.31
s, saturation flow rate [veh/h]	1031	1900	1615	1923	1686	1810	1900	1618	1810	1900	1615
c, Capacity [veh/h]	306	786	668	666	697	269	172	147	700	625	531
d1, Uniform Delay [s]	40.86	21.61	21.20	31.75	24.18	45.93	47.45	47.57	22.72	27.88	35.65
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.23
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	12.72	0.99	0.95	2.92	2.83	9.74	1.94	2.52	0.17	0.32	14.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.70	0.30	0.26	0.52	0.53	0.89	0.46	0.49	0.23	0.34	0.93
d, Delay for Lane Group [s/veh]	53.58	22.59	22.14	34.67	27.01	55.67	49.39	50.09	22.89	28.20	49.79
Lane Group LOS	D	C	C	C	C	E	D	D	C	C	D
Critical Lane Group	No	No	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.54	4.16	3.02	4.02	7.39	7.03	2.15	1.96	2.81	4.21	14.43
50th-Percentile Queue Length [ft/ln]	163.48	104.10	75.49	100.62	184.74	175.85	53.86	49.04	70.27	105.13	360.68
95th-Percentile Queue Length [veh/ln]	10.73	7.50	5.44	7.24	11.85	11.38	3.88	3.53	5.06	7.57	20.66
95th-Percentile Queue Length [ft/ln]	268.32	187.38	135.88	181.12	296.19	284.59	96.95	88.27	126.49	189.20	516.41

Movement, Approach, & Intersection Results

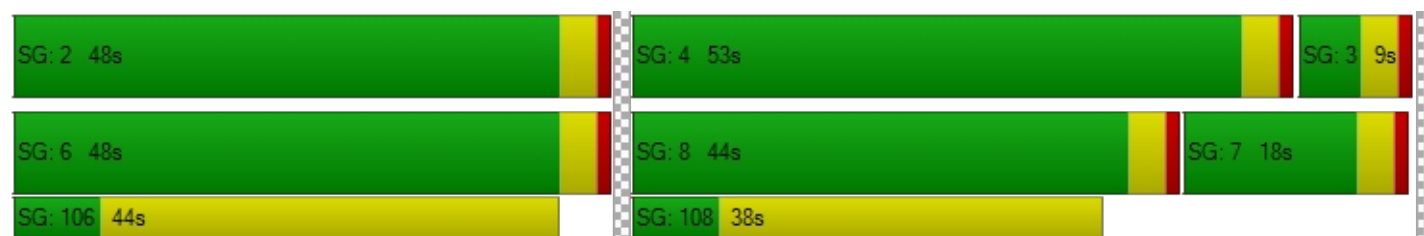
d_M, Delay for Movement [s/veh]	53.58	22.59	22.14	34.67	27.01	27.01	55.67	49.40	50.09	22.89	28.20	49.79
Movement LOS	D	C	C	C	C	C	E	D	D	C	C	D
d_A, Approach Delay [s/veh]	33.11			30.74			53.36			39.49		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	37.63											
Intersection LOS	D											
Intersection V/C	0.706											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0			0.0			0.0			11.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	44.54			0.00			0.00			44.54		
I_p,int, Pedestrian LOS Score for Intersection	2.560			0.000			0.000			3.139		
Crosswalk LOS	B			F			F			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	800			800			727			891		
d_b, Bicycle Delay [s]	19.79			19.79			22.27			16.91		
I_b,int, Bicycle LOS Score for Intersection	2.593			2.739			1.882			2.275		
Bicycle LOS	B			B			A			B		

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report**Intersection 4: Glen Helen Pkwy (NS) at Glen Helen Spur (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Base Volume Input [veh/h]	560	0	0	320	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	560	0	0	320	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	147	0	0	84	0	0
Total Analysis Volume [veh/h]	589	0	0	337	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	8.61	0.00	15.36	10.09
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		12.72	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

**YEAR 2040 WITH PROJECT
WITH IMPROVEMENTS**

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 2: Devore Rd (NS) at I-215 SB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	31.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.037

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Base Volume Input [veh/h]	0	278	388	95	330	0	34	3	550	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	31	27	0	30	0	0	0	28	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	309	415	95	360	0	34	3	578	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	81	109	25	95	0	9	1	152	0	0	0
Total Analysis Volume [veh/h]	0	325	437	100	379	0	36	3	608	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	735	857	641	703	493	608	
Degree of Utilization, x	0.44	0.51	0.16	0.54	0.08	1.04	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.28	2.95	0.55	3.25	0.26	16.50	
95th-Percentile Queue Length [ft]	56.94	73.82	13.77	81.32	6.42	412.62	
Approach Delay [s/veh]	11.29		12.77		67.59		0.00
Approach LOS	B		B		F		A
Intersection Delay [s/veh]	30.96						
Intersection LOS	D						

Intersection Level Of Service Report**Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)**

Control Type:	Signalized	Delay (sec / veh):	43.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.679

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↵↵↵			↵↵↵			↵↵↵			↵↵↵		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	9	130	114	500	343	32	262	84	37	120	20	319
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	54	46	51	7	0	0	1	0	0	1	4
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	184	160	551	350	32	262	85	37	120	21	323
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	48	42	145	92	8	69	22	10	32	6	85
Total Analysis Volume [veh/h]	9	194	168	580	368	34	276	89	39	126	22	340
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lag	-	-	Lag	-	-	Lag	-	-	Lag	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	20	38	0	26	44	0	9	42	0	9	42	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	27	0	0	33	0	0	31	0	0	26	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
C, Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1	32	32	21	51	20	10	10	36	27	27
g / C, Green / Cycle	0.01	0.28	0.28	0.18	0.45	0.17	0.09	0.09	0.32	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.00	0.10	0.10	0.17	0.21	0.15	0.03	0.04	0.07	0.01	0.21
s, saturation flow rate [veh/h]	1810	1900	1615	3514	1872	1810	1900	1709	1810	1900	1615
c, Capacity [veh/h]	21	525	446	641	836	309	164	147	572	440	374
d1, Uniform Delay [s]	56.46	33.56	33.63	46.07	22.42	46.69	49.79	49.85	28.93	34.38	43.05
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.14	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	12.44	2.00	2.41	5.16	1.97	10.77	1.61	1.89	0.19	0.05	8.62
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.37	0.38	0.91	0.48	0.89	0.40	0.42	0.22	0.05	0.91
d, Delay for Lane Group [s/veh]	68.90	35.56	36.05	51.23	24.40	57.45	51.40	51.75	29.12	34.43	51.67
Lane Group LOS	E	D	D	D	C	E	D	D	C	C	D
Critical Lane Group	No	No	Yes	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.33	4.56	4.01	8.38	7.79	8.54	1.87	1.75	2.57	0.48	10.14
50th-Percentile Queue Length [ft/ln]	8.25	114.11	100.20	209.44	194.77	213.49	46.63	43.73	64.20	12.08	253.38
95th-Percentile Queue Length [veh/ln]	0.59	8.07	7.21	13.12	12.37	13.33	3.36	3.15	4.62	0.87	15.36
95th-Percentile Queue Length [ft/ln]	14.84	201.71	180.36	328.11	309.21	333.30	83.93	78.72	115.55	21.74	383.91

Movement, Approach, & Intersection Results

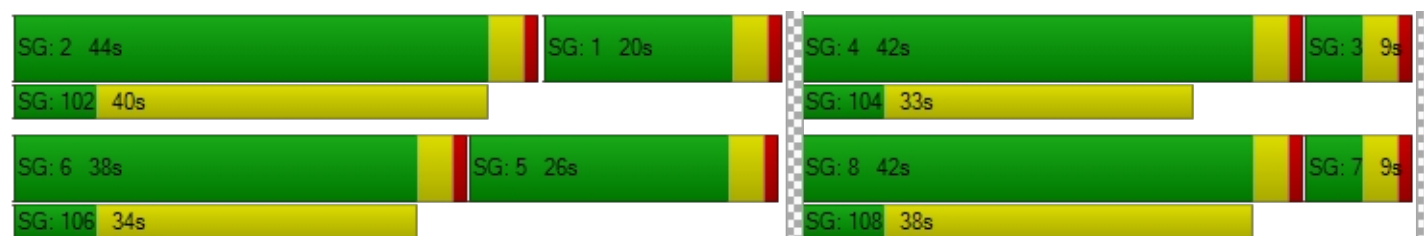
d_M, Delay for Movement [s/veh]	68.90	35.56	36.05	51.23	24.40	24.40	57.45	51.49	51.75	29.12	34.43	51.67
Movement LOS	E	D	D	D	C	C	E	D	D	C	C	D
d_A, Approach Delay [s/veh]	36.59			40.25			55.59			45.07		
Approach LOS	D			D			E			D		
d_I, Intersection Delay [s/veh]	43.45											
Intersection LOS	D											
Intersection V/C	0.679											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0			11.0			11.0			11.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	47.05			47.05			47.05			47.05		
I_p,int, Pedestrian LOS Score for Intersection	2.547			2.725			2.418			2.613		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	591			695			661			661		
d_b, Bicycle Delay [s]	28.54			24.47			25.80			25.80		
I_b,int, Bicycle LOS Score for Intersection	2.172			3.180			1.893			1.962		
Bicycle LOS	B			C			A			A		

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report**Intersection 4: Glen Helen Pkwy (NS) at Glen Helen Spur (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	14.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.092

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Base Volume Input [veh/h]	221	0	0	470	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	23	4	7	0	27	77
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	12	18	0	13	17
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	244	16	25	470	40	94
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	64	4	7	124	11	25
Total Analysis Volume [veh/h]	257	17	26	495	42	99
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.09	0.11
d_M, Delay for Movement [s/veh]	0.00	0.00	7.82	0.00	14.19	10.28
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.06	0.00	0.75	0.75
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.53	0.00	18.73	18.73
d_A, Approach Delay [s/veh]	0.00		0.39		11.44	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.94					
Intersection LOS	B					

PM PEAK HOUR

Intersection Level Of Service Report
Intersection 2: Devore Rd (NS) at I-215 SB Ramps (EW)

Control Type:	All-way stop	Delay (sec / veh):	23.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.956

Intersection Setup

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	215.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Devore Rd			Devore Rd			I-215 SB Ramps			I-215 SB Ramps		
Base Volume Input [veh/h]	0	437	332	105	262	0	124	13	493	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	31	30	0	35	0	0	0	32	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	468	362	105	297	0	124	13	525	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	123	95	28	78	0	33	3	138	0	0	0
Total Analysis Volume [veh/h]	0	493	381	111	313	0	131	14	553	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	740	864	627	686	488	578	
Degree of Utilization, x	0.67	0.44	0.18	0.46	0.30	0.96	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	5.14	2.28	0.64	2.39	1.23	12.91	
95th-Percentile Queue Length [ft]	128.42	56.99	16.00	59.87	30.85	322.64	
Approach Delay [s/veh]	13.84		11.60		43.75		0.00
Approach LOS	B		B		E		A
Intersection Delay [s/veh]	23.82						
Intersection LOS	C						

Intersection Level Of Service Report**Intersection 3: Glen Helen Pkwy (NS) at Cajun Blvd (EW)**

Control Type:	Signalized	Delay (sec / veh):	39.1
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.731

Intersection Setup

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↵↵↵			↵↵↵			↵↵↵			↵↵↵		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	193.00	100.00	100.00	173.00	100.00	100.00	278.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	Glen Helen Pkwy			Devore Rd			Cajun Blvd			Cajun Blvd		
Base Volume Input [veh/h]	204	225	165	331	98	251	227	77	67	154	201	468
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	55	52	59	8	0	0	1	0	0	1	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	204	280	217	390	106	251	227	78	67	154	202	474
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	74	57	103	28	66	60	21	18	41	53	125
Total Analysis Volume [veh/h]	215	295	228	411	112	264	239	82	71	162	213	499
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lag	-	-	Lag	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	48	0	0	48	0	9	44	0	18	53	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	37	0	0	10	0	0	31	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	45	45	45	45	45	16	10	10	43	37	37
g / C, Green / Cycle	0.41	0.41	0.41	0.41	0.41	0.15	0.09	0.09	0.39	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.21	0.16	0.14	0.24	0.22	0.13	0.04	0.04	0.09	0.11	0.31
s, saturation flow rate [veh/h]	1023	1900	1615	1734	1691	1810	1900	1620	1810	1900	1615
c, Capacity [veh/h]	295	779	662	558	693	268	173	147	706	632	537
d1, Uniform Delay [s]	41.91	22.66	22.28	36.93	24.61	45.95	47.47	47.58	22.47	27.59	35.45
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.24
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	14.70	1.40	1.42	8.40	3.03	9.82	1.96	2.54	0.16	0.31	14.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.38	0.34	0.74	0.54	0.89	0.47	0.49	0.23	0.34	0.93
d, Delay for Lane Group [s/veh]	56.61	24.06	23.70	45.34	27.65	55.77	49.42	50.12	22.63	27.90	49.88
Lane Group LOS	E	C	C	D	C	E	D	D	C	C	D
Critical Lane Group	No	No	No	Yes	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.75	5.43	4.16	5.64	7.69	7.04	2.17	1.98	2.79	4.20	14.63
50th-Percentile Queue Length [ft/ln]	168.70	135.82	104.02	141.09	192.17	176.02	54.23	49.40	69.80	105.00	365.75
95th-Percentile Queue Length [veh/ln]	11.01	9.26	7.49	9.54	12.23	11.39	3.90	3.56	5.03	7.56	20.90
95th-Percentile Queue Length [ft/ln]	275.20	231.39	187.24	238.49	305.85	284.81	97.61	88.92	125.63	188.99	522.58

Movement, Approach, & Intersection Results

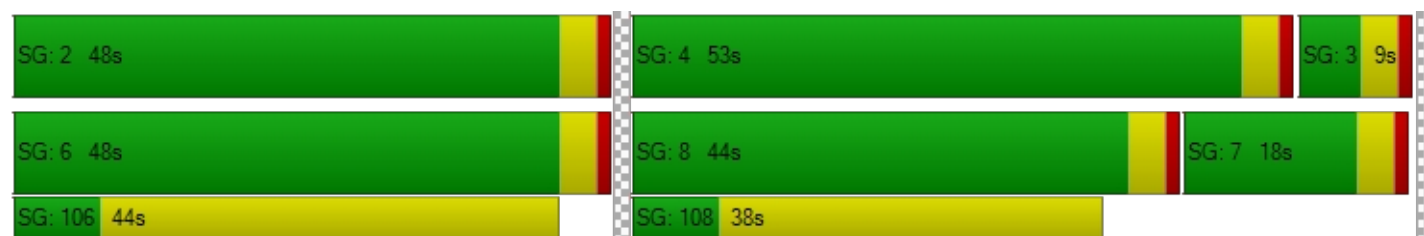
d_M, Delay for Movement [s/veh]	56.61	24.06	23.70	45.34	27.65	27.65	55.77	49.44	50.12	22.63	27.90	49.88
Movement LOS	E	C	C	D	C	C	E	D	D	C	C	D
d_A, Approach Delay [s/veh]	33.43			36.88			53.42			39.48		
Approach LOS	C			D			D			D		
d_I, Intersection Delay [s/veh]	39.11											
Intersection LOS	D											
Intersection V/C	0.731											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0			0.0			0.0			11.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	44.54			0.00			0.00			44.54		
I_p,int, Pedestrian LOS Score for Intersectio	2.591			0.000			0.000			3.257		
Crosswalk LOS	B			F			F			C		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	800			800			727			891		
d_b, Bicycle Delay [s]	19.79			19.79			22.27			16.91		
I_b,int, Bicycle LOS Score for Intersection	2.777			2.858			1.883			2.281		
Bicycle LOS	C			C			A			B		

Sequence

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report**Intersection 4: Glen Helen Pkwy (NS) at Glen Helen Spur (EW)**

Control Type:	Two-way stop	Delay (sec / veh):	20.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.146

Intersection Setup

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Glen Helen Pkwy		Glen Helen Pkwy		Glen Helen Spur	
Base Volume Input [veh/h]	560	0	0	320	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	27	6	8	0	28	80
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	12	21	0	13	19
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	587	18	29	320	41	99
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	154	5	8	84	11	26
Total Analysis Volume [veh/h]	618	19	31	337	43	104
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.03	0.00	0.15	0.15
d_M, Delay for Movement [s/veh]	0.00	0.00	8.89	0.00	20.26	13.22
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.10	0.00	1.23	1.23
95th-Percentile Queue Length [ft/ln]	0.00	0.00	2.51	0.00	30.70	30.70
d_A, Approach Delay [s/veh]	0.00		0.75		15.28	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.19					
Intersection LOS	C					

APPENDIX E

POST PROCESSING WORKSHEETS

AVERAGE DAILY TRAFFIC

ID	INTERSECTION	LEG	MODEL 2016 ADT	EXISTING 2023 ADT	MODEL 2040 ADT	FUTURE 2040 ADT ¹	ADJUSTED BUILDOUT ADT ²
1	Glen Helen Parkway at: I-215 NB Ramps	North	1,708	5,700	3,802	7,180	7,180
		South	1,737	6,800	4,407	8,690	9,070
		East	915	2,900	1,266	3,150	3,760
		West	337	2,900	1,765	3,910	3,910
2	Glen Helen Parkway at: I-215 SB Ramps	North	1,737	6,300	4,407	8,190	8,560
		South	5,894	9,600	13,802	13,800	13,800
		East	3,186	1,800	5,579	5,580	5,580
		West	971	6,100	3,816	8,120	8,120
3	Glen Helen Parkway at: Cajon Boulevard	North	5,894	9,300	13,802	13,800	13,800
		South	2,545	5,300	7,224	7,220	7,920
		East	1,848	9,800	7,443	13,760	13,760
		West	3,743	7,000	6,215	8,750	8,750
4	Glen Helen Parkway at: Glen Helen Spur	North	2,545	5,300	7,224	7,950	7,950
		South	2,545	5,300	7,224	7,950	7,950
		East	-	-	-	-	-
		West	-	-	-	-	-
5	Glen Helen Parkway at: Glen Helen Road	North	2,728	5,300	8,075	8,880	8,880
		South	2,031	5,300	8,294	9,120	9,120
		East	-	-	-	-	-
		West	-	-	-	-	1,700
6	Glen Helen Parkway at: Clearwater Parkway	North	1,848	5,200	7,443	8,190	8,190
		South	411	9,900	2,960	11,710	12,110
		East	1,899	7,500	5,125	9,790	9,790
		West	-	-	-	-	-
7	Cajon Boulevard at: Kendall Drive	North	2,846	5,200	7,890	8,680	8,680
		South	1,639	9,900	2,728	10,670	12,030
		East	3,513	7,500	7,526	8,280	9,190
		West	-	-	-	-	-
8	Project North Drivew Driveway at: Cajon Boulevard	North	-	-	-	-	-
		South	-	-	-	-	-
		East	-	-	-	-	3,360
		West	-	-	-	-	3,360
9	Project South Drivew Driveway at: Cajon Boulevard	North	-	-	-	-	-
		South	-	-	-	-	-
		East	-	-	-	-	3,360
		West	-	-	-	-	3,400
10	Project Driveway at: Glen Helen Spur	North	-	-	-	-	-
		South	-	-	-	-	-
		East	-	-	-	-	-
		West	-	-	-	-	-

Notes:

1. Future volumes adjusted for minimum 10% growth over existing average daily traffic volumes.
2. Future volumes adjusted for minimum 5% growth over opening year daily traffic volumes.

Glen Helen Parkway (NS) / I-215 NB Ramps (EW) - #1									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):				
2023					2023				
	71	158	0			72	130	0	
	<	v	>			<	v	>	
0	^			^ 113	0	^			^ 119
0	>			< 0	0	>			< 7
0	v			v 43	0	v			v 109
	<	^	>			<	^	>	
	35	82	0			98	157	0	
EXISTING PEAK HOUR COUNT YEAR (AUTOS):					EXISTING PEAK HOUR COUNT YEAR (AUTOS):				
2023					2023				
	229	195				202	276		
	v	^				v	^		
106	<	IN =	502	< 156	177	<	IN =	692	< 235
0	>	OUT =	502	> 0	0	>	OUT =	692	> 0
	v	^				v	^		
	201	117				239	255		
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCES):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCES):				
	10	17	0			0	10	0	
	<	v	>			<	v	>	
0	^			^ 10	0	^			^ 5
0	>			< 0	0	>			< 0
0	v			v 7	0	v			v 12
PCE FACTORS BY AXLE:					PCE FACTORS BY AXLE:				
2:	1.5	3:	2.0	4+: 3.0	2:	1.5	3:	2	4+: 3.0
	103	10	0			74	5	0	
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):				
2023					2023				
	81	175	0			72	140	0	
	<	v	>			<	v	>	
0	^			^ 123	0	^			^ 124
0	>			< 0	0	>			< 7
0	v			v 50	0	v			v 121
	<	^	>			<	^	>	
	138	92	0			172	162	0	
EXISTING PEAK PERIOD MODEL YEAR (AUTO):					EXISTING PEAK PERIOD MODEL YEAR (AUTO):				
2016					2016				
	223	119				174	422		
	v	^				v	^		
22	<	IN =	440	< 167	166	<	IN =	839	< 292
0	>	OUT =	440	> 0	0	>	OUT =	839	> 0
	v	^				v	^		
	299	50				251	373		
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):				
2016					2016				
	4	2				3	5		
	v	^				v	^		
2	<	IN =	12	< 5	3	<	IN =	14	< 6
0	>	OUT =	12	> 0	0	>	OUT =	14	> 0
	v	^				v	^		
	8	3				6	5		
EXISTING PEAK HOUR MODEL YEAR (PCES):					EXISTING PEAK HOUR MODEL YEAR (PCES):				
PHF FOR CARS: 0.38					PHF FOR CARS: 0.28				
	86	46				49	119		
	v	^				v	^		
9	<	IN =	171	< 65	47	<	IN =	238	< 83
0	>	OUT =	171	> 0	0	>	OUT =	238	> 0
	v	^				v	^		
	116	20				72	106		
FUTURE PEAK PERIOD MODEL YEAR (AUTO):					FUTURE PEAK PERIOD MODEL YEAR (AUTO):				
2040					2040				
	693	156				268	1046		
	v	^				v	^		
220	<	IN =	1051	< 235	712	<	IN =	2052	< 307
0	>	OUT =	1051	> 0	0	>	OUT =	2052	> 0
	v	^				v	^		
	675	123				294	1477		
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):				
2040					2040				
	101	4				5	51		
	v	^				v	^		
65	<	IN =	119	< 11	93	<	IN =	153	< 9
0	>	OUT =	119	> 0	0	>	OUT =	153	> 0
	v	^				v	^		
	50	7				9	139		
FUTURE PEAK HOUR MODEL YEAR (PCES):					FUTURE PEAK HOUR MODEL YEAR (PCES):				
PHF FOR CARS: 0.38					PHF FOR CARS: 0.28				
	297	61				76	306		
	v	^				v	^		
105	<	IN =	439	< 93	223	<	IN =	613	< 88
0	>	OUT =	439	> 0	0	>	OUT =	613	> 0
	v	^				v	^		
	273	49				85	448		

Glen Helen Parkway (NS) / I-215 NB Ramps (EW) - #1												
MORNING PEAK HOUR						EVENING PEAK HOUR						
RAW GROWTH (PCes):	2016	TO	2040			RAW GROWTH (PCes):	2016	TO	2040			
CONVERSION OF TRUCKS TO:			2040	211	15	CONVERSION OF TRUCKS TO:			2040	27	186	
FACTOR =	1.00			v	^	FACTOR =	1.00			v	^	
			96	<					175	<		< 5
			0	>					0	>		> 0
				v	^					v	^	
				157	29					13	343	
ADJUSTED GROWTH (PCes):	2016	TO	2040			ADJUSTED GROWTH (PCes):	2016	TO	2040			
10.00 MINIMUM GROWTH %				210	20	10 MINIMUM GROWTH %				30	190	
				v	^					v	^	
			100	<	IN =	270			180	<	IN =	400
			0	>	OUT =	280			0	>	OUT =	380
				v	^					v	^	
				160	30					10	340	
PRORATED GROWTH (PCes):	2023	TO	2040			PRORATED GROWTH (PCes):	2023	TO	2040			
17 YEARS				150	10	17 YEARS				20	130	
				v	^					v	^	
			70	<					130	<		< 20
			0	>					0	>		> 0
				v	^					v	^	
				110	20					10	240	
NEW PROJECTED VOLUMES (PCes):	2040			410	230	NEW PROJECTED VOLUMES (PCes):	2040			230	420	
				v	^					v	^	
			290	<					380	<		< 270
			0	>					0	>		> 0
				v	^					v	^	
				340	250					270	570	
YEAR 2025 GROWTH:	2023	TO	2025			YEAR 2025 GROWTH:	2023	TO	2025			
2 YEARS				20	0	2 YEARS				0	20	
				v	^					v	^	
			10	<					20	<		< 0
			0	>					0	>		> 0
				v	^					v	^	
				10	0					0	30	
INITIAL YEAR 2025 VOLUMES:	2025			280	220	INITIAL YEAR 2025 VOLUMES:	2025			210	310	
				v	^					v	^	
			230	<	IN =	680			270	<	IN =	820
			0	>	OUT =	690			0	>	OUT =	840
				v	^					v	^	
				240	230					260	360	
BALANCED YEAR 2025 VOLUMES:	2025			280	220	BALANCED YEAR 2025 VOLUMES:	2025			220	310	
				v	^					v	^	
			230	<	IN =	680			270	<	IN =	850
			0	>	OUT =	690			0	>	OUT =	840
				v	^					v	^	
				240	230					260	370	
ADT BY LEG:	2040			7,180		ADT BY LEG:	2040			7,180		
				N						N		
		3,910	W	LEG	E			3,910	W	LEG	E	3,150
				S						S		
				8,690						8,690		
ADT BY LEG:	2025			5,870		ADT BY LEG:	2025			5,870		
				N						N		
		3,020	W	LEG	E			3,020	W	LEG	E	2,930
				S						S		
				7,020						7,020		

Glen Helen Parkway (NS) / I-215 SB Ramps (EW) - #2									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):				
2023					2023				
		0	90	76		0	148	74	
		<	v	>		<	v	>	
	22	^		^ 0		107	^		^ 0
	3	>		< 0		2	>		< 0
	94	v		v 0		275	v		v 0
		<	^	>			<	^	>
		0	62	147			3	136	61
EXISTING PEAK HOUR COUNT YEAR (AUTOS):					EXISTING PEAK HOUR COUNT YEAR (AUTOS):				
2023					2023				
			166	84			222	243	
			v	^			v	^	
	0	<	IN =	494 < 0		3	<	IN =	806 < 0
	119	>	OUT =	494 > 226		384	>	OUT =	806 > 137
			v	^			v	^	
			184	209			423	200	
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCES):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCES):				
		0	30	10		0	24	5	
		<	v	>		<	v	>	
	9	^		^ 0		6	^		^ 0
	0	>		< 0		6	>		< 0
	76	v		v 0		132	v		v 0
PCE FACTORS BY AXLE:					PCE FACTORS BY AXLE:				
2:	1.5	3:	2.0	4+: 3.0	2:	1.5	3:	2	4+: 3.0
			0	141 44			0	45	10
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):				
2023					2023				
		0	120	86		0	172	79	
		<	v	>		<	v	>	
	31	^		^ 0		113	^		^ 0
	3	>		< 0		8	>		< 0
	170	v		v 0		407	v		v 0
		<	^	>			<	^	>
		0	203	191			3	181	71
EXISTING PEAK PERIOD MODEL YEAR (AUTO):					EXISTING PEAK PERIOD MODEL YEAR (AUTO):				
2016					2016				
			299	50			251	373	
			v	^			v	^	
	0	<	IN =	686 < 0		0	<	IN =	1081 < 0
	360	>	OUT =	686 > 591		36	>	OUT =	1081 > 398
			v	^			v	^	
			45	27			310	794	
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):				
2016					2016				
			8	3			6	5	
			v	^			v	^	
	0	<	IN =	24 < 0		0	<	IN =	47 < 0
	13	>	OUT =	24 > 19		2	>	OUT =	47 > 18
			v	^			v	^	
			2	3			24	39	
EXISTING PEAK HOUR MODEL YEAR (PCES):					EXISTING PEAK HOUR MODEL YEAR (PCES):				
PHF FOR CARS: 0.38					PHF FOR CARS: 0.28				
			116	20			72	106	
			v	^			v	^	
	0	<	IN =	269 < 0		0	<	IN =	314 < 0
	141	>	OUT =	269 > 231		11	>	OUT =	314 > 116
			v	^			v	^	
			18	11			93	232	
FUTURE PEAK PERIOD MODEL YEAR (AUTO):					FUTURE PEAK PERIOD MODEL YEAR (AUTO):				
2040					2040				
			675	123			294	1477	
			v	^			v	^	
	0	<	IN =	3062 < 0		0	<	IN =	3775 < 0
	1355	>	OUT =	3062 > 909		190	>	OUT =	3775 > 1814
			v	^			v	^	
			2030	1032			484	3291	
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):				
2040					2040				
			50	7			9	139	
			v	^			v	^	
	0	<	IN =	436 < 0		0	<	IN =	211 < 0
	168	>	OUT =	436 > 211		5	>	OUT =	211 > 58
			v	^			v	^	
			218	218			14	197	
FUTURE PEAK HOUR MODEL YEAR (PCES):					FUTURE PEAK HOUR MODEL YEAR (PCES):				
PHF FOR CARS: 0.38					PHF FOR CARS: 0.28				
			273	49			85	448	
			v	^			v	^	
	0	<	IN =	1309 < 0		0	<	IN =	1110 < 0
	571	>	OUT =	1309 > 416		54	>	OUT =	1110 > 522
			v	^			v	^	
			844	465			139	971	

Glen Helen Parkway (NS) / Cajon Boulevard (EW) - #3												
MORNING PEAK HOUR						EVENING PEAK HOUR						
RAW GROWTH (PCes):	2016	TO	2040			RAW GROWTH (PCes):	2016	TO	2040			
CONVERSION OF TRUCKS TO:			2040	833	447	CONVERSION OF TRUCKS TO:			2040	-93	878	
FACTOR =	1.00			v	^	FACTOR =	1.00			v	^	
				19	<					-274	<	< 318
				154	>					376	>	> 165
										v	^	
				373						209		376
ADJUSTED GROWTH (PCes):	2016	TO	2040	830	450	ADJUSTED GROWTH (PCes):	2016	TO	2040	50	880	
10.00 MINIMUM GROWTH %				v	^	10 MINIMUM GROWTH %				v	^	
				20	<	IN =				50	<	IN = 1130 < 320
				150	>	OUT =				380	>	OUT = 1310 > 170
										v	^	
				370						210		380
PRORATED GROWTH (PCes):	2023	TO	2040	590	320	PRORATED GROWTH (PCes):	2023	TO	2040	40	620	
17 YEARS				v	^	17 YEARS				v	^	
				10	<					40	<	< 230
				110	>					270	>	> 120
										v	^	
				260						150		270
NEW PROJECTED VOLUMES (PCes):	2040			880	710	NEW PROJECTED VOLUMES (PCes):	2040			550	920	
				v	^					v	^	
				40	<					570	<	< 710
				340	>					350	>	> 490
										v	^	
				470						320		560
YEAR 2025 GROWTH:	2023	TO	2025	70	40	YEAR 2025 GROWTH:	2023	TO	2025	0	70	
2 YEARS				v	^	2 YEARS				v	^	
				0	<					0	<	< 30
				10	>					30	>	> 10
										v	^	
				30						20		30
INITIAL YEAR 2025 VOLUMES:	2025			360	430	INITIAL YEAR 2025 VOLUMES:	2025			510	370	
				v	^					v	^	
				30	<	IN =				530	<	IN = 1450 < 510
				240	>	OUT =				110	>	OUT = 1470 > 380
										v	^	
				240						190		320
BALANCED YEAR 2025 VOLUMES:	2025			360	430	BALANCED YEAR 2025 VOLUMES:	2025			520	370	
				v	^					v	^	
				30	<	IN =				530	<	IN = 1470 < 520
				240	>	OUT =				110	>	OUT = 1470 > 380
										v	^	
				240						190		320
ADT BY LEG:	2040			13,800		ADT BY LEG:	2040			13,800		
				N						N		
		8,750	W	LEG	E			8,750	W	LEG	E	13,760
				S						S		
				7,220						7,220		
ADT BY LEG:	2025			9,960		ADT BY LEG:	2025			9,960		
				N						N		
		7,210	W	LEG	E			7,210	W	LEG	E	10,270
				S						S		
				5,690						5,690		

Glen Helen Parkway (NS) / Glen Helen Spur (EW) - #4									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):				
2023					2023				
	0	153	1			0	143	0	
	<	v	>			<	v	>	
0	^			^ 0	0	^			^ 0
0	>			< 0	0	>			< 0
0	v			v 0	0	v			v 0
	<	^	>			<	^	>	
	0	132	0			0	245	0	
EXISTING PEAK HOUR COUNT YEAR (AUTOS):					EXISTING PEAK HOUR COUNT YEAR (AUTOS):				
2023					2023				
		154	132				143	245	
		v	^				v	^	
0	<	IN =	286	< 0	0	<	IN =	388	< 0
0	>	OUT =	286	> 1	0	>	OUT =	388	> 0
		v	^				v	^	
		153	132				143	245	
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCES):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCES):				
	0	58	0			0	27	0	
	<	v	>			<	v	>	
0	^			^ 0	0	^			^ 0
0	>			< 0	0	>			< 0
0	v			v 0	0	v			v 0
PCE FACTORS BY AXLE:					PCE FACTORS BY AXLE:				
2:	1.5	3:	2.0	4+: 3.0	2:	1.5	3:	2	4+: 3.0
		0	39	0			0	45	0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):				
2023					2023				
	0	211	1			0	170	0	
	<	v	>			<	v	>	
0	^			^ 0	0	^			^ 0
0	>			< 0	0	>			< 0
0	v			v 0	0	v			v 0
	<	^	>			<	^	>	
	0	171	0			0	290	0	
EXISTING PEAK PERIOD MODEL YEAR (AUTO):					EXISTING PEAK PERIOD MODEL YEAR (AUTO):				
2016					2016				
		565	27				310	890	
		v	^				v	^	
0	<	IN =	592	< 0	0	<	IN =	1200	< 0
0	>	OUT =	592	> 0	0	>	OUT =	1200	> 0
		v	^				v	^	
		565	27				310	890	
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):				
2016					2016				
		19	3				17	24	
		v	^				v	^	
0	<	IN =	22	< 0	0	<	IN =	41	< 0
0	>	OUT =	22	> 0	0	>	OUT =	41	> 0
		v	^				v	^	
		19	3				17	24	
EXISTING PEAK HOUR MODEL YEAR (PCES):					EXISTING PEAK HOUR MODEL YEAR (PCES):				
PHF FOR CARS: 0.38					PHF FOR CARS: 0.28				
		221	11				91	255	
		v	^				v	^	
0	<	IN =	232	< 0	0	<	IN =	346	< 0
0	>	OUT =	232	> 0	0	>	OUT =	346	> 0
		v	^				v	^	
		221	11				91	255	
FUTURE PEAK PERIOD MODEL YEAR (AUTO):					FUTURE PEAK PERIOD MODEL YEAR (AUTO):				
2040					2040				
		1362	82				1036	2090	
		v	^				v	^	
0	<	IN =	1444	< 0	0	<	IN =	3126	< 0
0	>	OUT =	1444	> 0	0	>	OUT =	3126	> 0
		v	^				v	^	
		1362	82				1036	2090	
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):				
2040					2040				
		230	8				39	185	
		v	^				v	^	
0	<	IN =	238	< 0	0	<	IN =	224	< 0
0	>	OUT =	238	> 0	0	>	OUT =	224	> 0
		v	^				v	^	
		230	8				39	185	
FUTURE PEAK HOUR MODEL YEAR (PCES):					FUTURE PEAK HOUR MODEL YEAR (PCES):				
PHF FOR CARS: 0.38					PHF FOR CARS: 0.28				
		594	34				300	631	
		v	^				v	^	
0	<	IN =	628	< 0	0	<	IN =	931	< 0
0	>	OUT =	628	> 0	0	>	OUT =	931	> 0
		v	^				v	^	
		594	34				300	631	

Glen Helen Parkway (NS) / Glen Helen Spur (EW) - #4																
MORNING PEAK HOUR						EVENING PEAK HOUR										
RAW GROWTH (PCes):		2016	TO	2040		RAW GROWTH (PCes):		2016	TO	2040						
CONVERSION OF TRUCKS TO:				2040	373	23	CONVERSION OF TRUCKS TO:				209	376				
FACTOR =		1.00			v	^	FACTOR =		1.00		v	^				
				0	<	<	0				0	<	<	0		
				0	>	>	0				0	>	>	0		
					v	^					v	^				
					373	23					209	376				
ADJUSTED GROWTH (PCes):		2016	TO	2040		ADJUSTED GROWTH (PCes):		2016	TO	2040						
10.00 MINIMUM GROWTH %					370	20	10 MINIMUM GROWTH %				210	380				
					v	^					v	^				
				0	<	IN =	390	<	0		0	<	IN =	590	<	0
				0	>	OUT =	390	>	0		0	>	OUT =	590	>	0
					v	^					v	^				
					370	20					210	380				
PRORATED GROWTH (PCes):		2023	TO	2040		PRORATED GROWTH (PCes):		2023	TO	2040						
17 YEARS					260	10	17 YEARS				150	270				
					v	^					v	^				
				0	<		<	0			0	<		<	0	
				0	>		>	0			0	>		>	0	
					v	^					v	^				
					260	10					150	270				
NEW PROJECTED VOLUMES (PCes):		2040			470	180	NEW PROJECTED VOLUMES (PCes):		2040		320	560				
					v	^					v	^				
				0	<		<	0			0	<		<	0	
				0	>		>	0			0	>		>	0	
					v	^					v	^				
					470	180					320	560				
YEAR 2025 GROWTH:		2023	TO	2025		YEAR 2025 GROWTH:		2023	TO	2025						
2 YEARS					30	0	2 YEARS				20	30				
					v	^					v	^				
				0	<		<	0			0	<		<	0	
				0	>		>	0			0	>		>	0	
					v	^					v	^				
					30	0					20	30				
INITIAL YEAR 2025 VOLUMES:					240	170	INITIAL YEAR 2025 VOLUMES:				190	320				
2025					v	^					v	^				
				0	<	IN =	410	<	0		0	<	IN =	510	<	0
				0	>	OUT =	410	>	0		0	>	OUT =	510	>	0
					v	^					v	^				
					240	170					190	320				
BALANCED YEAR 2025 VOLUMES:					240	170	BALANCED YEAR 2025 VOLUMES:				190	320				
2025					v	^					v	^				
				0	<	IN =	410	<	0		0	<	IN =	510	<	0
				0	>	OUT =	410	>	0		0	>	OUT =	510	>	0
					v	^					v	^				
					240	170					190	320				
ADT BY LEG:					7,950		ADT BY LEG:				7,950					
2040					N		2040				N					
			0	W	LEG	E	0			0	W	LEG	E	0		
					S						S					
					7,950						7,950					
ADT BY LEG:					5,690		ADT BY LEG:				5,690					
2025					N		2025				N					
			0	W	LEG	E	0			0	W	LEG	E	0		
					S						S					
					5,690						5,690					

Clearwater Parkway (NS) / Glen Helen Parkway (EW) - #5									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):				
2023					2023				
	0	67	80			0	101	56	
	<	v	>			<	v	>	
0 ^				^ 59	0 ^				^ 59
0 >				< 0	0 >				< 0
0 v				v 407	0 v				v 292
	<	^	>			<	^	>	
	0	78	219			0	185	233	
EXISTING PEAK HOUR COUNT YEAR (AUTOS):					EXISTING PEAK HOUR COUNT YEAR (AUTOS):				
2023					2023				
	147	137				157	244		
	v	^				v	^		
0 <	IN =	910	<	466	0 <	IN =	926	<	351
0 >	OUT =	910	>	299	0 >	OUT =	926	>	289
	v	^				v	^		
	474	297				393	418		
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCES):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCES):				
2023					2023				
	0	52	18			0	16	2	
	<	v	>			<	v	>	
0 ^				^ 11	0 ^				^ 0
0 >				< 0	0 >				< 0
0 v				v 2	0 v				v 6
PCE FACTORS BY AXLE:					PCE FACTORS BY AXLE:				
2: 1.5	3: 2.0	4+: 3.0			2: 1.5	3: 2	4+: 3.0		
	0	34	3			0	30	2	
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):				
2023					2023				
	0	119	98			0	117	58	
	<	v	>			<	v	>	
0 ^				^ 70	0 ^				^ 59
0 >				< 0	0 >				< 0
0 v				v 409	0 v				v 298
	<	^	>			<	^	>	
	0	112	222			0	215	235	
EXISTING PEAK PERIOD MODEL YEAR (AUTO):					EXISTING PEAK PERIOD MODEL YEAR (AUTO):				
2016					2016				
	557	66				362	909		
	v	^				v	^		
0 <	IN =	812	<	111	0 <	IN =	1313	<	120
0 >	OUT =	812	>	154	0 >	OUT =	1313	>	19
	v	^				v	^		
	592	144				385	831		
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):				
2016					2016				
	22	6				21	28		
	v	^				v	^		
0 <	IN =	39	<	4	0 <	IN =	59	<	11
0 >	OUT =	39	>	10	0 >	OUT =	58	>	4
	v	^				v	^		
	23	13				26	27		
EXISTING PEAK HOUR MODEL YEAR (PCES):					EXISTING PEAK HOUR MODEL YEAR (PCES):				
PHF FOR CARS: 0.38					PHF FOR CARS: 0.28				
	219	27				107	262		
	v	^				v	^		
0 <	IN =	322	<	44	0 <	IN =	382	<	36
0 >	OUT =	322	>	62	0 >	OUT =	382	>	6
	v	^				v	^		
	233	59				114	239		
FUTURE PEAK PERIOD MODEL YEAR (AUTO):					FUTURE PEAK PERIOD MODEL YEAR (AUTO):				
2040					2040				
	1347	186				1155	2115		
	v	^				v	^		
0 <	IN =	1639	<	159	0 <	IN =	3572	<	438
0 >	OUT =	1639	>	290	0 >	OUT =	3572	>	170
	v	^				v	^		
	1163	133				1287	1979		
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCES):				
2040					2040				
	237	15				46	193		
	v	^				v	^		
0 <	IN =	266	<	6	0 <	IN =	252	<	14
0 >	OUT =	266	>	13	0 >	OUT =	252	>	6
	v	^				v	^		
	238	23				53	192		
FUTURE PEAK HOUR MODEL YEAR (PCES):					FUTURE PEAK HOUR MODEL YEAR (PCES):				
PHF FOR CARS: 0.38					PHF FOR CARS: 0.28				
	591	76				335	640		
	v	^				v	^		
0 <	IN =	711	<	62	0 <	IN =	1063	<	126
0 >	OUT =	711	>	115	0 >	OUT =	1063	>	49
	v	^				v	^		
	521	58				374	602		

Clearwater Parkway (NS) / Glen Helen Parkway (EW) - #5												
MORNING PEAK HOUR						EVENING PEAK HOUR						
RAW GROWTH (PCes):	2016	TO	2040			RAW GROWTH (PCes):	2016	TO	2040			
CONVERSION OF TRUCKS TO:			2040	372	49	CONVERSION OF TRUCKS TO:			2040	228	379	
FACTOR =	1.00			v	^	FACTOR =	1.00			v	^	
				0	<					0	<	90
				0	>					0	>	43
										v	^	
				289	-1					259	363	
ADJUSTED GROWTH (PCes):	2016	TO	2040			ADJUSTED GROWTH (PCes):	2016	TO	2040			
10.00 MINIMUM GROWTH %				370	50	10 MINIMUM GROWTH %				230	380	
				v	^					v	^	
				0	<	IN =				0	<	IN = 680
				0	>	OUT =				0	>	OUT = 680
										v	^	
				290	0					260	360	
PRORATED GROWTH (PCes):	2023	TO	2040			PRORATED GROWTH (PCes):	2023	TO	2040			
17 YEARS				260	40	17 YEARS				160	270	
				v	^					v	^	
				0	<					0	<	60
				0	>					0	>	30
										v	^	
				210	0					180	260	
NEW PROJECTED VOLUMES (PCes):	2040			480	220	NEW PROJECTED VOLUMES (PCes):	2040			340	540	
				v	^					v	^	
				0	<					0	<	420
				0	>					0	>	320
										v	^	
				740	330					600	710	
YEAR 2025 GROWTH:	2023	TO	2025			YEAR 2025 GROWTH:	2023	TO	2025			
2 YEARS				30	0	2 YEARS				20	30	
				v	^					v	^	
				0	<					0	<	10
				0	>					0	>	0
										v	^	
				20	0					20	30	
INITIAL YEAR 2025 VOLUMES:	2025			250	180	INITIAL YEAR 2025 VOLUMES:	2025			200	300	
				v	^					v	^	
				0	<	IN =				0	<	IN = 1050
				0	>	OUT =				0	>	OUT = 1030
										v	^	
				550	330					440	480	
BALANCED YEAR 2025 VOLUMES:	2025			250	180	BALANCED YEAR 2025 VOLUMES:	2025			200	310	
				v	^					v	^	
				0	<	IN =				0	<	IN = 1050
				0	>	OUT =				0	>	OUT = 1060
										v	^	
				560	330					450	480	
ADT BY LEG:	2040			8,190		ADT BY LEG:	2040			8,190		
				N						N		
		0	W	LEG	E			0	W	LEG	E	9,790
				S						S		
				11,710						11,710		
ADT BY LEG:	2025			5,670		ADT BY LEG:	2025			5,670		
				N						N		
		0	W	LEG	E			0	W	LEG	E	7,770
				S						S		
				10,110						10,110		

Cajon Boulevard (NS) / Kendall Drive (EW) - #6									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):				
2023					2023				
	0	83	157			0	97	122	
	<	v	>			<	v	>	
	0	^		^ 88		0	^		^ 128
	0	>		< 0		0	>		< 0
	0	v		v 5		0	v		v 7
	<	^	>			<	^	>	
	0	42	6			0	183	4	
EXISTING PEAK HOUR COUNT YEAR (AUTOS):					EXISTING PEAK HOUR COUNT YEAR (AUTOS):				
2023					2023				
		240	130				219	311	
		v	^				v	^	
	0	<	IN =	381 < 93		0	<	IN =	541 < 135
	0	>	OUT =	381 > 163		0	>	OUT =	541 > 126
		v	^				v	^	
		88	48				104	187	
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCES):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCES):				
	0	38	47			0	62	60	
	<	v	>			<	v	>	
	0	^		^ 60		0	^		^ 63
	0	>		< 0		0	>		< 0
	0	v		v 5		0	v		v 5
PCE FACTORS BY AXLE:					PCE FACTORS BY AXLE:				
2:	1.5	3:	2.0	4+: 3.0	2:	1.5	3:	2	4+: 3.0
	0	37	0			0	58	2	
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCes):					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCes):				
2023					2023				
	0	121	204			0	159	182	
	<	v	>			<	v	>	
	0	^		^ 148		0	^		^ 191
	0	>		< 0		0	>		< 0
	0	v		v 10		0	v		v 12
	<	^	>			<	^	>	
	0	79	6			0	241	6	
EXISTING PEAK PERIOD MODEL YEAR (AUTO):					EXISTING PEAK PERIOD MODEL YEAR (AUTO):				
2016					2016				
		163	198				304	244	
		v	^				v	^	
	0	<	IN =	364 < 182		0	<	IN =	552 < 198
	0	>	OUT =	363 > 129		0	>	OUT =	551 > 266
		v	^				v	^	
		36	19				41	50	
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCes):					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCes):				
2016					2016				
		12	13				15	14	
		v	^				v	^	
	0	<	IN =	25 < 5		0	<	IN =	29 < 5
	0	>	OUT =	26 > 5		0	>	OUT =	29 > 6
		v	^				v	^	
		8	8				9	9	
EXISTING PEAK HOUR MODEL YEAR (PCes):					EXISTING PEAK HOUR MODEL YEAR (PCes):				
PHF FOR CARS: 0.38					PHF FOR CARS: 0.28				
		66	80				89	72	
		v	^				v	^	
	0	<	IN =	147 < 71		0	<	IN =	162 < 57
	0	>	OUT =	147 > 51		0	>	OUT =	162 > 76
		v	^				v	^	
		16	10				14	16	
FUTURE PEAK PERIOD MODEL YEAR (AUTO):					FUTURE PEAK PERIOD MODEL YEAR (AUTO):				
2040					2040				
		939	503				878	1361	
		v	^				v	^	
	0	<	IN =	1492 < 454		0	<	IN =	2320 < 861
	0	>	OUT =	1491 > 561		0	>	OUT =	2320 > 721
		v	^				v	^	
		427	99				238	581	
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCes):					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCes):				
2040					2040				
		32	30				34	36	
		v	^				v	^	
	0	<	IN =	64 < 13		0	<	IN =	71 < 15
	0	>	OUT =	64 > 14		0	>	OUT =	71 > 14
		v	^				v	^	
		20	19				21	22	
FUTURE PEAK HOUR MODEL YEAR (PCes):					FUTURE PEAK HOUR MODEL YEAR (PCes):				
PHF FOR CARS: 0.38					PHF FOR CARS: 0.28				
		367	201				254	390	
		v	^				v	^	
	0	<	IN =	588 < 177		0	<	IN =	667 < 245
	0	>	OUT =	588 > 218		0	>	OUT =	667 > 205
		v	^				v	^	
		169	44				72	168	

Cajon Boulevard (NS) / Kendall Drive (EW) - #6													
MORNING PEAK HOUR							EVENING PEAK HOUR						
RAW GROWTH (PCes):	2016	TO	2040				RAW GROWTH (PCes):	2016	TO	2040			
CONVERSION OF TRUCKS TO:			2040	302	122		CONVERSION OF TRUCKS TO:			2040	165	318	
FACTOR =	1.00			v	^		FACTOR =	1.00			v	^	
				0	<	< 106					0	<	< 188
				0	>	> 167					0	>	> 129
				v	^						v	^	
				153	34						58	152	
ADJUSTED GROWTH (PCes):	2016	TO	2040				ADJUSTED GROWTH (PCes):	2016	TO	2040			
10.00 MINIMUM GROWTH %				300	120		10 MINIMUM GROWTH %				170	320	
				v	^						v	^	
				0	<	IN = 440 < 110					0	<	IN = 510 < 190
				0	>	OUT = 440 > 170					0	>	OUT = 510 > 130
				v	^						v	^	
				150	30						60	150	
PRORATED GROWTH (PCes):	2023	TO	2040				PRORATED GROWTH (PCes):	2023	TO	2040			
17 YEARS				210	90		17 YEARS				120	230	
				v	^						v	^	
				0	<	< 80					0	<	< 130
				0	>	> 120					0	>	> 90
				v	^						v	^	
				110	20						40	110	
NEW PROJECTED VOLUMES (PCes):	2040			540	320		NEW PROJECTED VOLUMES (PCes):	2040			460	660	
				v	^						v	^	
				0	<	< 240					0	<	< 330
				0	>	> 330					0	>	> 280
				v	^						v	^	
				240	110						210	360	
YEAR 2025 GROWTH:	2023	TO	2025				YEAR 2025 GROWTH:	2023	TO	2025			
2 YEARS				30	10		2 YEARS				10	30	
				v	^						v	^	
				0	<	< 10					0	<	< 20
				0	>	> 10					0	>	> 10
				v	^						v	^	
				10	0						10	10	
INITIAL YEAR 2025 VOLUMES:				360	240		INITIAL YEAR 2025 VOLUMES:				350	460	
2025				v	^		2025				v	^	
				0	<	IN = 620 < 170					0	<	IN = 830 < 220
				0	>	OUT = 600 > 220					0	>	OUT = 840 > 200
				v	^						v	^	
				140	90						180	260	
BALANCED YEAR 2025 VOLUMES:				360	250		BALANCED YEAR 2025 VOLUMES:				350	460	
2025				v	^		2025				v	^	
				0	<	IN = 620 < 170					0	<	IN = 830 < 220
				0	>	OUT = 620 > 230					0	>	OUT = 840 > 200
				v	^						v	^	
				140	90						180	260	
ADT BY LEG:				13,800			ADT BY LEG:				13,800		
2040				N			2040				N		
			0	W	LEG E	8,280				0	W	LEG E	8,280
				S							S		
				13,800							13,800		
ADT BY LEG:				10,260			ADT BY LEG:				10,260		
2025				N			2025				N		
			0	W	LEG E	4,830				0	W	LEG E	4,830
				S							S		
				9,960							9,960		



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