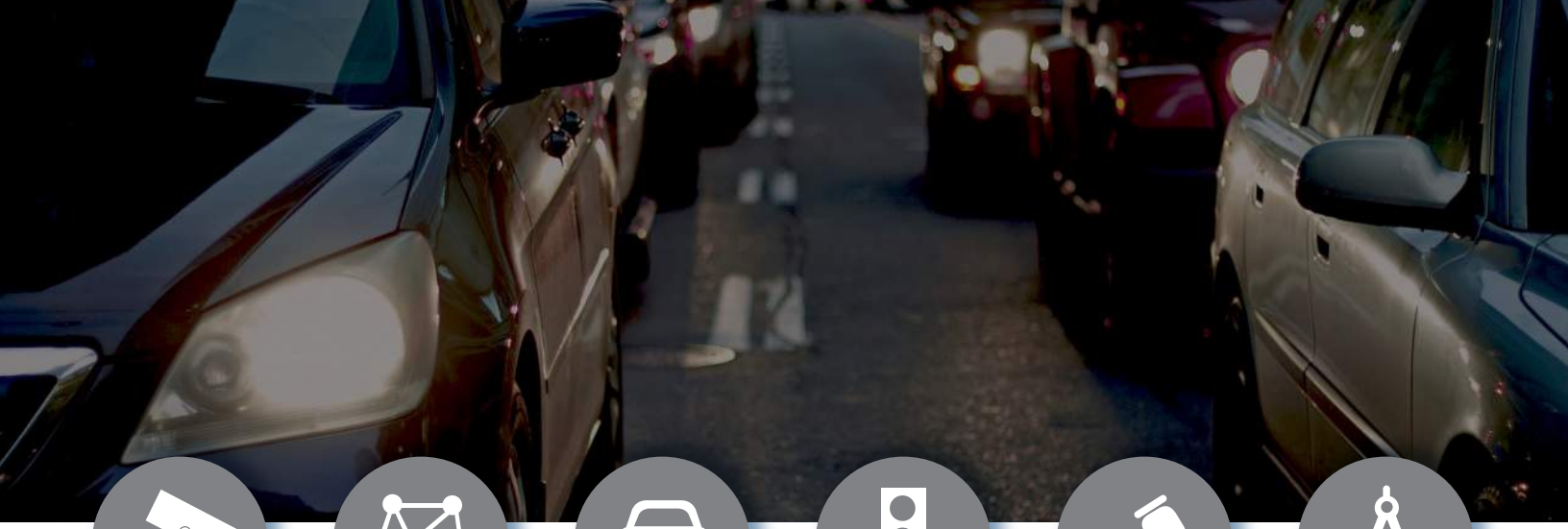

TRAFFIC IMPACT STUDY

98th Street and Gibson Boulevard Gas Station

Final Report
February 2023

Prepared for
ATWELL, LLC

HT#M09D034
Recieved
2/8/2023

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LEE ENGINEERING

Traffic Impact Study (TIS)
for Gibson Gas Station

Final Report

February 2023

Prepared for:

ATWELL, LLC

Prepared By:

LEE ENGINEERING

EXECUTIVE SUMMARY

The following contains a Traffic Impact Study (TIS) for a Gas Station in Albuquerque, NM. Lee Engineering has completed this report for ATWELL, LLC All analyses and items contained herein conform to scoping requirements set forth in a scoping meeting held on January 27th, 2022.

BACKGROUND

The proposed development is to construct an Allsup's Convenience store and Gas Station to be located on the northeast corner of 98th St and Gibson Blvd. Nearby major intersections include Gibson Blvd & 98th St, 98th St & 86th St, 98th St & Blake Rd, and Gibson Blvd & Unser Blvd.

The site is anticipated to generate 379 ingress and 380 egress trips during the AM peak hour and 323 ingress and 323 egress trips during the PM peak hour. The number of vehicle trips generated by the proposed development was based on the trip generation rates and equations provided in the Trip Generation Manual, 11th Edition, by the Institute of Transportation Engineers (ITE) 945 – Convenience Store/Gas Station.

There are two proposed access points to the development. One full access driveway on 98th St and one right-in / right-out only driveway on Gibson Blvd. The proposed site access to 98th St will be referred to as Site Driveway A for purposes of this report. The proposed site access to Gibson Blvd will be similarly referred to as Site Driveway B. Details and recommendations for the addition of the site access driveways are included in the body of this report.

Study intersections include:

1. 98th St & 86th St
A. Site Driveway A
B. Site Driveway B
2. Gibson Blvd & 98th St
3. 98th St & Blake Rd
4. Gibson Blvd & Unser Blvd

The proposed construction would begin in 2022. To be constructed in a single phase, project completion is anticipated in 2023.

Analysis scenarios for this study include:

- Existing Year (2022) – Field counted existing traffic volumes
- Build-Out Year (2023) Background – Projected traffic volumes for 2023 based on Existing TMC volumes with an applied annual growth rate derived from travel demand models provided by the Mid-Region Council of Governments (MRCOG).
- Build-Out Year (2023) Total – Build-Out Year Background volumes plus trips generated by the development per the ITE Trip Generation Manual, 11th Edition
- Build-Out Year (2023) Optimized – Build-Out Year Total volumes with optimized signal timings and lane configurations at intersections which displayed unacceptable LOS results under the Existing or Build-Out scenarios.
- Horizon Year (2033) Background – Projected traffic volumes for 2033 based on Existing TMC volumes with an applied annual growth rate derived from travel demand models provided by the Mid-Region Council of Governments (MRCOG)
- Horizon Year (2033) Total – Horizon Year Background volumes plus trips generated by the development per the ITE Trip Generation Manual, 11th Edition

Existing turning movement counts were collected on March 1st, 2022, for all study roadway intersections. Existing turning movements for Site Driveway A were collected on March 17th, 2022. These volumes were analyzed in the Existing portion of the Capacity Analysis section.

Site trips for the development site were generated based on ITE 945 – Convenience Store/Gas Station, Peak Hour of Adjacent Street Traffic Generators. Proposed development-generated trips were used to analyze Build-Out Year (2023) Total and Horizon Year (2033) Total scenarios.

SUMMARY OF RECOMMENDATIONS

The following presents a summary of recommendations included in this report.

DEVELOPMENT SPECIFIC RECOMMENDATIONS

- Entering traffic volumes warrant a northbound right turn deceleration lane on 98th St.
    - Due to existing physical constraints (see auxiliary lane section for details), if a deceleration lane is desired for entering vehicles, it is recommended that a northbound Right-in -only driveway be constructed at the north boundary of the site (south of the full access Driveway A) with a deceleration lane. The deceleration should be constructed to meet CABQ DPM requirements or as close as possible to those requirements within the existing roadway geometry and available space.
- It is recommended that all development driveways adhere to the sight distance provisions detailed in the COA DPM or the AASHTO "Green Book" as applicable and outlined in this report.

ANCILLARY RECOMMENDATIONS

- At 98th St and Gibson Blvd, the southbound right turn lane does not meet the recommended storage length provided by the DPM and should be lengthened to 240 feet plus 150 to 300 Feet transition taper
- The conversion of the intersection of 98th St and 86th St / De Anza Rd from a stop-controlled into a signalized intersection should be considered based on the results of the Signal Warrant Analysis having been satisfied for warrants 1, 2, and 8.
    - As part of the signalization the addition of an eastbound auxiliary left-turn lane is recommended at the intersection of 98th St and 86th St / De Anza Rd.
    - Prior to signalization, the lengthening of the north and southbound right turn lanes to match as closely as possible the storage lengths presented by the DPM Table 7.4.68.
- HCS results suggest the need for future evaluation of capacity and queuing mitigation measures or street improvements unrelated to the proposed development at the intersection of Gibson Blvd and Unser Blvd.

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INTRODUCTION

This report details the procedures and findings of a Traffic Impact Study (TIS) by Lee Engineering originally initiated by Sims Architects for a convenience store/gas station. During the course of the study the original project was terminated and the property was transferred to ATWELL, LLC. ATWELL, LLC. This study continues the TIS analysis for a convenience store/gas station to be constructed on the northeast corner of 98th St and Gibson Blvd. This study examines the impacts of the proposed development on surrounding traffic conditions and discusses the potential impacts of trips generated by the development on the study intersections.

The scope of this report and the analyses performed were completed in agreement with scoping requirements set forth by the City of Albuquerque. Scoping meeting notes from the scoping meeting held on January 27th, 2022, are included in Appendix A. Analysis procedures, conclusions, and recommendations for this study were developed according to the *Highway Capacity Manual 6th Edition* and the *Manual on Uniform Traffic Control Devices 2009 Edition*.

Single-phase construction is anticipated to begin in 2022, with full completion of the development in 2023. The proposed development site plan displayed in **Figure 1** shows that the proposed development is a travel center with 12 fueling stations providing 24 individual fueling positions. Traffic generated by the site is anticipated to be 379 ingress and 380 egress trips during AM peak hours. 323 ingress and 323 egress trips are expected during the PM peak hour. Lee Engineering conducted an HCS Capacity Analysis for the following AM and PM peak hour scenarios:

Traffic Analysis Scenarios

- **Existing Year (2022) –** Field counted existing traffic volumes
- **Build-Out Year (2023) Background** – Projected traffic volumes for 2023 based on Existing TMC volumes with an applied annual growth rate
- **Build-Out Year (2023) Total** – Build-Out Year Background volumes plus trips generated by the development
- **Build-Out Year (2023) Optimized** – Build-Out Year Total volumes with optimized signal timings and lane configurations at intersections which displayed unacceptable LOS results under the Existing or Build-Out scenarios.
- **Horizon Year (2033) Background** – Projected traffic volumes for 2033 based on Existing Year TMC volumes with an applied annual growth rate
- **Horizon Year (2033) Total** – Horizon Year Background volumes plus trips generated by the development

PROJECT LOCATION & SITE PLAN

The gas station is to be located on the northeast corner of 98th St and Gibson Blvd. **Figure 1** shows the proposed site plan, and **Figure 2** shows the site location, study intersections, and the surrounding area. The neighboring intersections include 98th St & 86th St, Gibson Blvd & 98th St, 98th St & Blake Rd, and Gibson Blvd & Unser Blvd. Existing residential developments surround the study area, and existing commercial developments are located to the north and west.

The proposed development would convert approximately 2.7 acres of undeveloped land into a gas station and convenience store. The development would include 12 pump stations with 24 individual fueling positions, 24 parking spaces, and a 5,630 square foot convenience store. There are two proposed access driveways, including one on 98th St and one on Gibson Blvd.

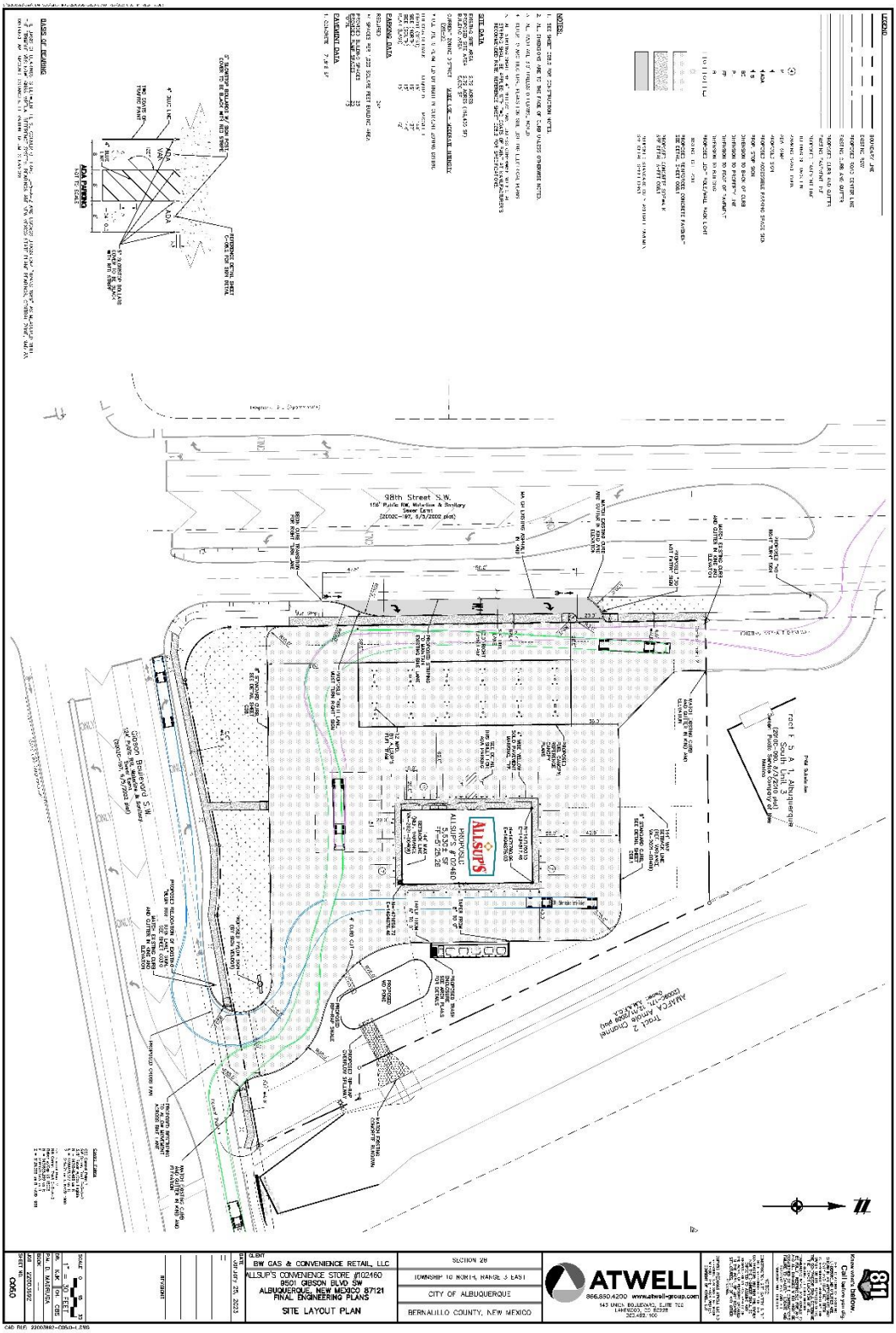


Figure 1: Site Plan

Figure 2: Vicinity Map

STUDY AREA, AREA LAND USE, AND STREETS NARRATIVE SUMMARY

STUDY AREA

The study area was defined as the 98th St corridor from 86th St to Blake Rd and the Gibson Blvd corridor from 98th St to Unser Blvd. The following intersections were identified for analysis during the scoping meeting:

1. 98th St & 86th St
A. Site Driveway A
B. Site Driveway B
2. Gibson Blvd & 98th St
3. 98th St & Blake Rd
4. Gibson Blvd & Unser Blvd

AREA LAND USE

Land uses adjacent to and surrounding consist of the following:

- Commercial: A Walgreens drug store is on the west side of 98th St across from the development site, on the northwest corner.
- Residential: Single-family residential zones surround the study area. There are also multi-family residential zones to the south of the development site, bordering the north and south sides of Blake Rd. Additional multi-family zones are located west of the study area. Residential townhouse zones are located southeast of the development site, west of Unser Blvd. A manufactured home community is located southeast of the development site, east of Unser Blvd.
- Undeveloped/Not Improved: Undeveloped plots are located on the northwest and southwest corners of Gibson Blvd and 98th St. There are additional undeveloped plots east of the development site, north and south of Gibson Blvd.

- Infrastructure: A PNM substation adjacent to the site's north side and would share Site Driveway A for access.

STREETS

The following details the characteristics and features of streets included in the study area:

98th St, also called Snow Vista Blvd, is a four-lane divided CABQ maintained roadway classified as a principal arterial that runs north/south in Albuquerque, NM. The posted speed limit is 35 MPH. The roadway has striping, and a 40-foot raised median. The median narrows to accommodate left turn bays at all intersections in the study area. Travel lanes are 12 feet wide with unprotected bike lanes in each direction ranging from 4 to 6 feet wide. The continuous sidewalk is present in both directions south of Gibson Blvd, and the intermittent sidewalk is present north.

Gibson Blvd is a four-lane CABQ maintained roadway classified as a major collector that runs west in the southwest quadrant of Albuquerque, NM. The posted speed limit is 40 MPH. The roadway has striping and is divided by a 36-foot raised median. The median narrows to accommodate left turn bays at all intersections in the study area. The travel lanes are 12 feet wide, with bike lanes ranging from 4 to 6 feet wide in each direction through the study area. There is no sidewalk adjacent to the proposed site except for an approximately 100-foot stretch running from the curb cut at 98th St and Gibson Blvd to the bus stop.

86th St is a two-lane CABQ maintained roadway classified as a major collector that runs west as it intersects 98th St. West of 98th St, the roadway becomes De Anza Dr SW. The roadway is on average a total of 45 feet wide. Clear striping is present on the roadway and there is continuous curbs and sidewalks in both directions. No bicycle facilities are present.

De Anza Dr is a two-lane CABQ maintained roadway classified as a Local Street that runs east as it intersects 98th St. The posted speed limit is 35 mph and is worn/not visible. Curb and sidewalk are present on both sides of the road and there are no bicycle facilities present.

Blake Rd is a two-lane CABQ maintained local roadway that runs west as it intersects 98th St. The posted speed limit is 35 MPH. The roadway has striping, and travel lanes are 12 feet wide. There is a westbound bike lane through the study area, and an eastbound bike lane that begins east of the intersection of Blake Rd and 98th St. Bike lanes are 4 feet wide and are buffered. There is continuous curb and sidewalk in both directions.

Unser Blvd is a four-lane CABQ maintained roadway classified as a principal arterial that runs north in Albuquerque, NM. The posted speed limit is 40 MPH. The roadway has striping and is divided by a non-traversable median. Travel lanes are 12 feet wide. 4-foot bike lanes and continuous sidewalk is present in both directions.

INTERSECTIONS

The following details the traffic control and characteristics of existing intersections in the study area:

98th St & 86th St / De Anza Dr is a 4-legged, 4-way stop-controlled intersection of a principal arterial and a major collector. The northbound and southbound legs each consist of a left turn lane, two through lanes, and a right turn lane. The eastbound leg consists of a one through lane with right turns permitted. The westbound leg consists of a left turn lane and a through lane with right turns permitted. Crosswalks are present at all legs of the intersection, although the crosswalk paint is worn.

Gibson Blvd & 98th St is a 4-legged, 4-way stop-controlled intersection of a major collector and a principal arterial. Each leg of the intersection consists of a left turn lane, two through lanes, and a right turn lane. Crosswalks are not present at any leg of the intersection.

98th St & Blake Rd is a 4-legged, signalized intersection of principal arterial and a local road. The southbound leg consists of a left turn lane and two through lanes, with right turns permitted. The northbound leg consists of a left turn lane, two through lanes, and a right turn lane. The eastbound and westbound legs each consist of a left turn lane and a through lane with right turns permitted. Pedestrian pushbuttons and painted crosswalks are present at each leg of the intersection.

Gibson Blvd and Unser Blvd is a 4-legged, signalized intersection of a major collector and a principal arterial. The northbound and southbound legs each consist of a left turn lane, two through lanes, and a right slip lane. The eastbound leg consists of two left turn lanes, a through lane, and a right slip lane. The westbound leg consists of a left turn lane, a through lane, and a right slip lane. Pedestrian pushbuttons and painted crosswalks are present at each leg of the intersection.

DATA COLLECTION

The following section details data collection used in subsequent analyses of this report. Data discussed below was collected via a combination of field observations and machine/video recordings.

Field Data Collection

TRANSIT

Several bus stops for ABQ Ride transit routes serve the study area. There are two stops on 98th St north of 86th St, one southbound and one northbound. Directly in front of the development site and on the southeast corner of Gibson and 98th St are two more bus stops. On 98th St north of Blake Rd, there is a southbound stop and a northbound stop.

ON-STREET PARKING

Illegal on-street parking was observed on the bicycle lane on Blake Rd, east of the intersection of 98th St and Blake Rd. No dedicated on-street space is provided in the study area.

PEDESTRIANS AND BICYCLES

Pedestrian and bicycle volumes were collected at all study intersections with turning movement counts (see Turning Movement Counts and Demand Volumes section below). Pedestrian and bicycle hourly volumes were used in the HCS capacity analyses and are provided in Appendix B.

Turning Movement Counts

Turning movement counts for the study intersections of 98th St and Gibson Blvd, 98th and Blake, and Gibson Blvd and Unser Blvd were collected for two separate three-hour periods: 6:00 AM to 9:00 AM, and 3:30 PM to 6:30 PM, on March 1st, 2022. The same two three-hour period turning movement counts were collected at the Site Driveway A location on March 13th, 2022. To conduct a Signal Warrant Analysis for the study intersection of 98th St and 86th St / De Anza Dr turning movement counts were collected for 13 consecutive hours from 6:00 AM to 7:00 PM on March 1st, 2022. Turning movement volumes collected at the study intersections show a typical commuter type distribution with observable AM and PM peak hour periods. Network peak hours were determined by summating the Turning Movement Counts from all study intersections to determine the network AM and PM peak hours. Complete turning movement counts can be found in Appendix B.

Note: The specific time frame and associated peak hour volumes of the Network peak hours may differ from the time frames and associated peak hour volumes of individual intersections.

TRAFFIC SIGNAL WARRANT ANALYSIS

The City of Albuquerque has requested a Traffic Signal Warrant Analysis as part of the Gibson & 98th St Gas Station Traffic Impact Study for the intersection of 98th St with 86th St in the southwest quadrant of Albuquerque, New Mexico. This evaluation includes a signal warrant control analysis to improve the intersection's safety and traffic operations. Existing turning movement counts, traffic speed and volumes, and crash activity was collected and documented for this intersection over 13 consecutive hours.

This report's traffic signal warrant analysis is based on the traffic signal warrants contained in Chapter 4C, *Traffic Control Signal Needs Studies*, of the 2009 Manual on Uniform Traffic Control Devices (MUTCD). Nine warrants are included in the manual for warranting a traffic signal installation. These warrants are:

- Warrant 1 – Eight-Hour Vehicular Volume;
- Warrant 2 – Four-Hour Vehicular Volume;
- Warrant 3 – Peak Hour;
- Warrant 4 – Pedestrian Volume;
- Warrant 5 – School Crossing;
- Warrant 6 – Coordinated Signal System;
- Warrant 7 – Crash Experience;
- Warrant 8 – Roadway Network;
- Warrant 9 – Intersection Near a Grade Crossing

Additionally, the multi-way stop analysis uses MUTCD Section 2B.07 Multi-Way Applications criteria.

EXISTING CONDITIONS

98th St is a four-lane divided roadway with a posted speed limit of 35 miles per hour (MPH). In the vicinity of the study intersection, 98th St has two lanes in each direction. 86th St comprises the westbound approach to the intersection. It is a two-lane undivided roadway with a posted speed limit of 35 MPH. De Anza Dr is the eastbound approach to the intersection, and is also a two-lane undivided roadway with a posted speed limit of 25 mph. 98th St is a northbound-southbound roadway and 86th St is a westbound roadway, and the intersection of these two streets is currently four-way stop-controlled. Based on the traffic volumes at this intersection, 98th St is considered the *Major Roadway* for this analysis with multi-lane approaches (two lanes in each direction). 86th St will be considered a *Minor Roadway* with single lane approaches. An aerial photograph of the intersection is shown in **Figure 3**.

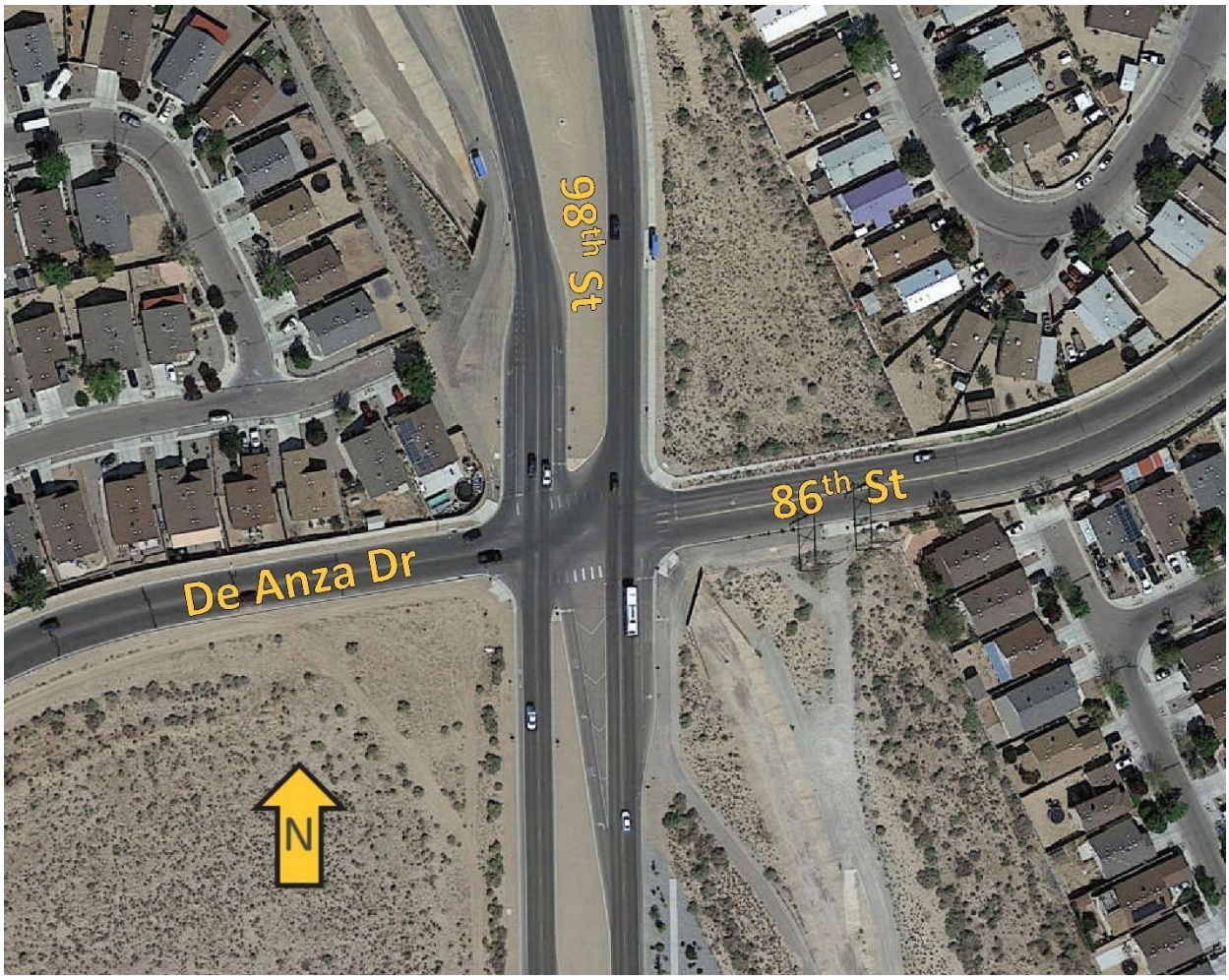


Figure 3: 98th St & 86th St

Data Collection

This analysis was performed using existing turning movement volumes collected over 13-hours on Tuesday, March 1st, 2022, summarized in **Table 1** with the raw data presented in the Appendix.

Table 1: Traffic Signal Warrant Volume Summary

Hour Begin	98th St			86th St				Total Minor Volume	Pedestrians Crossing Major Roadway
	NB Volume	SB Volume	Total Volume	EB Volume		WB Volume			
				Thru/LT	RT	Thru/LT	RT		
0:00			0					0	
1:00			0					0	
2:00			0					0	
3:00			0					0	
4:00			0					0	
5:00			0					0	
6:00	346	264	610	166	11	13	24	214	0
7:00	535	445	980	244	15	51	41	351	0
8:00	431	385	816	143	6	32	13	194	0
9:00	267	269	536	88	1	16	19	124	8
10:00	250	293	543	92	8	9	10	119	2
11:00	267	311	578	85	7	15	15	122	6
12:00	308	408	716	106	5	16	18	145	0
13:00	323	446	769	104	6	23	21	154	1
14:00	476	579	1,055	137	4	33	18	192	0
15:00	387	658	1,045	132	13	56	29	230	9
16:00	452	791	1,243	111	11	42	19	183	1
17:00	459	841	1,300	152	11	49	19	231	0
18:00	416	770	1,186	128	7	41	19	195	0
19:00			0					0	
20:00			0					0	
21:00			0					0	
22:00			0					0	
23:00			0					0	
TOTAL	**4,917**	**6,460**	**11,377**	**1,688**	**105**	**396**	**265**	**2,454**	**27**

The *MUTCD* recommends considering the effects of right turn volumes on the minor street approach if the movement enters the major street with minimal conflict, primarily with a right turn lane. The westbound 86th St approach does have a left turn lane but not a dedicated right turn lane. Based on the traffic volumes at this intersection, 98th St is considered the *Major Roadway* for this analysis with multi-lane approaches. 86th St will be regarded as a *Minor Roadway* without right turn lane approaches; thus, no reduction was utilized at this location. **Table 2** summarizes the volume warrant results, as discussed in the next section.

Table 2: Volume for Analysis and Warrant Results Summary

Hour Begin	98th St			86th St		Max Volume	Meets Warrants?					
	NB Volume	SB Volume	Total Volume	EB Volume	WB Volume		1A	1B	1-Combo		2	3
									A	B		
0:00			0			0	0	0	0	0		
1:00			0			0	0	0	0	0		
2:00			0			0	0	0	0	0		
3:00			0			0	0	0	0	0		
4:00			0			0	0	0	0	0		
5:00			0			0	0	0	0	0		
6:00	346	264	610	177	37	177	1	0	1	0		
7:00	535	445	980	259	92	259	1	1	1	1	1	
8:00	431	385	816	149	45	149	0	0	1	1		
9:00	267	269	536	89	35	89	0	0	0	0		
10:00	250	293	543	100	19	100	0	0	0	0		
11:00	267	311	578	92	30	92	0	0	0	0		
12:00	308	408	716	111	34	111	0	0	0	0		
13:00	323	446	769	110	44	110	0	0	0	1		
14:00	476	579	1,055	141	51	141	0	1	1	1		
15:00	387	658	1,045	145	85	145	0	1	1	1	1	
16:00	452	791	1,243	122	61	122	0	1	1	1	1	
17:00	459	841	1,300	163	68	163	1	1	1	1	1	
18:00	416	770	1,186	135	60	135	0	1	1	1		
19:00			0			0	0	0	0	0		
20:00			0			0	0	0	0	0		
21:00			0			0	0	0	0	0		
22:00			0			0	0	0	0	0		
23:00			0			0	0	0	0	0		
TOTAL	**4,917**	**6,460**	**11,377**	**1,793**	**661**	**1,793**	**3**	**6**	**8**	**8**	**4**	**0**
									8			

Individual Warrant Assessment

Warrant 1 – Eight-Hour Vehicular Volume

Warrant 1 is based on the volumes from both approaches on the major street and the higher approach volume on the minor street. It also uses the number of lanes for moving traffic on each approach. Either Condition A or Condition B of this warrant must be met for Warrant 1 to be satisfied.

The MUTCD allows for a reduced warranting threshold (70%) for intersections where the posted or 85th-percentile speed exceeds 40 MPH or if the intersection is located in a community with a population under 10,000. Since the posted speed limit on the major street (98th St) is less than 40 MPH (35 MPH) and the population of the Albuquerque is greater than 10,000 people (1,000,000), the reduced warranting threshold was not used for this warrant.

Condition A of Warrant 1 is met when, for each of any eight hours of an average day, the warranting volumes exist on the major street and on the higher-volume minor street approach to the intersection during the same eight hours. The warranting threshold for an approach with two or more lanes on the major street and an approach with one lane on the minor street is:

Major Street: 600 vph (total for both directions)

Minor Street: 150 vph (higher volume approach)

Warrant 1A threshold volumes are exceeded for three (3) hours of the day. Eight (8) hours are required for this warrant condition. Warrant 1A is not satisfied at this location.

Condition B of Warrant 1 applies to operating conditions where the major street traffic is so heavy that it creates excessive delay or hazardous conditions for minor street traffic when entering or crossing the major street. The warrant condition is met when, for each of any eight hours of an average day, the warranting volumes exist on the major street and on the higher-volume minor street approach to an intersection. The warranting threshold for an approach with two or more lanes on the major street and an approach with one lane on the minor street is:

Major Street: 900 vph (total for both directions)

Minor Street: 75 vph (higher volume approach)

Warrant 1B threshold volumes are exceeded for six (6) hours of the day. Eight (8) hours are required for this warrant condition. Warrant 1B is not satisfied at this location.

A combination of Conditions A and B may be applied at locations where Conditions A and B are not satisfied. The same eight hours of the day are not required to be used for meeting both conditions. Under the combination warrant, the warranting thresholds are:

Major Street: 480 vph and 720 vph for Conditions A and B, respectively (total for both directions)

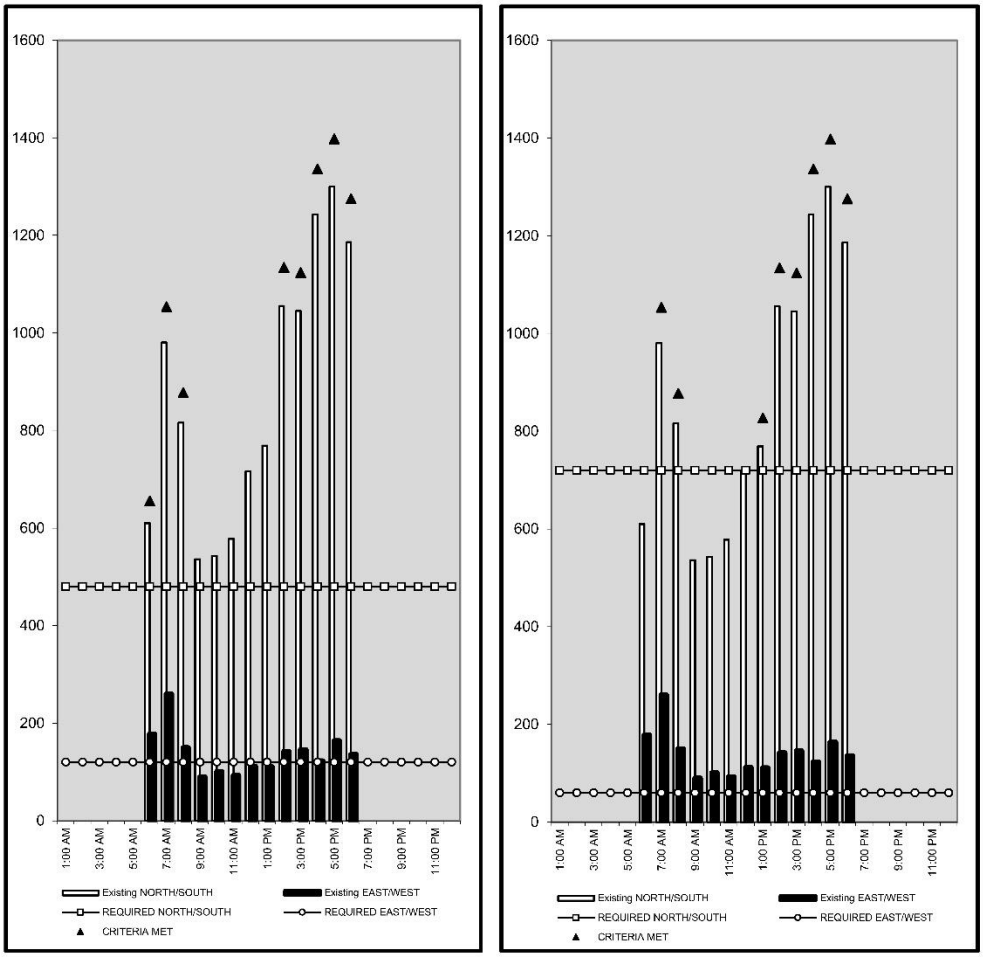
Minor Street: 120 vph and 60 vph for Conditions A and B, respectively (higher volume approach)

Combination threshold volumes are exceeded for eight (8) hours of the day. Eight (8) hours are required for this warrant condition. The combination warrant is satisfied at this location.

Based on these results and as shown in Table 2, **Warrant 1 is MET for this intersection**.

Panda Express Development Traffic Impact Study
98th St and 86th St I De Anza Dr
M. U. T. C. D. WARRANT # 1
Combination of Conditions A and B at 80% of Original Values

REQUIRED HOURLY VOLUMES FOR 8 HOURS ON NORTH/SOUTH STREET	480	720
REQUIRED HOURLY VOLUMES FOR 8 HOURS ON EAST/WEST STREET	120	60
NUMBER OF HOURS SATISFIED:	*8*	*8*
WARRANT CRITERIA:	**SATISFIED**	



The major-street and minor-street volumes shall be for the same 8 hours for each condition; however, the 8 hours satisfied on A shall not be required to be the same 8 hours satisfied in Condition B. The combination of Conditions A and B should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.

Figure 4: Eight-Hour Vehicular Volume Warrant (Warrant 1)

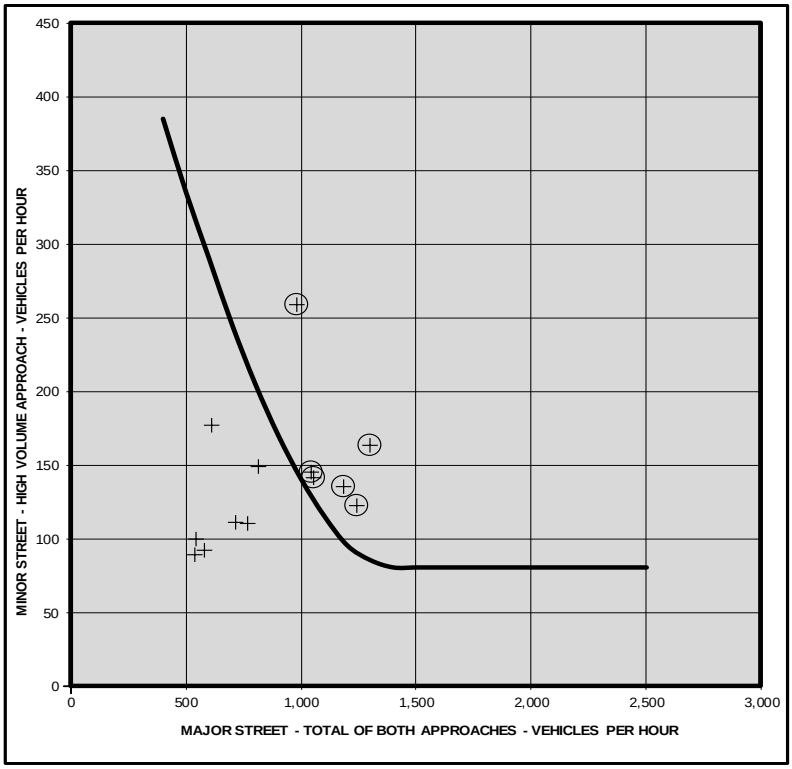
WARRANT 2 – FOUR-HOUR VOLUMES

Warrant 2 is satisfied when the volumes for any four (4) hours of an average day, when plotted on Figure 4C-1 (or 4C-2 when applicable) of the *MUTCD*, fall above the curve for the appropriate number of lanes. Since the posted speed limit on the major street (98th St) is less than 40 mph (35 mph), the reduced warranting threshold was not used for this warrant and Figure 4C-1 was used for this analysis. **Figure 2** shows the results of this analysis.

Based on the traffic volumes presented in Table 2 and plotted in **Figure 5**, four (4) hours of the day fall above the curve for the appropriate number of lanes when plotted on Figure 4C-1 of the *Texas MUTCD* for this intersection. Four (4) hours are required for this warrant condition. Under these circumstances, **Warrant 2 is MET for this intersection**.

Panda Express Development Traffic Impact Study
98th St and 86th St I De Anza Dr
M. U. T. C. D. WARRANT # 2
Four-Hour Vehicular Volume

NUMBER OF HOURS SATISFIED:	*6*
NUMBER OF HOURS SATISFIED BY LESS THAN 10%:	*0*
NUMBER OF HOURS WITHIN 10% OF BEING SATISFIED:	*0*
WARRANT CRITERIA:	**SATISFIED**



The Four Hour Vehicular Volume signal warrant conditions are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal. The need for a traffic control signal shall be considered if an engineering study finds that for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor-street approach (one direction only) all fall above the applicable curve provided in the MUTCD for the existing combination of approach lanes.

Figure 5: Four-Hour Vehicular Volume Warrant (Warrant 2)

WARRANT 3 – PEAK HOUR VOLUME

Warrant 3 is intended for application when traffic conditions are such that for at least one (1) hour of the day, the minor street traffic experiences undue delays entering or crossing the major street. Warrant 3 is satisfied when either of the following conditions is met:

1. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:
    a. The delay experienced by the traffic on the minor-street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach, and
    b. The volume on the same minor-street approach equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and
    c. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.
2. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 (or Figure 4C-4) of the *MUTCD* for the existing combination of approach lanes.

As further specified in the *MUTCD*:

> **"This signal warrant shall be applied only in unusual cases such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time."**

Traffic characteristics at this intersection do not fall under the unusual cases identified above. Therefore, **Warrant 3 is NOT APPLICABLE for this intersection and was not evaluated**.

WARRANT 4 – MINIMUM PEDESTRIAN VOLUME

Warrant 4 applies to conditions where the major street traffic is so heavy that pedestrians experience excessive delay in crossing the major street. It is intended for application at an intersection or midblock location and requires that one (1) of the following conditions be met:

1. For each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) fall above the curve in *MUTCD* Figure 4C-5 (or Figure 4C-6 for speeds greater than 35 mph); or
2. For one (1) hour (any four consecutive 15-minute periods) of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) fall above the curve in *MUTCD* Figure 4C-7 (or Figure 4C-8 for speeds greater than 35 mph).

This warrant applies only to those locations where the nearest traffic signal along the major street is greater than 300 feet away and where a new traffic signal at the study intersection would not unduly restrict platooned flow of traffic.

Based on the pedestrian volumes crossing 98th St, as shown in Table 1, very few pedestrians cross 98th St, and the threshold volumes (107 pedestrians during the 4th-highest hour or 133 pedestrians during the peak hour) are not met. **Warrant 4 was NOT MET at this intersection.**

WARRANT 5 – SCHOOL CROSSING

This warrant applies at an established school crossing where a traffic engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of school children at the school crossing shows that the number of adequate gaps in the traffic during the period when the children are using the crossing is less than the number of minutes in the same period.

Since this intersection is not an established school crossing, **Warrant 5 was NOT APPLICABLE.**

WARRANT 6 – COORDINATED SIGNAL SYSTEM

Progressive movement control sometimes requires traffic signal installations at intersections where they would not otherwise be warranted in order to maintain proper platooning of vehicles and effectively regulate group speed. This warrant is met when one (1) of the following requirements are met:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the required degree of platooning.
2. On a two-way street, adjacent signals do not provide the necessary degree of platooning and the proposed and adjacent signals could constitute a progressive signal system.

This warrant should not be applied where the ultimate signal spacing would be less than 1,000 feet. The nearest signalized intersections along 98th St are located approximately 3,500 feet to the north and approximately 1,200 feet to the south. Due to the existing and planned spacing of traffic signals, **Warrant 6 is NOT APPLICABLE at this intersection.**

WARRANT 7 – CRASH EXPERIENCE

The warrant is satisfied when:

1. Adequate trial of less restrictive remedies with satisfactory observance and enforcement has failed to reduce the crash frequency; and
2. Five or more reported crashes, of types susceptible to correction by traffic signal control, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and
3. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 80 percent columns of Condition A in *MUTCD* Table 4C-1, or the vph in both of the 80 percent columns of Condition B in *MUTCD* Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours. If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 56 percent columns in Table 4C-1 may be used in place of the 80 percent columns.

This analysis considered five years of crashes occurring in the study area between 2015 and 2019 provided by The University of New Mexico, Geospatial and Population Studies, Traffic Research Unit. This crash dataset, the most recent available at the time of this study, contained 39 reported crashes in the vicinity of 98th St and 86th St, averaging 8 crashes per year. Of the reported crashes, 8 resulted in injuries, and 31 are classified as property damage only. 0 crashes involved a pedestrian, 0 involved bicycles. Alcohol or drugs were or were not a top contributing factor in 38 crashes.
Criteria 1: *Adequate trial of less restrictive remedies with satisfactory observance and enforcement has failed to reduce the crash frequency* has not been met.
Based on the Warrant 7 satisfaction criteria, **Warrant 7 is NOT MET at this intersection**.

WARRANT 8 – ROADWAY NETWORK

The systems warrant is intended to encourage concentration and organization of traffic flow networks. This warrant is applicable when the common intersection of two major routes:

1. Has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour of a typical weekday and has five-year projected traffic volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or
2. Has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a Saturday and/or Sunday.

A major route as used in this signal warrant shall have one or more of the following characteristics:

1. It is part of the street or highway system that serves as the principal roadway network for through traffic flow; or
2. It includes rural or suburban highways outside, entering or traversing a City; or
3. It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study; or
4. It connects areas of principal traffic generation; or
5. It has street freeway or expressway ramp terminals.

In the Mid-Region Metropolitan Planning Organization, Long Range Rodway System, 98th St is classified as a Principal Arterial. 86th St is designated as a Major Collector by the MRMPO and can be considered a major route. In addition, both Warrants 1 and 2 are currently met. Therefore, **Warrant 8 is MET at this intersection.**

WARRANT 9 – INTERSECTION NEAR A GRADE CROSSING

This signal warrant is intended for use at a location where none of the conditions described in the other eight traffic signal warrants are met, but the proximity to the intersection of a grade crossing on an intersection approach controlled by a STOP or YIELD sign is the principal reason to consider installing a traffic control signal.

The need for a traffic control signal shall be considered if an engineering study finds that both of the following criteria are met:

1. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach; and

2. During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in *MUTCD* Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13 of the MUTCD.

A railroad grade crossing is not located within 140 feet of this intersection. **Warrant 9 is NOT APPLICABLE for this intersection**.

Signal Warrant Results

Based on the existing traffic volumes and this traffic signal warrant analysis, traffic signal warrants are satisfied for the intersection of 98th St and 86th St. A summary of the traffic signal warrants is provided in **Table 3**.

Table 3: Warrant Summary

Warrant	Warrant Met?	Notes
1 – Eight-Hour Vehicular Volume	YES	Condition A – 3 hours met (8 required)
		Condition B – 6 hours met (8 required)
		Combination – 8 hours met (8 required)
2 – Four-Hour Vehicular Volume	YES	4 hours met (4 required)
3 – Peak Hour	N/A	Not a "special generator"
4 – Pedestrian Volume	NO	107/133 hours not met for 4-hour and peak hour
5 – School Crossing	N/A	Not an established school crossing
6 – Coordinated Signal System	N/A	Spacing of adjacent signals less than 1,000'
7 – Crash Experience	NO	Crash history does not meet warrants
8 – Roadway Network	YES	Not an intersection of two major routes
9 – Near a Grade Crossing	N/A	Not adjacent to a grade crossing

From the results of this traffic signal warrant analysis, it is recommended that the City of Albuquerque consider the installation of a traffic signal at this intersection based on the existing traffic volumes counts.

CAPACITY ANALYSIS: LEVEL OF SERVICE AND QUEUING

ANALYSIS SCENARIOS AND VOLUME CALCULATIONS

EXISTING YEAR (2022)

For the Existing Year traffic volumes, video collected turning movement counts (TMCs) were used. AM and PM peak hours were analyzed for service level, capacity, and queueing.

BUILD-OUT YEAR (2023) BACKGROUND

Existing TMCs were used with an applied annual growth rate of 1% compounded annually for the Build-Out Year Background volumes. The growth rate was developed from the MRCOG Metropolitan Transportation Plan (MTP) CUBE/2 Regional Model.

BUILD-OUT YEAR (2023) TOTAL

Site trips generated using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, were added to the Build-Out Year Background volumes for analysis.

BUILD-OUT YEAR (2023) OPTIMIZED

Traffic volumes based on the Build-Out Year Total scenario with optimized traffic signal timing and lane configurations where necessary to mitigate unacceptable LOS results shown in the Existing or Build-Out scenarios.

HORIZON YEAR (2033) BACKGROUND

Existing TMCs were used with an applied annual growth rate of 1% compounded annually for the Horizon Year Background volumes. This growth rate was developed from the MRCOG Metropolitan Transportation Plan (MTP) CUBE/2 Regional Model.

HORIZON YEAR (2033) TOTAL

Site trips generated using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, were added to the Horizon Year Background volumes for analysis.

LEVEL OF SERVICE AND 95TH PERCENTILE QUEUES

Highway Capacity Software (HCS) was used to analyze the study intersections for Level of Service (LOS) and 95th percentile queueing conditions. HCS implements methods and procedures detailed by the Highway Capacity Manual (HCM). Per the HCM, LOS is presented as a letter grade (A through F) based on the calculated average delay for an intersection or movement. Delay is calculated as a function of several variables, including signal phasing operations, cycle length, traffic volumes, and opposing traffic volumes, and is a measurement of the average wait time a driver can expect when moving through an intersection. Factors such as total cycle time (for all movements), queueing restrictions, and vehicle volumes can affect measurements of delay, especially for lower volume movements and side streets. Generally, these factors are only realized when delays reach or exceed LOS E thresholds.

As stipulated in the City of Albuquerque Development Process Manual and the ABC Comprehensive Plan for this analysis, acceptable levels of service (LOS) are defined as a LOS D or better. Intersection delay and level of service for stop-controlled intersections are reported as the delay and level of service for the worst-case movement at each intersection. Detailed HCS output sheets can be found in Appendix D. **Table 4** and **Table 5** below, reproduced from the Highway Capacity Manual, show delay thresholds and the associated Level of Service assigned to delay ranges.

Table 4: LOS Criteria and Descriptions for Signalized Intersections

Level of Service	Average Control Delay (sec/vehicle)	General Description (Signalized Intersections)
A	≤10	Free flow
B	>10 – 20	Stable flow (slight delays)
C	>20 – 35	Stable flow (acceptable delays)
D	>35 – 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 – 80	Unstable flow (intolerable delay)
F	>80	Forced flow (jammed)

Table 5:LOS Criteria and Descriptions for Unsignalized Intersections

Level of Service	Average Control Delay (sec/veh)
A	≤10
B	>10 – 15
C	>15 – 25
D	>25 – 35
E	>35 – 50
F	>50

Queue length is reported in feet for the 95th percentile queue, with a base assumption of 25 feet of queue length per vehicle. It should be noted that 95th percentile queues are statistically expected to occur during only 5% of the peak hour's signal cycles. The 95th percentile queue is a useful measure because it gives a picture of the maximum queue length likely to be present. The average queueing at an intersection would statistically be much shorter than the 95th percentile queue.

Existing Year (2022) Analyses

Existing Peak Hour Turning Movement Counts are shown in **Figure 6** and **Table 6** summarizes the intersection capacity and LOS analysis performed for existing conditions at the study intersections. Values within Table 6, shown in red, represent a result that falls below the acceptable threshold. Per HCM 6th Edition procedures, intersection peak hour factors for the system peak hour are derived from the collected traffic counts and are used in the Existing conditions analysis and all other scenarios. The current signal timings for intersections of 98th St and Blake Rd and Unser Blvd and Gibson Blvd were provided by the City of Albuquerque and were used in each analysis scenario. All other study intersections were stop-controlled under the Existing scenario.

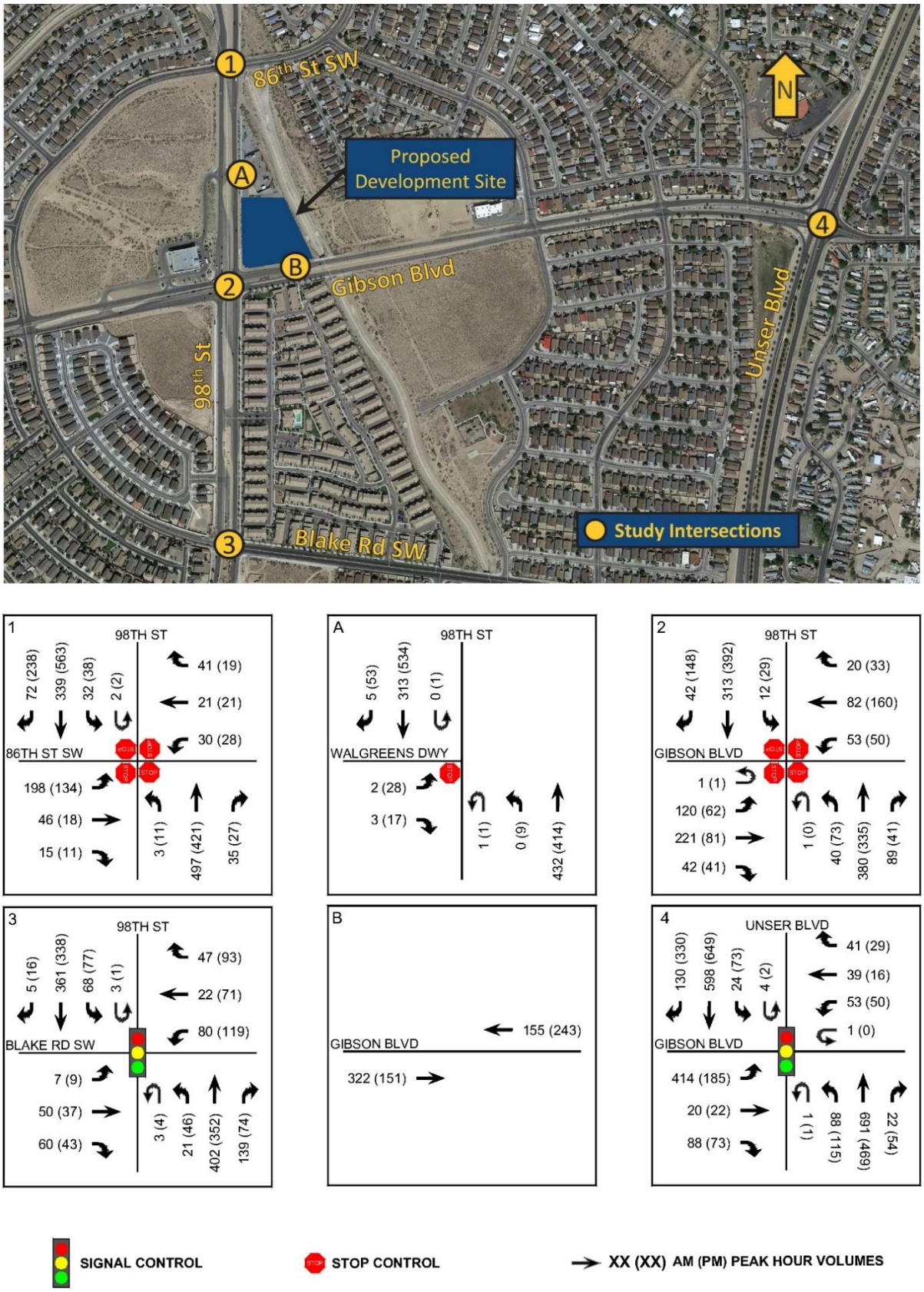


Figure 6: Existing Year (2022) Peak Hour Turning Movement Counts

Table 6: Existing (2022) HCS Results Summary

Existing Year (2022)														
Study Intersection	Queue, Delay, V/C, and LOS										Intersection LOS			
			AM				PM				AM		PM	
	Movement	Auxiliary Lane Length (ft)	95th Percentile Queue (ft)[2]	Delay (sec)	V/C	LOS	95th Percentile Queue (ft)	Delay (sec)	V/C	LOS	Delay (sec)	LOS	Delay (sec)	LOS
98th Street & 86th Street / De Anza Dr	EBT/L/R	---	187.5	36.5	0.74	E	55.0	18.4	0.43	C	26.8	B	70.0	F
	WBL	235	7.5	14.2	0.10	B	7.5	13.2	0.08	B				
	WBT/R	---	17.5	14.1	0.18	B	7.5	12.6	0.10	B				
	NBL	200	0.0	11.5	0.01	B	2.5	11.2	0.03	B				
	NBT	---	127.5	25.6	0.64	D	67.5	17.5	0.48	C				
	NBR	110	180.0	31.8	0.73	D	82.5	19.2	0.54	C				
	SBL	120	7.5	12.6	0.09	B	7.5	11.1	0.09	B				
	SBT	---	60.0	18.1	0.45	C	105.0	20.2	0.59	C				
	SBR	110	120.0	24.7	0.63	C	877.5	170.9	1.05	F				
98th Street & Site Driveway A / Walgreens' Driveway	EBT/L	---	0.0	12.2	0.00	B	7.5	15.7	0.08	C	10.5	B	13.7	B
	EBR	---	0.0	9.3	0.00	A	2.5	10.4	0.03	B				
	WBT/L/R	---	---	---	---	---	---	---	---	---				
	NBL	150	0.0	9.2	0.00	A	0.0	9.0	0.01	A				
	NBT/R	---	---	---	---	---	---	---	---	---				
	SBL	150	0.0	8.3	0.00	A	0.0	9.8	0.00	A				
	SBT/R	---	---	---	---	---	---	---	---	---				
98th Street & Gibson Blvd	EBL	400	35.0	15.9	0.33	C	15.0	13.7	0.17	B	21.5	C	23.9	C
	EBT	---	30.0	14.3	0.28	B	7.5	12.4	0.10	B				
	EBR	170	45.0	15.8	0.38	C	17.5	13.1	0.20	B				
	WBL	305	15.0	14.0	0.16	B	12.5	13.0	0.13	B				
	WBT	---	10.0	12.9	0.12	B	17.5	13.3	0.20	B				
	WBR	160	15.0	13.2	0.17	B	27.5	14.1	0.27	B				
	NBL	270	7.5	12.2	0.10	B	15.0	12.8	0.18	B				
	NBT	---	65.0	17.8	0.47	C	45.0	15.4	0.38	C				
	NBR	170	140.0	25.7	0.67	D	65.0	17.1	0.47	C				
	SBL	360	2.5	11.9	0.03	B	5.0	11.5	0.07	B				
	SBT	---	50.0	16.6	0.40	C	57.5	16.1	0.43	C				
	SBR	170	72.5	19.0	0.50	C	185.0	29.3	0.73	D				
98th Street & Blake Rd	EBL	220	5.4	19.8	0.01	B	6.3	19.8	0.02	B	28.8	C	24.7	C
	EBT/R	---	94.2	21.9	0.14	C	62.0	21.4	0.12	C				
	WBL	180	57.0	17.5	0.12	B	75.5	16.8	0.18	B				
	WBT/R	---	56.1	18.9	0.09	B	120.5	18.9	0.22	B				
	NBL	90	19.6	28.2	0.06	C	35.6	24.1	0.12	C				
	NBT	---	217.1	33.2	0.34	C	159.9	28.5	0.30	C				
	NBR	120	108.4	31.5	0.19	C	35.0	26.0	0.08	C				
	SBL	400	64.8	26.2	0.19	C	62.1	23.2	0.20	C				
	SBT	---	193.6	30.4	0.27	C	160.2	27.4	0.28	C				
	SBR	---	193.2	30.5	0.27	C	159.0	27.4	0.28	C				
Gibson Blvd & Unser Blvd	EBL	320	264.1	56.4	0.86	E	141.9	64.0	0.77	E	22.1	C	14.2	B
	EBT	---	21.3	38.3	0.05	D	28.5	49.7	0.09	D				
	EBR	---	---	0.0	---	A	---	0.0	---	A				
	WBL	70	64.2	45.9	0.20	D	65.8	50.7	0.20	D				
	WBT	---	49.5	49.4	0.20	D	22.7	53.6	0.09	D				
	WBR	---	---	0.0	---	A	---	0.0	---	A				
	NBL	450	45.4	11.5	0.18	B	48.7	8.0	0.21	A				
	NBT	---	220.4	14.3	0.34	B	121.4	9.6	0.20	A				
	NBR	---	---	0.0	---	A	---	0.0	---	A				
	SBL	300	13.5	12.4	0.06	B	31.1	7.9	0.11	A				
	SBT	---	202.1	15.3	0.31	B	185.6	10.9	0.29	B				
	SBR	---	---	0.0	---	A	---	0.0	---	A				

**Intersection LOS and delay for stop-controlled intersection, results are reported as the worst case movement*

[1]Double auxiliary lanes of the listed length

[2] For Stop Controlled intersections, 95% Queue Lengths have been converted from units of vehicles to units of feet using 25ft/Veh

From the above tables, the following conclusions are made for the Existing conditions analysis:

- For the intersection of 98th St and 86th St / De Anza
  - Capacity Analysis
    - Overall, the intersection operates at LOS B during the AM peak hour and at LOS F during the PM peak hour.
      - During the AM peak hour, the eastbound combined right/left/through movement operates at LOS E.
      - During the PM peak hour, the southbound right movement operates at LOS F
  - Queueing Analysis
    - Existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths except in the following cases:
      - Northbound right-turn lane during AM peak hour
      - Southbound right-turn lanes during the AM and PM peak hours
- For the intersection of 98th St and Walgreens' Driveway / Site Driveway A
  - Capacity Analysis
    - Overall, the intersection operates at a LOS of B during both the AM and PM peak. Individual approach movements LOS ranges from A to C.
  - Queueing Analysis
    - Where HCS results for queue lengths are present, existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths.
- For the intersection of 98th St and Gibson Blvd
  - Capacity Analysis
    - Overall, the intersection operates at a LOS of C during both the AM and PM peak. Individual approach movements LOS ranges from B to D.
  - Queueing Analysis
    - Existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths except in the following cases:
      - Southbound right-turn lanes during the PM peak hours.
- For the intersection of 98th St and Blake Rd
  - Capacity Analysis
    - Overall, the intersection operates at a LOS of C during both the AM and PM peak. Individual approach movements LOS ranges from B to C.
  - Queueing Analysis
    - Where HCS results for queue lengths are present, existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths.
- For the intersection of Gibson Blvd and Unser Blvd
  - Capacity Analysis
    - Overall, the intersection operates at LOS C during the AM peak hour and at LOS B during the PM peak hour.
      - During the AM and PM peak hours, the eastbound left-turn movement operates at LOS E.
  - Queueing Analysis
    - Where HCS results for queue lengths are present, existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths.

The following sections detail the methods and calculations used to obtain traffic volumes for Build-Out and Horizon Year analysis scenarios. This process used the following tools as described below: Traffic Projections

and Site Trip Distribution & Assignment. Figures at the end of this section show the resulting traffic volumes determined for future year analysis scenarios.

Traffic Projections

The development's construction is anticipated to begin in the current year (2022), with full completion expected in 2023. Build-Out Year (2023) volumes were forecast from existing traffic volumes using counted values from 2016 and travel demand models provided by MRCOG (updated) for 2040. These models were then compared using AM and PM peak hour direction volumes (AMPH LOAD and PMPH LOAD) to calculate anticipated growth rates for individual roadways near the study area. Values provided by MRCOG are reproduced verbatim in **Table 7** and were used the calculated growth rates used in the analysis. Subsequently these growth rates were then applied to the 2022 existing volumes to forecast future volumes for Build-Out and Horizon Year Analyses.

Table 7: Growth Rate Determination from MRCOG Regional Count & Projection Data

Roadway			MRCOG 2016 Model "Peak Hour Load"	MRCOG 2040 Model "Peak Hour Load"	Yearly Growth Rate	Average Yearly Growth	Growth Rate for Analysis
98th St North of 86th St	Northbound	AM	544	426	-1.01%	0.71%	1.00%
		PM	714	681	-0.20%		
	Southbound	AM	630	599	-0.21%		
		PM	665	540	-0.86%		
98th St Between 86th St & Gibson Blvd	Northbound	AM	431	398	-0.33%		
		PM	658	683	0.16%		
	Southbound	AM	552	571	0.14%		
		PM	563	491	-0.57%		
98th St Between Gibson Blvd & Blake Rd	Northbound	AM	331	471	1.48%		
		PM	677	858	0.99%		
	Southbound	AM	585	756	1.07%		
		PM	440	609	1.36%		
98th St South of Blake Rd	Northbound	AM	342	506	1.65%		
		PM	382	395	0.14%		
	Southbound	AM	271	337	0.91%		
		PM	413	568	1.34%		
86th St East of 98th St	Eastbound	AM	128	90	-1.46%		
		PM	100	138	1.35%		
	Westbound	AM	45	76	2.21%		
		PM	99	81	-0.83%		
De Anza Dr West of 98th St	Eastbound	AM	185	60	-4.58%		
		PM	91	65	-1.39%		
	Westbound	AM	67	46	-1.55%		
		PM	136	59	-3.42%		
Gibson Blvd Between Unser Blvd & 98th St	Eastbound	AM	312	339	0.35%		
		PM	313	288	-0.35%		
	Westbound	AM	242	265	0.38%		
		PM	422	460	0.36%		
Gibson Blvd West of 98th St	Eastbound	AM	533	478	-0.45%		
		PM	434	346	-0.94%		
	Westbound	AM	332	292	-0.53%		
		PM	685	575	-0.73%		
Blake Rd Between 98th St & Unser Blvd	Eastbound	AM	386	722	2.64%		
		PM	113	364	4.99%		
	Westbound	AM	61	269	6.38%		
		PM	380	785	3.07%		
Blake Rd East of Unser Blvd	Eastbound	AM	605	1041	2.29%		
		PM	209	558	4.18%		
	Westbound	AM	145	403	4.35%		
		PM	626	1127	2.48%		
Unser Blvd North of Gibson Blvd	Northbound	AM	518	741	1.50%		
		PM	519	922	2.42%		
	Southbound	AM	518	600	0.61%		
		PM	603	728	0.79%		
Unser Blvd Between Gibson Blvd & Blake Rd	Northbound	AM	375	488	1.10%		
		PM	522	769	1.63%		
	Southbound	AM	440	392	-0.48%		
		PM	677	577	-0.66%		
Unser Blvd South of Blake Rd	Northbound	AM	354	340	-0.17%		
		PM	495	630	1.01%		
	Southbound	AM	284	499	2.38%		
		PM	360	585	2.04%		

The growth rate from the MRCOG traffic volume projection data was used to predict traffic volumes for the Build-Out and Horizon Year scenarios. The predicted turning movement volumes were used for the Build-Out and Horizon Year Background scenarios. Traffic volumes used for the Build-Out and Horizon Year Total scenarios were produced by adding the proposed development site's generated trips to the Build-Out and Horizon Year Background volumes.

Trip Generation

Trip generation for the Development was performed using the procedures and methodologies provided in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition. The land use category Convenience Store/Gas Station (ITE 945) was used to generate trips for the Development. Weekday trips were calculated using Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. and Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. generators. Trips generated by the proposed development are shown below in the tables. Pass-by trips for the development site were generated using data and procedures according to the Institute of Transportation Engineer's Trip Generation Manual. Site-generated trips were added to the Background traffic volumes to create the Total Build-Out traffic volumes. **Table 8** below shows the trip generation and associated calculations.

Table 8: ITE Trip Generation

ITE Land Use	Units		PEAK HOUR TRIPS									
			AM Peak			PM Peak			AM Peak		PM Peak	
			Rate	Enter	Exit	Rate	Enter	Exit	In	Out	In	Out
ITE 945 - Gas Station / Convenience Store	24	Fueling Positions	31.60	50%	50%	26.90	50%	50%	379	380	323	323
Average Pass-By Trips	AM	76%	PM	75%				Total Pass-By Trips	288	289	242	242
								Total Direct Trips	91	91	81	81

Trip Distribution and Assignment

The distribution of the proposed site generated traffic was broken into two categories Direct and Pass-By Trips. From the ITE Trip Generation Manual, 11th Edition for the proposed land use, 76% of AM and 75% of PM generated trips can be expected to be Pass-By trips. For local direct trips, trip distribution was determined based on the analysis of existing intersection demand characteristics within the study area. These direct trips were routed within the roadway network to and from the development based on the proportions of existing turning movement counts/demands. **Figure 7** shows the trip distribution for Direct Trips generated by the Development and **Figure 8** shows Pass-by trips.

Please note, when the applied distribution percentages did not result in a whole number of vehicles and rounded values did not summate equivalent to the total generated trips, rounding preference was assigned to the movement with the highest existing turning movement count volumes.

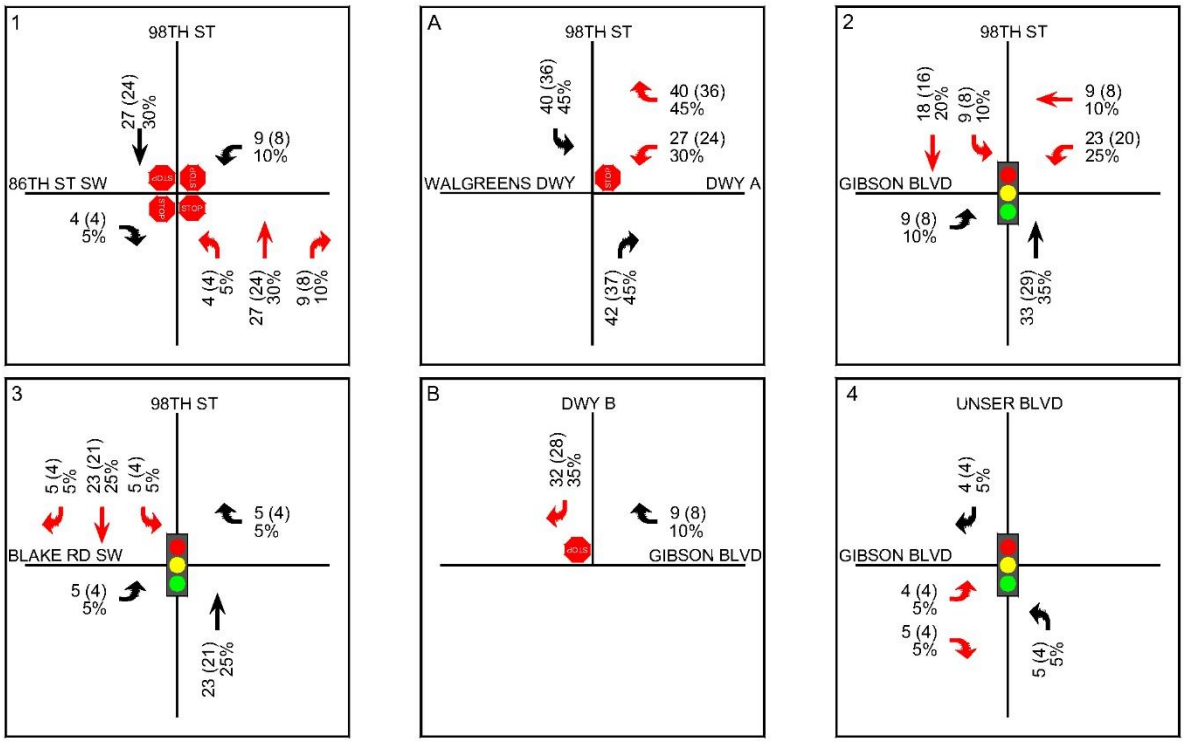


Figure 7: Direct Trip Distribution

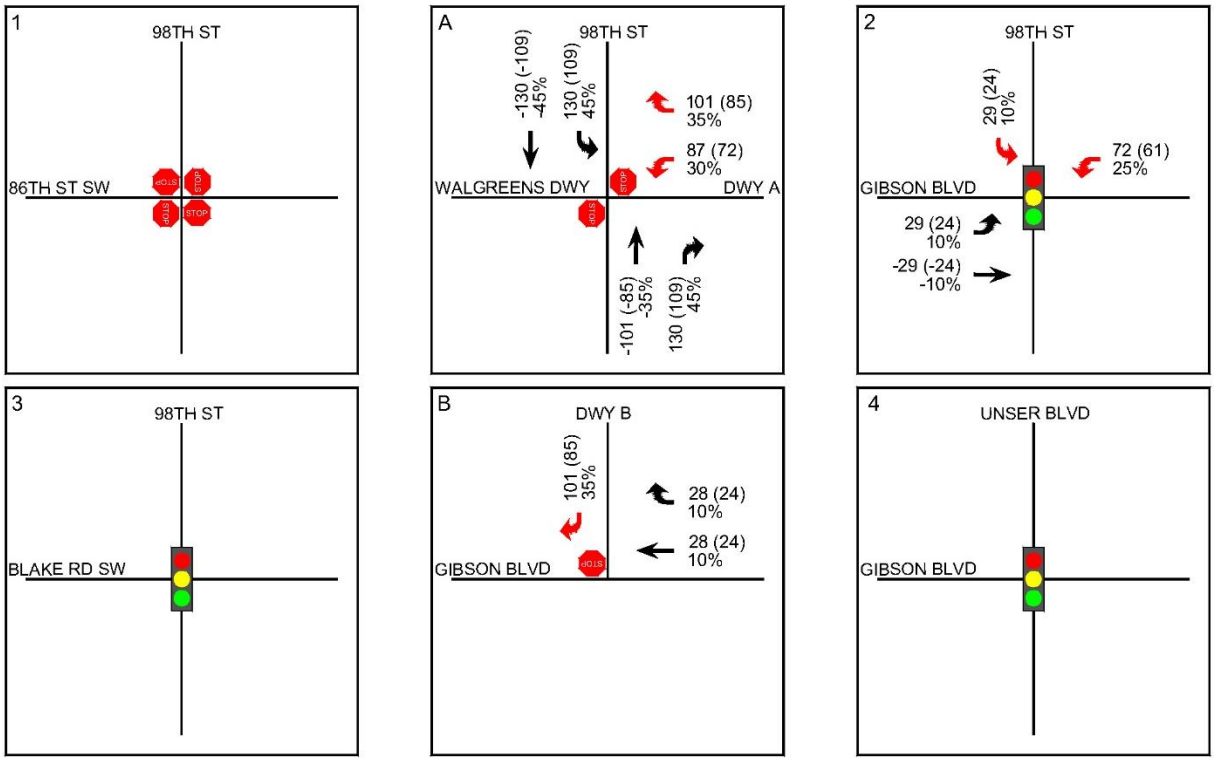


Figure 8: Pass-By Trip Distribution

BUILD-OUT YEAR BACKGROUND AND TOTAL ANALYSES

As performed for Existing Background conditions, a Level of Service (LOS) and queueing analysis was performed for the Build-Out Year analysis scenarios using the same procedures, field data, and assumptions with the following considerations.

The City of Albuquerque plans to convert the intersection of 98th St and Gibson Blvd from an all-way-stop controlled intersection into a signalized intersection by the end of the Build-Out Year (2023). Additionally, the intersection of 98th St and 86th St met the signal warrant analysis preformed as part of this TIS effort and is recommended to be considered for signalization.

For these reasons, both intersections were treated as signalized for the purposes of Build-Out and Horizon Year analyses. Signal timings used for the analysis were developed from the signal timing settings provided by COA for the intersection of 98th St and Blake Rd. Due to this shift from stop to signal controlled operations between Existing and Build-Out Year analyses some movements saw operational improvement or deterioration, which would not ordinarily be expected between these scenarios based solely on projected volume increases. Intersection geometry was analyzed as present under existing conditions with recommended geometry outlined under Mitigated/Optimized Conditions analysis.

BUILD-OUT YEAR (2023) BACKGROUND CONDITIONS

As discussed in the previous Analysis Scenarios and Volume Calculations subsection the Build-Out Year Background traffic volumes are determined from the application of a 1% growth rate to the Existing traffic movement count data to analyze probable roadway conditions in the Build-Out Year in the absence of the proposed development. The turning movement volumes used for this analysis scenario are shown in **Figure 9**.

Table 9 below summarizes the intersection delay, LOS, and 95th percentile queue length conditions under Build-Out Year Background conditions. Values within Table 9, shown in red, represent a result that falls below the acceptable threshold. Detailed HCS capacity and queuing analysis output sheets showing all individual movements can be found in Appendix D.

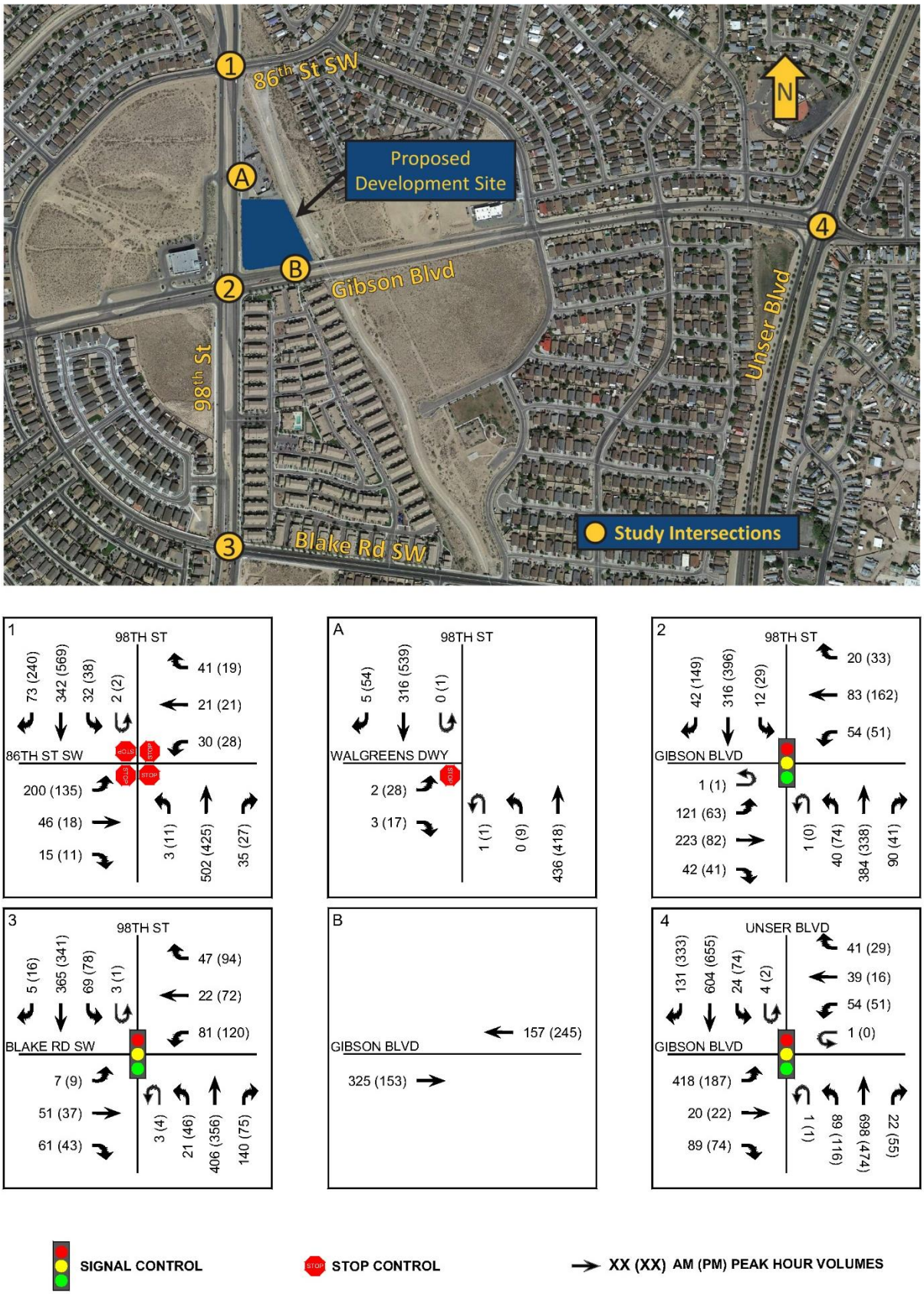


Figure 9: Build-Out Year (2023) - Background Traffic Volumes

Table 9: HCS Result Summary for Build-Out Year (2023) Background Conditions

Build-Out Year - Background (2023)														
Study Intersection	Queue, Delay, V/C, and LOS										Intersection LOS			
			AM				PM				AM		PM	
	Movement	Auxiliary Lane Length (ft)	95th Percentile Queue (ft)[2]	Delay (sec)	V/C	LOS	95th Percentile Queue (ft)	Delay (sec)	V/C	LOS	Delay (sec)	LOS	Delay (sec)	LOS
98th Street & 86th Street / De Anza Dr	EBT/L/R	---	4429.6	6494.5	4.56	F	2195.3	2596.1	2.39	F	1289.0	F	300.7	F
	WBL	235	21.7	32.7	0.36	C	17.2	27.6	0.30	C				
	WBT/R	---	46.5	16.6	0.08	B	24.6	14.7	0.05	B				
	NBL	200	2.7	27.2	0.01	C	8.5	24.6	0.04	C				
	NBT	---	259.2	32.6	0.40	C	193.4	28.3	0.35	C				
	NBR	110	34.3	27.9	0.06	C	22.4	24.9	0.05	C				
	SBL	120	30.4	26.5	0.11	C	29.4	22.3	0.11	C				
	SBT	---	173.8	29.0	0.26	C	244.1	27.8	0.44	C				
	SBR	110	71.8	27.4	0.12	C	218.2	28.7	0.42	C				
98th Street & Site Driveway A / Walgreens' Driveway	EBT/L	---	0.0	12.3	0.00	B	7.5	15.8	0.08	C	10.5	B	13.8	B
	EBR	---	0.0	9.3	0.00	A	2.5	10.5	0.03	B				
	WBT/L/R	---	---	---	---	---	---	---	---	---				
	NBL	150	0.0	9.2	0.00	A	0.0	9.1	0.01	A				
	NBT/R	---	---	---	---	---	---	---	---	---				
	SBL	150	0.0	8.3	0.00	A	0.0	9.8	0.00	A				
	SBT/R	---	---	---	---	---	---	---	---	---				
98th Street & Gibson Blvd	EBL	400	91.6	18.6	0.18	B	39.5	16.7	0.10	B	26.4	C	24.5	C
	EBT	---	90.3	20.9	0.14	C	27.5	18.2	0.05	B				
	EBR	170	33.7	20.1	0.06	C	28.4	18.4	0.06	B				
	WBL	305	40.1	19.2	0.09	B	31.6	17.0	0.08	B				
	WBT	---	34.7	21.1	0.06	C	56.9	19.1	0.11	B				
	WBR	160	16.1	20.8	0.03	C	22.6	18.6	0.05	B				
	NBL	270	35.8	26.2	0.10	C	55.6	22.8	0.19	C				
	NBT	---	199.9	30.0	0.30	C	145.8	26.1	0.27	C				
	NBR	170	89.8	28.3	0.15	C	33.4	24.0	0.07	C				
	SBL	360	11.7	27.4	0.04	C	23.8	24.2	0.08	C				
	SBT	---	165.2	30.6	0.25	C	181.6	28.7	0.34	C				
	SBR	170	41.9	28.4	0.08	C	138.8	28.8	0.28	C				
98th Street & Blake Rd	EBL	220	5.5	19.8	0.01	B	6.2	19.2	0.02	B	28.9	C	24.2	C
	EBT/R	---	96.2	21.9	0.15	C	60.8	20.8	0.12	C				
	WBL	180	57.7	17.5	0.13	B	74.5	16.3	0.18	B				
	WBT/R	---	56.1	18.9	0.09	B	122.0	18.9	0.22	B				
	NBL	90	19.6	28.3	0.06	C	35.4	23.8	0.12	C				
	NBT	---	219.2	33.3	0.34	C	157.6	27.7	0.30	C				
	NBR	120	109.6	31.5	0.19	C	34.3	25.5	0.08	C				
	SBL	400	65.7	26.2	0.20	C	61.8	22.6	0.20	C				
	SBT	---	195.5	30.5	0.28	C	160.2	27.0	0.28	C				
	SBT/R	---	195.0	30.5	0.28	C	159.1	27.1	0.28	C				
Gibson Blvd & Unser Blvd	EBL	320	266.5	56.6	0.86	E	144.0	64.3	0.78	E	22.2	C	14.3	B
	EBT	---	21.3	38.2	0.05	D	28.5	49.7	0.09	D				
	EBR	---	---	0.0	---	A	---	0.0	---	A				
	WBL	70	65.3	45.8	0.20	D	67.1	50.7	0.20	D				
	WBT	---	49.5	49.4	0.20	D	22.7	53.6	0.09	D				
	WBR	---	---	0.0	---	A	---	0.0	---	A				
	NBL	450	46.2	11.6	0.18	B	49.3	8.0	0.21	A				
	NBT	---	220.3	14.4	0.34	B	123.3	9.7	0.21	A				
	NBR	---	---	0.0	---	A	---	0.0	---	A				
	SBL	300	13.6	12.5	0.06	B	31.6	8.0	0.12	A				
	SBT	---	204.6	15.4	0.31	B	188.2	10.9	0.29	B				
	SBR	---	---	0.0	---	A	---	0.0	---	A				

**Intersection LOS and delay for stop-controlled intersection, results are reported as the worst case movement*

[1]Double auxiliary lanes of the listed length

[2] For Stop Controlled intersections, 95% Queue Lengths have been converted from units of vehicles to units of feet using 25ft/Veh

From the above tables, the following conclusions are made for the Build-Out Year Background conditions analysis:

- For the intersection of 98th St and 86th St / De Anza
  - Capacity Analysis
    - Overall, the intersection operates at LOS F during the AM and PM peak hours.
      - During the AM and PM peak hours, the eastbound combined right/left/through movement operates at LOS F.
  - Queueing Analysis
    - Existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths except in the following cases:
      - Southbound right-turn lane during the PM peak hour
- For the intersection of 98th St and Walgreens' Driveway / Site Driveway A
  - Capacity Analysis
    - Overall, the intersection operates at a LOS of B during both the AM and PM peak. Individual approach movements LOS ranges from A to C.
  - Queueing Analysis
    - Where HCS results for queue lengths are present, existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths.
- For the intersection of 98th St and Gibson Blvd
  - Capacity Analysis
    - Overall, the intersection operates at a LOS of C during both the AM and PM peak. Individual approach movements LOS ranges from B to C.
  - Queueing Analysis
    - Existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths in all cases.
- For the intersection of 98th St and Blake Rd
  - Capacity Analysis
    - Overall, the intersection operates at a LOS of C during both the AM and PM peak. Individual approach movements LOS ranges from B to C.
  - Queueing Analysis
    - Where HCS results for queue lengths are present, existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths.
- For the intersection of Gibson Blvd and Unser Blvd
  - Capacity Analysis
    - Overall, the intersection operates at LOS C during the AM peak hour and at LOS B during the PM peak hour.
      - During the AM and PM peak hours, the eastbound left-turn movement operates at LOS E.
  - Queueing Analysis
    - Where HCS results for queue lengths are present, existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths.

Build-Out Year (2023) Total Conditions

As previously discussed, the Build-Out Year Total traffic volumes are determined from the application of a 1% growth rate to the Existing traffic movement count data with the addition of the site-generated trips to analyze probable roadway conditions with the presence of the proposed development. The turning movement volumes used for this analysis scenario are shown in **Figure 10**.

Table 10 summarizes the intersection delay, LOS, and 95th percentile queue lengths under Build-Out Year Total conditions. Values within Table 10, shown in red, represent a result that falls below the acceptable threshold.

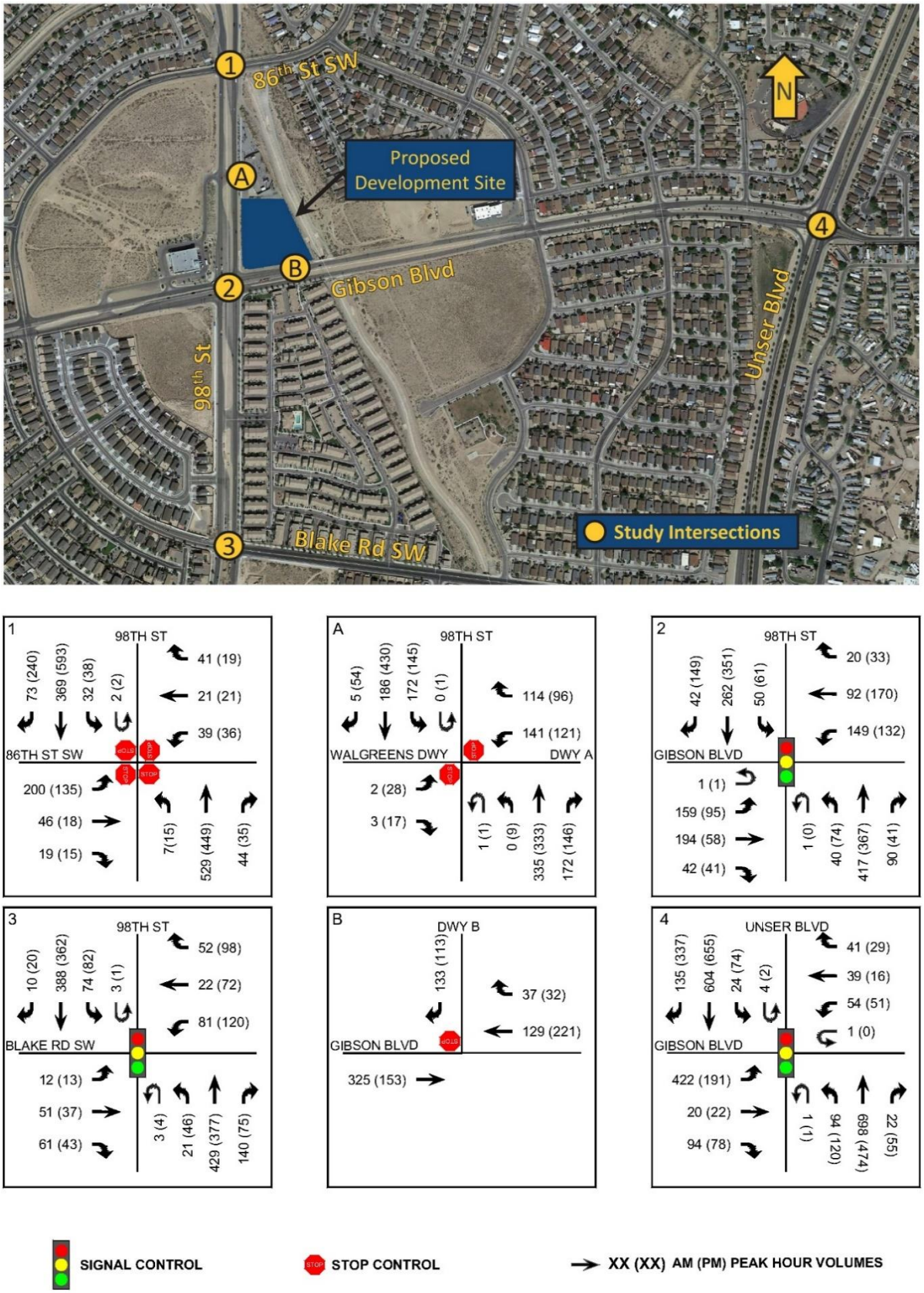


Figure 10: HCS Result Summary for Build-Out Year (2023) Total Conditions

Table 10: HCS Result Summary for Build-Out Year (2023) Total Conditions

Build-Out Year - Total (2023)														
Study Intersection	Queue, Delay, V/C, and LOS										Intersection LOS			
			AM				PM				AM		PM	
	Movement	Auxiliary Lane Length (ft)	95th Percentile Queue (ft)[2]	Delay (sec)	V/C	LOS	95th Percentile Queue (ft)	Delay (sec)	V/C	LOS	Delay (sec)	LOS	Delay (sec)	LOS
98th Street & 86th Street / De Anza Dr	EBT/L/R	---	4512.3	6667.4	4.65	F	2271.2	2676.6	2.44	F	1268.9	F	303.6	F
	WBL	235	28.3	32.8	0.43	C	22.2	27.7	0.36	C				
	WBT/R	---	46.5	16.6	0.08	B	24.6	14.7	0.05	B				
	NBL	200	6.4	27.2	0.02	C	11.6	24.6	0.06	C				
	NBT	---	272.5	32.9	0.42	C	203.1	28.6	0.37	C				
	NBR	110	43.3	28.1	0.08	C	29.2	25.0	0.07	C				
	SBL	120	30.5	26.8	0.11	C	29.6	22.5	0.11	C				
	SBT	---	190.1	29.5	0.28	C	255.1	28.3	0.46	C				
	SBR	110	72.2	27.7	0.13	C	219.1	28.9	0.42	C				
98th Street & Site Driveway A / Walgreens' Driveway	EBT/L	---	0.0	17.9	0.01	C	10.0	22.9	0.13	C	17.0	C	18.1	C
	EBR	---	0.0	8.9	0.00	A	2.5	10.0	0.02	B				
	WBT/L	---	47.5	24.0	0.40	C	40.0	24.2	0.35	C				
	WBR	---	20.0	11.4	0.21	B	15.0	10.9	0.17	B				
	NBL	150	0.0	8.4	0.00	A	0.0	8.6	0.01	A				
	NBT/R	---	---	---	---	---	---	---	---	---				
	SBL	150	17.5	9.3	0.18	A	12.5	9.0	0.15	A				
	SBT/R	---	---	---	---	---	---	---	---	---				
98th Street & Gibson Blvd	EBL	400	133.7	21.0	0.24	C	63.2	18.3	0.16	B	26.8	C	24.6	C
	EBT	---	83.6	23.3	0.13	C	20.7	20.2	0.04	C				
	EBR	170	36.3	22.7	0.06	C	30.4	20.5	0.07	C				
	WBL	305	111.0	18.7	0.24	B	83.7	17.1	0.19	B				
	WBT	---	38.5	21.1	0.06	C	60.9	19.7	0.12	B				
	WBR	160	16.1	20.8	0.03	C	23.0	19.2	0.05	B				
	NBL	270	36.5	26.9	0.10	C	56.5	23.3	0.18	C				
	NBT	---	221.7	32.5	0.34	C	165.3	27.9	0.31	C				
	NBR	170	93.3	30.3	0.16	C	35.4	25.4	0.08	C				
	SBL	360	48.4	26.9	0.15	C	49.4	23.7	0.17	C				
	SBT	---	134.6	30.0	0.21	C	158.7	28.2	0.30	C				
	SBR	170	41.9	28.4	0.08	C	138.9	28.8	0.29	C				
98th Street & Blake Rd	EBL	220	9.3	19.7	0.02	B	8.9	19.1	0.02	B	29.3	C	24.8	C
	EBT/R	---	96.2	21.9	0.15	C	60.8	20.8	0.12	C				
	WBL	180	57.7	17.5	0.13	B	74.5	16.3	0.18	B				
	WBT/R	---	60.8	19.2	0.10	B	125.9	19.2	0.23	B				
	NBL	90	19.7	28.5	0.06	C	35.7	24.2	0.12	C				
	NBT	---	231.2	33.8	0.37	C	173.4	28.9	0.33	C				
	NBR	120	110.2	31.8	0.19	C	36.0	26.2	0.08	C				
	SBL	400	70.7	26.4	0.22	C	64.4	22.4	0.21	C				
	SBT	---	208.9	30.9	0.30	C	173.4	27.3	0.30	C				
	SBT/R	---	208.0	30.9	0.30	C	171.5	27.4	0.30	C				
Gibson Blvd & Site Driveway B	EBT	---	---	---	---	---	---	---	---	---	9.5	A	9.7	A
	WBT	---	---	---	---	---	---	---	---	---				
	WBR	---	---	---	---	---	---	---	---	---				
	SBR	---	12.5	9.5	0.15	A	12.5	9.7	0.14	A				
Gibson Blvd & Unser Blvd	EBL	320	269.0	56.8	0.86	E	147.8	64.8	0.78	E	22.3	C	14.4	B
	EBT	---	21.3	38.1	0.05	D	28.4	49.6	0.09	D				
	EBR	---	---	0.0	---	A	---	0.0	---	A				
	WBL	70	65.3	45.8	0.20	D	67.1	50.7	0.20	D				
	WBT	---	49.5	49.4	0.20	D	22.7	53.6	0.09	D				
	WBR	---	---	0.0	---	A	---	0.0	---	A				
	NBL	450	48.9	11.6	0.19	B	51.1	8.1	0.22	A				
	NBT	---	223.9	14.5	0.35	B	123.9	9.7	0.21	A				
	NBR	---	---	0.0	---	A	---	0.0	---	A				
	SBL	300	13.7	12.6	0.06	B	31.8	8.1	0.12	A				
	SBT	---	205.8	15.6	0.32	B	189.1	11.1	0.29	B				
	SBR	---	---	0.0	---	A	---	0.0	---	A				

**Intersection LOS and delay for stop-controlled intersection, results are reported as the worst case movement*

[1]Double auxiliary lanes of the listed length

[2] For Stop Controlled intersections, 95% Queue Lengths have been converted from units of vehicles to units of feet using 25ft/Veh

From the above table, the following conclusions are made for the Build-Out Year Total conditions analysis:

- For the intersection of 98th St and 86th St / De Anza
  - Capacity Analysis
    - Overall, the intersection operates at LOS F during the AM and PM peak hours.
      - During the AM and PM peak hours, the eastbound combined right/left/through movement operates at LOS F.
  - Queueing Analysis
    - Existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths except in the following cases:
      - Southbound right-turn lane during the PM peak hour
- For the intersection of 98th St and Walgreens' Driveway / Site Driveway A
  - Capacity Analysis
    - Overall, the intersection operates at a LOS of C during both the AM and PM peak. Individual approach movements LOS ranges from A to C.
  - Queueing Analysis
    - Where HCS results for queue lengths are present, existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths.
- For the intersection of 98th St and Gibson Blvd
  - Capacity Analysis
    - Overall, the intersection operates at a LOS of C during both the AM and PM peak. Individual approach movements LOS ranges from B to C.
  - Queueing Analysis
    - Existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths in all cases.
- For the intersection of 98th St and Blake Rd
  - Capacity Analysis
    - Overall, the intersection operates at a LOS of C during both the AM and PM peak. Individual approach movements LOS ranges from B to C.
  - Queueing Analysis
    - Where HCS results for queue lengths are present, existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths.
- For the intersection of Gibson Blvd and Site Driveway B
  - Capacity Analysis
    - Overall, the intersection operates at a LOS of A during both the AM and PM peak for the single movement which experiences delay based on HCM methodology.
  - Queueing Analysis
    - Existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths in all cases.
- For the intersection of Gibson Blvd and Unser Blvd
  - Capacity Analysis
    - Overall, the intersection operates at LOS C during the AM peak hour and at LOS B during the PM peak hour.
      - During the AM and PM peak hours, the eastbound left-turn movement operates at LOS E.
  - Queueing Analysis
    - Where HCS results for queue lengths are present, existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths.

HORIZON YEAR BACKGROUND AND TOTAL ANALYSES

A Level of Service (LOS) and queueing analysis was performed for Horizon Year analysis scenarios using the same procedures, field data, and assumptions as used for the previous analyses.

HORIZON YEAR (2033) BACKGROUND CONDITIONS

As discussed in the previous Analysis Scenarios and Volume Calculations subsection, the Horizon Year Background traffic volumes were determined by applying a 1% compound growth rate to the Existing traffic movement count data to analyze probable roadway conditions in the Horizon Year in the absence of the proposed development. The turning movement volumes used for this analysis scenario are shown in **Figure 11**.

Table 11 below summarizes the intersection delay, LOS, and 95th percentile queue lengths under Horizon Year Background conditions. Values within Table 11, shown in red, represent a result that falls below the acceptable threshold.

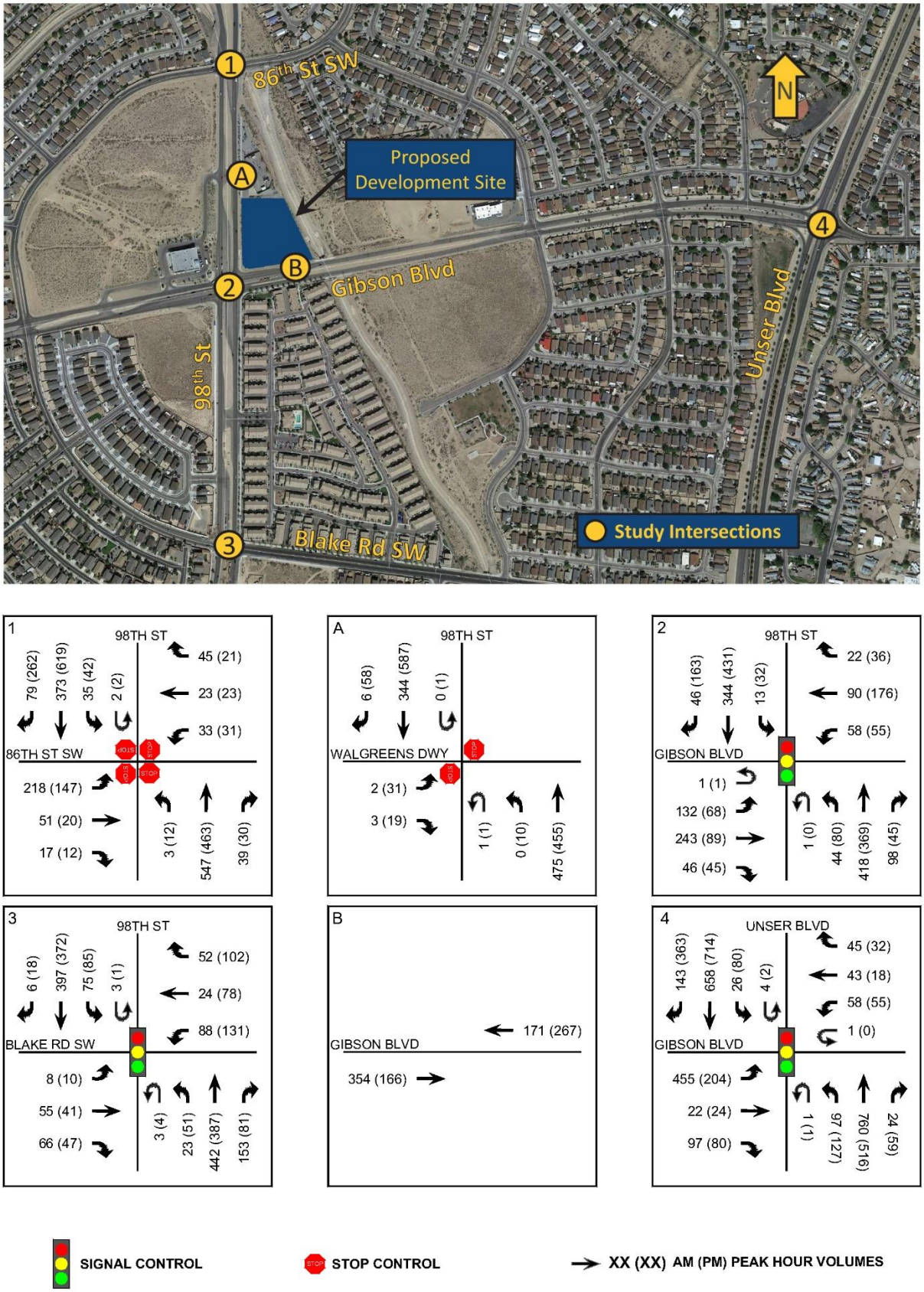


Figure 11: Horizon Year (2033) Background Traffic Volumes

Table 11: HCS Result Summary for Horizon Year (2033) Background Conditions

Horizon Year - Background (2033)														
Study Intersection	Queue, Delay, V/C, and LOS										Intersection LOS			
			AM				PM				AM		PM	
	Movement	Auxiliary Lane Length (ft)	95th Percentile Queue (ft)[2]	Delay (sec)	V/C	LOS	95th Percentile Queue (ft)	Delay (sec)	V/C	LOS	Delay (sec)	LOS	Delay (sec)	LOS
98th Street & 86th Street / De Anza Dr	EBT/L/R	---	5038.5	8264.7	5.53	F	2512.9	2984.9	2.61	F	1289.0	F	300.7	F
	WBL	235	23.9	32.7	0.38	C	19.1	27.7	0.32	C				
	WBT/R	---	51.2	16.6	0.08	B	27.1	14.7	0.05	B				
	NBL	200	2.7	27.4	0.01	C	9.3	24.8	0.05	C				
	NBT	---	281.9	33.4	0.44	C	209.3	28.9	0.39	C				
	NBR	110	38.4	28.2	0.07	C	25.0	25.0	0.06	C				
	SBL	120	33.2	26.7	0.12	C	32.6	22.4	0.13	C				
	SBT	---	191.4	29.3	0.28	C	265.3	28.5	0.48	C				
	SBR	110	78.1	27.6	0.13	C	238.0	29.6	0.46	C				
98th Street & Site Driveway A / Walgreens' Driveway	EBT/L	---	0.0	12.7	0.00	B	7.5	16.9	0.10	C	10.7	B	14.6	B
	EBR	---	0.0	9.4	0.00	A	2.5	10.7	0.03	B				
	WBT/L/R	---	---	---	---	---	---	---	---	---				
	NBL	150	0.0	9.4	0.00	A	0.0	9.3	0.01	A				
	NBT/R	---	---	---	---	---	---	---	---	---				
	SBL	150	0.0	8.4	0.00	A	0.0	10.1	0.00	B				
	SBT/R	---	---	---	---	---	---	---	---	---				
98th Street & Gibson Blvd	EBL	400	101.0	18.9	0.19	B	30.1	9.6	0.09	A	26.5	C	31.4	C
	EBT	---	99.4	21.2	0.15	C	21.3	10.7	0.04	B				
	EBR	170	37.1	20.3	0.06	C	22.2	10.8	0.05	B				
	WBL	305	43.0	19.2	0.10	B	23.8	9.8	0.07	A				
	WBT	---	37.6	21.1	0.06	C	44.3	11.3	0.09	B				
	WBR	160	17.7	20.9	0.03	C	17.6	11.0	0.04	B				
	NBL	270	39.4	26.2	0.11	C	75.4	33.6	0.35	C				
	NBT	---	215.7	30.5	0.33	C	196.3	38.4	0.48	D				
	NBR	170	98.4	28.6	0.17	C	44.5	35.1	0.13	D				
	SBL	360	12.7	27.6	0.04	C	33.0	35.6	0.16	D				
	SBT	---	182.2	31.1	0.28	C	233.9	42.7	0.64	D				
	SBR	170	46.2	28.7	0.08	C	186.9	42.6	0.54	D				
98th Street & Blake Rd	EBL	220	6.2	20.0	0.01	B	6.9	19.4	0.02	B	29.4	C	24.9	C
	EBT/R	---	105.1	22.3	0.16	C	67.7	21.2	0.13	C				
	WBL	180	62.9	17.6	0.14	B	82.0	16.4	0.20	B				
	WBT/R	---	62.2	19.1	0.10	B	133.6	19.2	0.24	B				
	NBL	90	21.6	28.5	0.07	C	39.4	24.0	0.14	C				
	NBT	---	237.9	34.1	0.38	C	177.7	28.8	0.33	C				
	NBR	120	125.5	32.2	0.22	C	71.1	27.0	0.15	C				
	SBL	400	71.7	26.4	0.22	C	67.5	22.8	0.22	C				
	SBT	---	211.3	31.0	0.30	C	178.1	27.7	0.30	C				
	SBT/R	---	210.7	31.0	0.30	C	176.6	27.7	0.31	C				
Gibson Blvd & Unser Blvd	EBL	320	290.3	58.3	0.87	E	160.8	66.5	0.79	E	23.3	C	14.9	B
	EBT	---	23.2	37.5	0.05	D	31.0	49.5	0.10	D				
	EBR	---	---	0.0	---	A	---	0.0	---	A				
	WBL	70	70.1	45.7	0.21	D	72.3	50.5	0.21	D				
	WBT	---	54.7	49.5	0.22	D	25.5	53.7	0.10	D				
	WBR	---	---	0.0	---	A	---	0.0	---	A				
	NBL	450	51.9	12.3	0.21	B	55.5	8.5	0.24	A				
	NBT	---	249.7	15.6	0.39	B	139.5	10.2	0.23	B				
	NBR	---	---	0.0	---	A	---	0.0	---	A				
	SBL	300	15.3	13.4	0.07	B	35.1	8.3	0.13	A				
	SBT	---	228.8	16.7	0.35	B	209.3	11.7	0.32	B				
	SBR	---	---	0.0	---	A	---	0.0	---	A				

**Intersection LOS and delay for stop-controlled intersection, results are reported as the worst case movement*

[1]Double auxiliary lanes of the listed length

[2] For Stop Controlled intersections, 95% Queue Lengths have been converted from units of vehicles to units of feet using 25ft/Veh

From the above table, the following conclusions are made for the Horizon Year Background conditions analysis:

- For the intersection of 98th St and 86th St / De Anza
  - Capacity Analysis
    - Overall, the intersection operates at LOS F during the AM and PM peak hours.
      - During the AM and PM peak hours, the eastbound combined right/left/through movement operates at LOS F.
  - Queueing Analysis
    - Existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths except in the following cases:
      - Southbound right-turn lane during the PM peak hour
- For the intersection of 98th St and Walgreens' Driveway / Site Driveway A
  - Capacity Analysis
    - Overall, the intersection operates at a LOS of B during both the AM and PM peak. Individual approach movements LOS ranges from A to C.
  - Queueing Analysis
    - Where HCS results for queue lengths are present, existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths.
- For the intersection of 98th St and Gibson Blvd
  - Capacity Analysis
    - Overall, the intersection operates at a LOS of C during both the AM and PM peak. Individual approach movements LOS ranges from B to C.
  - Queueing Analysis
    - Existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths in all cases.
- For the intersection of 98th St and Blake Rd
  - Capacity Analysis
    - Overall, the intersection operates at a LOS of C during both the AM and PM peak. Individual approach movements LOS ranges from B to C.
  - Queueing Analysis
    - Where HCS results for queue lengths are present, existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths.
- For the intersection of Gibson Blvd and Unser Blvd
  - Capacity Analysis
    - Overall, the intersection operates at LOS C during the AM peak hour and at LOS B during the PM peak hour.
      - During the AM and PM peak hours, the eastbound left-turn movement operates at LOS E.
  - Queueing Analysis
    - Where HCS results for queue lengths are present, existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths.

Horizon Year (2033) Total Conditions

The Horizon Year Total analysis assesses the probable roadway conditions in the Horizon Year with the addition of the proposed development's contribution to the study area traffic volumes. The turning movement volumes used for this analysis scenario are shown in Figure 12.

Table 12 below summarizes the intersection delay, LOS, and 95th percentile queue lengths under Horizon Year Total conditions. Values within Table 12, shown in red, represent a result that falls below the acceptable threshold.

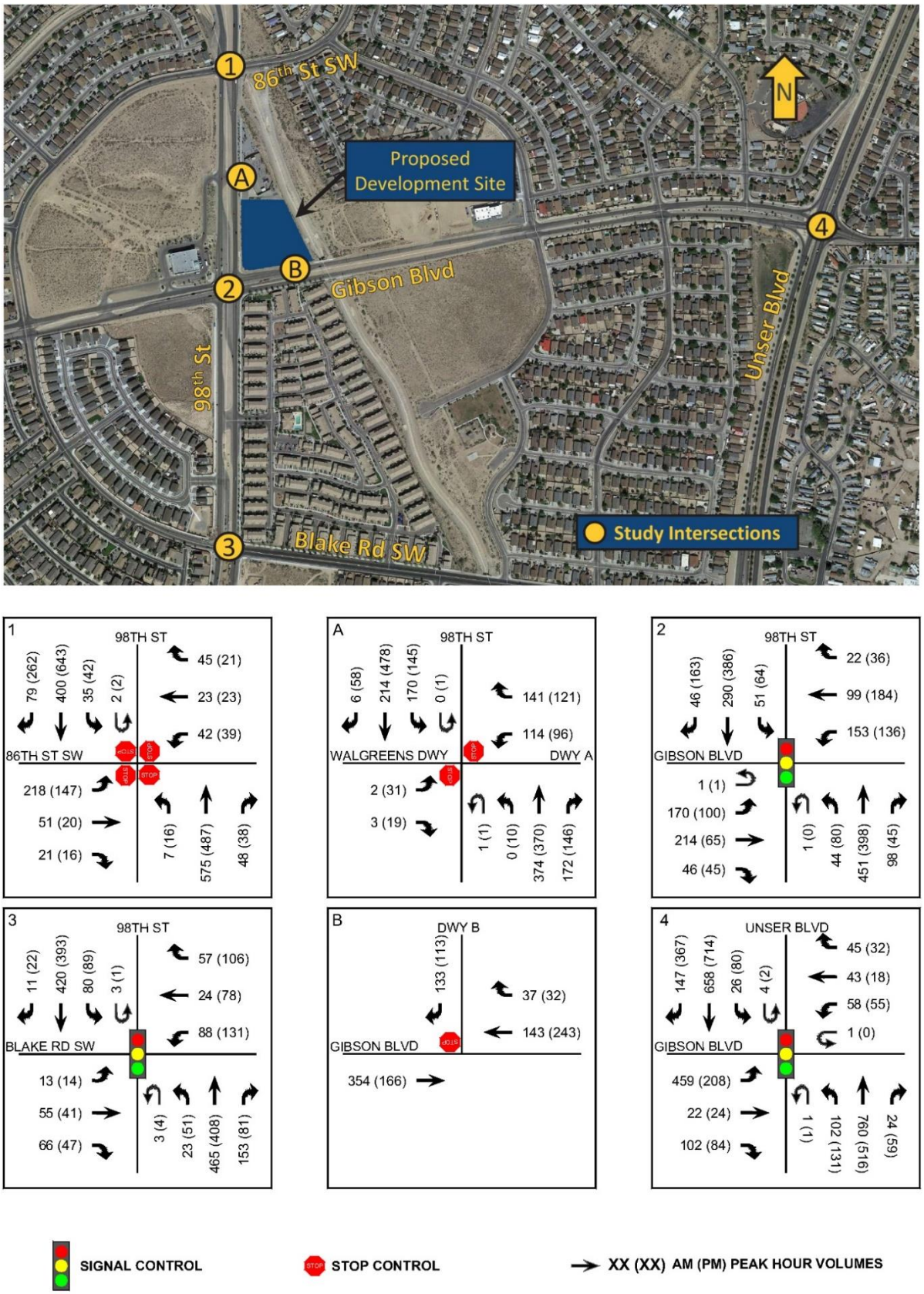


Figure 12: Horizon Year (2033) Total Traffic Volumes

Table 12: HCS Result Summary for Horizon Year (2033) Total Conditions

Horizon Year - Total (2033)														
Study Intersection	Queue, Delay, V/C, and LOS										Intersection LOS			
			AM				PM				AM		PM	
	Movement	Auxiliary Lane Length (ft)	95th Percentile Queue (ft)[2]	Delay (sec)	V/C	LOS	95th Percentile Queue (ft)	Delay (sec)	V/C	LOS	Delay (sec)	LOS	Delay (sec)	LOS
98th Street & 86th Street / De Anza Dr	EBT/L/R	---	5119.7	8461.8	5.64	F	2588.1	3065.4	2.65	F	1615.3	F	345.3	F
	WBL	235	30.5	32.8	0.45	C	24.1	27.7	0.38	C				
	WBT/R	---	51.2	16.6	0.08	B	27.1	14.7	0.05	B				
	NBL	200	6.4	27.4	0.02	C	12.4	24.9	0.07	C				
	NBT	---	295.5	33.8	0.46	C	219.3	29.2	0.41	C				
	NBR	110	47.5	28.4	0.09	C	31.8	25.2	0.07	C				
	SBL	120	33.4	27.0	0.13	C	32.7	22.6	0.13	C				
	SBT	---	204.4	29.9	0.31	C	276.4	29.1	0.50	C				
	SBR	110	78.4	27.8	0.14	C	238.7	29.8	0.46	C				
98th Street & Site Driveway A / Walgreens' Driveway	EBT/L	---	0.0	18.8	0.01	C	15.0	25.2	0.16	D	18.0	C	19.5	C
	EBR	---	0.0	9.0	0.00	A	2.5	10.2	0.03	B				
	WBT/L	---	52.5	25.9	0.42	D	45.0	26.4	0.38	D				
	WBR	---	20.0	11.6	0.22	B	17.5	11.1	0.18	B				
	NBL	150	0.0	8.6	0.00	A	0.0	8.8	0.01	A				
	NBT/R	---	---	---	---	---	---	---	---	---				
	SBL	150	17.5	9.5	0.19	A	12.5	9.1	0.15	A				
	SBT/R	---	---	---	---	---	---	---	---	---				
98th Street & Gibson Blvd	EBL	400	144.7	21.3	0.26	C	128.2	54.6	0.79	D	27.2	C	40.2	D
	EBT	---	93.0	23.6	0.14	C	18.4	13.9	0.04	B				
	EBR	170	40.0	22.9	0.07	C	26.5	14.2	0.06	B				
	WBL	305	114.0	18.7	0.25	B	169.3	52.9	0.82	D				
	WBT	---	41.5	21.2	0.07	C	51.4	13.3	0.10	B				
	WBR	160	17.7	20.9	0.03	C	19.6	12.9	0.04	B				
	NBL	270	40.1	26.9	0.11	C	113.4	64.2	0.78	E				
	NBT	---	238.3	33.0	0.37	C	220.0	43.2	0.62	D				
	NBR	170	102.4	30.5	0.18	C	47.0	38.6	0.16	D				
	SBL	360	49.4	27.1	0.16	C	85.5	54.3	0.68	D				
	SBT	---	151.0	30.5	0.23	C	214.5	43.1	0.61	D				
	SBR	170	46.2	28.7	0.08	C	190.9	44.2	0.58	D				
98th Street & Blake Rd	EBL	220	10.1	19.8	0.02	B	9.6	19.3	0.03	B	29.8	C	25.2	C
	EBT/R	---	105.1	22.3	0.16	C	67.7	21.2	0.13	C				
	WBL	180	62.9	17.6	0.14	B	82.0	16.4	0.20	B				
	WBT/R	---	67.0	19.4	0.11	B	137.9	19.5	0.24	B				
	NBL	90	21.7	28.8	0.07	C	39.5	24.1	0.14	C				
	NBT	---	250.2	34.7	0.40	C	189.4	29.2	0.35	C				
	NBR	120	126.0	32.5	0.22	C	71.4	27.1	0.16	C				
	SBL	400	76.7	26.6	0.24	C	70.7	22.8	0.24	C				
	SBT	---	224.7	31.4	0.32	C	191.4	28.0	0.32	C				
	SBT/R	---	223.6	31.4	0.32	C	189.3	28.0	0.33	C				
Gibson Blvd & Site Driveway B	EBT	---	---	---	---	---	---	---	---	---	9.5	A	9.8	A
	WBT	---	---	---	---	---	---	---	---	---				
	WBR	---	---	---	---	---	---	---	---	---				
	SBR	---	12.5	9.5	0.15	A	12.5	9.8	0.14	A				
Gibson Blvd & Unser Blvd	EBL	320	292.8	58.5	0.87	E	165.0	67.0	0.80	E	23.3	C	15.0	B
	EBT	---	23.2	37.4	0.05	D	30.9	49.4	0.09	D				
	EBR	---	---	0.0	---	A	---	0.0	---	A				
	WBL	70	70.1	45.7	0.21	D	72.3	50.5	0.21	D				
	WBT	---	54.7	49.5	0.22	D	25.5	53.7	0.10	D				
	WBR	---	---	0.0	---	A	---	0.0	---	A				
	NBL	450	54.5	12.4	0.22	B	57.5	8.6	0.25	A				
	NBT	---	250.1	15.6	0.39	B	140.2	10.2	0.23	B				
	NBR	---	---	0.0	---	A	---	0.0	---	A				
	SBL	300	15.4	13.5	0.07	B	35.4	8.4	0.13	A				
	SBT	---	229.8	16.9	0.35	B	210.7	11.8	0.32	B				
	SBR	---	---	0.0	---	A	---	0.0	---	A				

**Intersection LOS and delay for stop-controlled intersection, results are reported as the worst case movement*

[1]Double auxiliary lanes of the listed length

[2] For Stop Controlled intersections, 95% Queue Lengths have been converted from units of vehicles to units of feet using 25ft/Veh

From the above table, the following conclusions are made for the Horizon Year Total conditions analysis:

- For the intersection of 98th St and 86th St / De Anza
  - Capacity Analysis
    - Overall, the intersection operates at LOS F during the AM and PM peak hours.
      - During the AM and PM peak hours, the eastbound combined right/left/through movement operates at LOS F.
  - Queueing Analysis
    - Existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths except in the following cases:
      - Southbound right-turn lane during the PM peak hour
- For the intersection of 98th St and Walgreens' Driveway / Site Driveway A
  - Capacity Analysis
    - Overall, the intersection operates at a LOS of C during both the AM and PM peak. Individual approach movements LOS ranges from A to D.
  - Queueing Analysis
    - Where HCS results for queue lengths are present, existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths.
- For the intersection of 98th St and Gibson Blvd
  - Capacity Analysis
    - Overall, the intersection operates at a LOS of C during the AM peak hour and a LOS D during the PM peak hour . Individual approach movements LOS ranges from B to E.
      - From the Build-Out Year to the Horizon Year Total scenarios, the northbound left movement changed from LOS D to E
  - Queueing Analysis
    - Existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths in all cases except:
      - The PM peak hour southbound right-turn movement's 95th percentile queue exceeds the available auxiliary lane length.
- For the intersection of 98th St and Blake Rd
  - Capacity Analysis
    - Overall, the intersection operates at a LOS of C during both the AM and PM peak. Individual approach movements LOS ranges from B to C.
  - Queueing Analysis
    - Existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths in all cases except:
      - The AM peak hour northbound right-turn movement's 95th percentile queue exceeds the available auxiliary lane length.
- For the intersection of Gibson Blvd and Site Driveway B
  - Capacity Analysis
    - Overall, the intersection operates at a LOS of A during both the AM and PM peak for the single movement which experiences delay based on HCM methodology.
  - Queueing Analysis
    - Existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths in all cases.

For the intersection of Gibson Blvd and Unser Blvd

- Capacity Analysis
  - Overall, the intersection operates at LOS C during the AM peak hour and at LOS B during the PM peak hour.
    - During the AM and PM peak hours, the eastbound left-turn movement operates at LOS E.
- Queueing Analysis
  - Existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths in all cases except:
    - The AM and PM peak hours the westbound left-turn movement's 95th percentile queue exceeds the available auxiliary lane length.

Build-Out Year (2023) Mitigated/Optimized Conditions

Under Existing and Build-Out Background conditions the intersections of 98th St and 86th St / De Anza and Gibson Blvd and Unser Blvd display movements with an unacceptable LOS. To mitigate the poor LOS and excessive 95th percentile queues the following mitigation measures were implemented within the HCS analysis.

- At the intersection of 98th St and 86th St / De Anza Rd
  - A 200-foot dedicated left-turn auxiliary lane was added to eastbound De Anza Rd. The remaining (existing) lane was treated as a shared through/right lane.
  - The southbound right-turn movement was overlapped with the eastbound left-turn movement.
- At the intersection of Gibson Blvd and Unser Blvd
  - Existing signal timings as provided by the City of Albuquerque were adjusted to provide additional split time for the eastbound left-turn movement.
    - The additional split time for the eastbound left-turn was successful at mitigating the LOS E to D for the AM peak hour. However, due to total cycle length associated wait times rather than control delay issues there was no additional split time capable of mitigating the PM LOS for this movement.

The HCS results of this Optimized Build-Out scenario are presented in Table 13.

Table 13: HCS Result Summary for Build-Out Year (2023) Optimized Conditions

Build-Out Year - Optimized (2023)														
Study Intersection	Queue, Delay, V/C, and LOS										Intersection LOS			
			AM				PM				AM		PM	
	Movement	Auxiliary Lane Length (ft)	95th Percentile Queue (ft)[2]	Delay (sec)	V/C	LOS	95th Percentile Queue (ft)	Delay (sec)	V/C	LOS	Delay (sec)	LOS	Delay (sec)	LOS
98th Street & 86th Street / De Anza Dr	EBT/R	---	158.5	19.1	0.29	B	88.1	17.1	0.20	B	28.2	C	25.9	C
	EBL	200	52.1	19.9	0.08	B	22.6	17.7	0.04	B				
	WBL	235	31.5	21.7	0.06	C	23.3	17.8	0.05	B				
	WBT/R	---	58.1	24.0	0.09	C	29.1	19.2	0.06	B				
	NBL	200	6.4	27.2	0.02	C	11.6	24.6	0.06	C				
	NBT	---	272.5	32.9	0.42	C	203.1	28.6	0.37	C				
	NBR	110	43.3	28.1	0.08	C	29.2	25.0	0.07	C				
	SBL	120	30.5	26.8	0.11	C	29.6	22.5	0.11	C				
	SBT	---	190.1	29.5	0.28	C	255.1	28.3	0.46	C				
	SBR	110	72.2	27.7	0.13	C	94.8	22.1	0.19	C				
Gibson Blvd & Unser Blvd	EBL	320	257.9	51.8	0.85	D	142.0	60.9	0.76	E	21.4	C	12.7	B
	EBT	---	21.2	37.9	0.05	D	28.4	49.3	0.09	D				
	EBR	---	---	0.0	---	A	---	0.0	---	A				
	WBL	70	65.3	45.8	0.20	D	67.1	50.7	0.20	D				
	WBT	---	49.5	49.4	0.20	D	22.7	53.6	0.09	D				
	WBR	---	---	0.0	---	A	---	0.0	---	A				
	NBL	450	49.1	11.7	0.19	B	51.8	8.2	0.22	A				
	NBT	---	224.6	14.6	0.35	B	125.1	9.8	0.21	A				
	NBR	---	---	0.0	---	A	---	0.0	---	A				
	SBL	300	13.8	12.8	0.06	B	32.1	8.2	0.12	A				
	SBT	---	206.8	15.8	0.32	B	191.0	11.2	0.29	B				
	SBR	---	---	0.0	---	A	---	0.0	---	A				

**Intersection LOS and delay for stop-controlled intersection, results are reported as the worst case movement*

[1]Double auxiliary lanes of the listed length

[2] For Stop Controlled intersections, 95% Queue Lengths have been converted from units of vehicles to units of feet using 25ft/Veh

From the above table, the following conclusions are made for the Optimized/Mitigated conditions analysis:

- For the intersection of 98th St and 86th St / De Anza
  - Capacity Analysis
    - Overall, the intersection operates at LOS C during the AM and PM peak hours.
      - The implementation of the mitigation measures improved all failing movements to within acceptable limits
  - Queueing Analysis
    - Existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths except in all cases
- For the intersection of Gibson Blvd and Unser Blvd
  - Capacity Analysis
    - Overall, the intersection operates at LOS C during the AM peak hour and at LOS B during the PM peak hour. These LOS results are unchanged from the Build-Out Year Total scenario.
      - During the AM peak hour, the eastbound left-turn movement operates at LOS D an improvement from the LOS E displayed under the Build-Out Year Total scenario.
        - The PM LOS remained E due to cycle length wait time.

- Queueing Analysis
  - Where HCS results for queue lengths are present, existing auxiliary lane lengths are sufficient to accommodate 95th percentile queue lengths.

DEVELOPMENT SITE-SPECIFIC OBSERVATIONS AND RECOMMENDATIONS

SITE ACCESS SIGHT DISTANCE

The following presents recommended intersection sight distance requirements for the access driveways serving the Development. Intersection sight distance requirements were calculated based on the City of Albuquerque's Development Process Manual (CABQ DPM Section 7-4(I)(5)) and the 2018 AASHTO "Green Book" chapter 9.5. Passenger cars were used as the design vehicle.

- Turning Left – A stopped vehicle turning left from a minor street approach onto a major road.
- Case B2 – A stopped vehicle turning right from a minor street approach onto a major road.

Intersection sight distances were calculated based on the following assumptions:

- Required intersection sight distance for turning left was selected from Table 7.4.65 from the CABQ DPM based on the speed limit of 35 MPH. The CABQ DPM states that if a roadway is divided with a median width of 20 feet or more for passenger vehicle crossings, required sight distance may be based on a two-stop crossing and consideration given to the width of each one-way section at a time. In this case, the two selections were based on a two-lane undivided roadway traveling from the access point to the median and the median to the other lane.
- Required intersection sight distance for Case B2 was calculated based on the design vehicle crossing into the first lane of the roadway.

Values shown below in Table 14 were rounded up to the nearest 5-foot increment.

Table 14: Site Distance Requirements

Case	Roadway	Speed	Minimum Sight Distance	Approximate Available Sight Distance
Turning Left to Median	Site Driveway A	35 MPH	390 FT	600 FT
Turning Left from Median	Site Driveway A	35 MPH	390 FT	600 FT
Case B2 - Turning Right	Site Driveway A	35 MPH	335 FT	530 FT
Case B2 - Turning Right	Site Driveway B	40 MPH	385 FT	700 FT

It is recommended that all development driveways adhere to the sight distance provisions detailed in the CABQ DPM and the AASHTO "Green Book". An area bounded by the above sight distances with the decision point placed 14.5 feet back from the edge of the shoulder midway between the outbound driving lane should be maintained clear of any obstructions.

TURN LANE WARRANT ANALYSIS

The following presents a review of CABQ turn lane warrant criteria performed for the proposed Site Access Driveways A and B. Table 15 below shows the guidelines in the CABQ DMP from Table 7.4.67 to Table 7.4.70 criteria that were used to determine the need for turn lanes. The results of this analysis are shown in the

Table 16 below. Build-Out turning movement and adjacent lane volumes for the PM peak hour were used in the analysis.

Table 15: CABQ DPM Table 7.4.67 – Turn Lane Warrants

TABLE 7.4.67 **Turn Lane Warrants**			
Left Turn		**Right Turn**	
Design Speed (MPH)	**Turning Volume per Hour**	**Design Speed (MPH)**	**Turning Volume per Hour**
25	50	25	60
30-40	40	30-40	50
45	30	45	45

Table 16: Right Turn Lane Warrant

Location	Posted Speed Limit	Turning Volume (vph)	Turning Volume Threshold (vph)	Right Turn Warrant Result
Site Driveway A	35 MPH	172	50	Required
Site Driveway B	40 MPH	38	50	Not Required

Table 17: Left Turn Lane Warrant

Location	Posted Speed Limit	Turning Volume (vph)	Turning Volume Threshold (vph)	Left Turn Warrant Result
Site Driveway A	35 MPH	170	40	Required (Existing)

Based on the above criteria, a right turn and left turn deceleration lane is warranted for Site Driveway A. Presently a left-turn auxiliary lane exists. The warranted right-turn auxiliary would need to be constructed as one does not currently exist. A right turn lane is not warranted for Site Driveway B.

Deceleration Lane Lengths

Guidelines in the CABQ DPM Table 7.4.68 and Table 7.4.70 can be found below.

Table 18: CABQ DMP Table 7.4.68 – Right-Turn Lane Design Criteria

TABLE 7.4.68 **Right-turn Lane Design Criteria**		
Design Speed of Roadway (MPH)	**Minimum Storage Length (ft.)**	**Lane Transition Length (ft.)**
<35	240	150-150 Reverse Curve
35 – 40	240 – 350	300-150 Reverse Curve
45 – 50	350 – 405	600-300 Reverse Curve

Table 19: CABQ DPM Table 7.4.70 - Minimum Left-Turn Lane Transition Length

TABLE 7.4.70 **Minimum Left-turn Lane Transition Length**	
Design Speed of Roadway (MPH)	**Lane Transition (ft.)**
<35	150 - 150 Reverse Curve
35 – 40	300 - 150 Reverse Curve
45 – 50	600 - 300 Reverse Curve

Using the information in Table 18 and Table 19, the following is assessed:

Table 20: Deceleration Lengths

Location	Lane Type	Posted Speed Limit	Existing Deceleration Lane Length	CABQ DPM Recommended Deceleration Length
Site Driveway A	Right Turn	35 MPH	0 FT	(240 - 350) FT Storage + (300 - 150 RC) FT Transition
Site Driveway A	Left Turn	35 MPH	150 FT	(300 - 150 RC) FT Transition

The construction of a turn lane, which meets CABQ DPM recommendations in the absence of constraints with strict adherence to the CABQ DPM and no limiting physical or legal constraints present, would require the right turn lane to provide a minimum storage length of 240 feet plus 150 to 300 Feet transition taper.

Currently, the existing shared access easement roadway extending south from Driveway A is positioned against a PNM-owned power facility on the east side of the roadway. As moving the access roadway closer

to the PNM facility would not be feasible, the construction of a northbound right turn auxiliary lane at this driveway would require a reduction in paved width or a reduction in setback from 98th St. Additionally, any modifications would likely result in a decrease of curb radii placing turn paths of entering vehicles into the exiting lane. Therefore, if a northbound right turn deceleration lane is desired for vehicles entering the site from 98th St, it is recommended that a northbound entrance-only driveway be constructed at the north boundary of the site (south of the full access Driveway A) with a deceleration lane.

The deceleration should be constructed to meet CABQ DPM requirements or as close as possible to those requirements. Given the physical constraints present it does not appear to be possible to meet the DPM minimum storage length. Per discussions with the city of Albuquerque a reduced length turn lane may be acceptable. The proposed right turn lane would contain 150 feet of queue storage length with a 47.5-foot-long taper. The worst-case Horizon Year (2033) Total HCS analysis did not forecast a queue as the movement would not be stop controlled. Given this slow to 15 mph rather than stop condition present for the movement a 150-foot axillary lane will likely be sufficient to accommodate the deceleration needs of projected site traffic.

Non development related turning lane recommendations include the following.

- 98th St and Gibson Blvd: lengthen the southbound right turn lane to 240 feet plus 150 to 300 Feet transition taper at to meet the guidelines provided by the DPM.
- 98th St and De Anza Dr/86th St: lengthen the northbound right turn lane to 240 feet plus 150 to 300 Feet transition taper at to meet the guidelines provided by the DPM.
- 98th St and De Anza Dr/86th St: lengthening the southbound right turn lane as much as possible recognizing the constraint imposed by the Amole Arroyo and Trail. Lengthening should attempt to be as close to 240 feet plus 150 to 300 Feet transition taper as possible.

`

SPECIFIC SITE ACCESS ANALYSIS

SITE ACCESS ANALYSIS

ACCESS SPACING

Required minimum distances between commercial site access and intersections were analyzed using criteria defined in the CABQ DPM. Criteria was applied to the proposed Site Access Driveway (A). Arrival and departure distances are used to analyze spacing requirements. Access spacing standards from the CABQ DPM Table 7.4.45 are found in Table 21 and Table 22.

Table 21: Table 7.4.45 – Minimum Distance Between Commercial Site Access and Intersection

TABLE 7.4.45 **Minimum Distance Between Commercial Site Access and Intersection**						
Type of Street	**Cross Street Classes**					
	Arterial		**Collector**		**Local**	
	A	**D**	**A**	**D**	**A**	**D**
Principal Arterial	300 ft.	200 ft.	200 ft.	150 ft.	150 ft.	100 ft.
Minor Arterial	200 ft.	150 ft.	150 ft.	100 ft.	100 ft.	100 ft.
Major Collector	150 ft.	150 ft.	100 ft.	100 ft.	75 ft.	75 ft.
Minor Collector	150 ft.	150 ft.	100 ft.	100 ft.	75 ft.	75 ft.
Local (additional distance may be required for queuing)	75 ft.	75 ft.	50 ft.	50 ft.	25 ft.	25 ft.

Table 22: Table 7.4.46 - Maximum Number of Commercial Site Access Points per Site

TABLE 7.4.46 **Maximum Number of Commercial Site Access Points per Site**	
Type of Street	
Principal Arterials	1-2 access points per 300 ft. frontage
Minor Arterials	1-2 access points per 200 ft. frontage
Collectors	1 access point per 100 ft. frontage

The proposed Site Access Driveway (A) would be located on 98th St, approximately 590 feet north the intersection of Gibson Blvd and 98th St. Currently, no other driveways are located on northbound 98th St near the development site. For this driveway, arrival distance from the intersection is used as reference. The CABQ DPM required minimum arrival distance from the intersection of Gibson Blvd and 98th St is 150 feet.

The proposed Site Access Driveway (B) would be located on Gibson Blvd, approximately 230 feet east of the intersection of Gibson Blvd and 98th St. Currently, no other driveways are located on westbound Gibson Blvd near the development site. For this driveway, departure distance from the intersection is used as reference. The CABQ DPM required minimum departure distance to the intersection of Gibson Blvd and 98th St is 75 feet.

Based on Table 21 above, the proposed site access driveways meet the CABQ DPM minimum arrival and departure distance requirements for access spacing. Table 23 below summarizes the site access requirements.

Table 23: Site Access Requirements

Site Access	Major Street	Cross Street	Design Speed	Minimum Distance Between Commercial Site Access and		Maximum Number of Commercial Site Access Points per Site	Distance Between Site Access Point and Intersection		Number of DPM Recommended Site Access Points
				Approach Distance	Departure Distance		Approach Distance	Departure Distance	
Site Driveway A	Principal Arterial	Local	35 MPH	150 FT	100 FT	1-2 access points per 200 ft. frontage	590 FT	612 FT	**1-2**
Site Driveway B	Major Collector	Local	40 MPH	75 FT	75 FT	1 access points per 100 ft. frontage	1400 FT	230 FT	

As shown, the proposed site plan and access driveways meet CABQ DPM requirements for spacing.

CRASH DATA SUMMARY

At the request of the NMDOT, a crash summary for the intersections within the study area has been completed. The purpose of this analysis is to highlight trends and observations from summarized crash data. Crash data was provided by NMDOT for the years 2015 to 2019 in aggregate form and is summarized in the table below.

Table 24: Crash Summary

Crash Summary		98th St & 86th St	Gibson Blvd & 98th St	98th St & Blake Rd	Gibson Blvd & Unser Blvd
Total Crashes		39	49	69	38
By Year	2015	4	6	3	5
	2016	8	9	24	9
	2017	7	16	18	6
	2018	10	7	12	10
	2019	10	11	12	8
By Type	Fixed Object	2	4	1	6
	Unknown	0	1	0	1
	Unknown/Non-Collision	0	0	0	1
	Other Vehicle - All Others/Entering At Angle	0	3	1	0
	Other Vehicle - Both Going Straight/Entering At Angle	3	12	14	3
	Other Vehicle - Both Turn Right/Entering At Angle	0	0	1	0
	Other Vehicle - From Opposite Direction	4	5	6	4
	Other Vehicle - From Opposite Direction/All Others	1	0	2	0
	Other Vehicle - From Opposite Direction/Both Going	4	3	8	0
	Other Vehicle - From Opposite Direction/Head-On	0	1	0	0
	Other Vehicle - From Opposite Direction/One Left Turn	1	1	1	1
	Other Vehicle - From Opposite Direction/One Right Turn	0	0	1	0
	Other Vehicle - From Opposite Direction/Sideswipe	0	1	0	1
	Other Vehicle - From Same Direction/Both Going Straight	2	1	4	6
	Other Vehicle - From Same Direction/Both Turn Right	0	0	1	0
	Other Vehicle - From Same Direction/One Left Turn	0	1	0	0
	Other Vehicle - From Same Direction/One Stopped	0	0	2	1
	Other Vehicle - From Same Direction/Rear End Collision	3	2	5	4
	Other Vehicle - From Same Direction/Sideswipe Collision	0	0	1	0
	Other Vehicle - One Left Turn/Entering At Angle	6	1	10	3
	Other Vehicle - One Right Turn/Entering At Angle	0	1	1	1
	Invalid Code	1	1	3	0
	Overturn/Rollover	1	0	0	2
	Parked Vehicle	0	0	0	1
	Pedestrian	0	1	0	0
	Left Blank	10	9	6	4
	% Other Vehicle - Both Going Straight/Entering At Angle	8%	24%	20%	8%
	% Other Vehicle - One Left Turn/Entering At Angle	15%	2%	14%	8%
	% Other Vehicle - From Opposite Direction	10%	10%	9%	11%
By Lighting Conditions	Daylight	19	22	28	23
	Dawn/Dusk	0	0	3	0
	Dark	11	19	29	9
	Left Blank	9	8	9	6
	% Day	*49%*	*45%*	*41%*	*61%*
By Severity	Property Damage Only	31	29	42	22
	Injury	8	20	27	16
	Fatality	0	0	0	0
	% Property Damage Only	*79%*	*59%*	*61%*	*58%*
	% Injury	*21%*	*41%*	*39%*	*42%*
By Cause	Alcohol/Drug Involved	1	0	2	4
	Avoid No Contact - Other	0	0	3	0
	Avoid No Contact - Vehicle	0	0	1	0
	Disregarded Traffic Signal	5	4	11	2
	Driver Inattention	8	7	9	5
	Drove Left Of Center	0	1	0	0
	Excessive Speed	0	3	2	3
	Failed to Yield Right of Way	3	11	10	5
	Following Too Closely	1	1	0	4
	Improper Overtaking	0	0	1	1
	Inadequate Brakes	0	2	0	0
	Made Improper Turn	0	1	1	0
	Missing Data	11	8	10	7
	None	4	1	3	1
	Other - No Driver Error	0	0	0	3
	Other Improper Driving	0	1	2	2
	Passed Stop Sign	6	9	13	0
	Speed Too Fast for Conditions	0	0	1	1
	% Driver Inattention	*21%*	*14%*	*13%*	*13%*
	% Failed to Yield Right of Way	*8%*	*22%*	*14%*	*13%*
	% Passed Stop Sign	*15%*	*18%*	*19%*	*0%*

From the above table, the following observations are made:

- For the intersection of 98th St and 86th St:
  - Within the years 2015 to 2019, 39 crashes were reported.
  - The most common classification of crash was Other Vehicle – One Left Turn/Entering at Angle.
  - The majority of crashes where lighting conditions were reported occurred during daylight hours.
  - No fatal crashes were reported from 2015 to 2019. Injuries were reported in 21% of crashes.
  - The most common classification of crash was Driver Inattention.
- For the intersection of Gibson Blvd and 98th St:
  - Within the years of 2015 to 2019, 49 crashes were reported.
  - The most common classification of crash was Other Vehicle – Both Going Straight/Entering at Angle.
  - The majority of crashes where lighting conditions were reported occurred during daylight hours.
  - No fatal crashes were reported from 2015 to 2019. Injuries were reported in 41% of crashes.
  - The most common classification of crash was Failed to Yield Right of Way.
- For the intersection of 98th St and Blake Rd:
  - Within the years of 2015 to 2019, 69 crashes were reported.
  - The most common classification of crash was Other Vehicle – Both Going Straight/Entering at Angle.
  - The majority of crashes where lighting conditions were reported occurred under dark lighting conditions.
  - No fatal crashes were reported from 2015 to 2019. Injuries were reported in 39% of crashes.
  - The most common classification of crash was Passed Stop Sign.
- For the intersection of Gibson Blvd and Unser Blvd
  - Within the years of 2015 to 2019, 38 crashes were reported.
  - The two most common classifications of crash were Fixed Object and Other Vehicle – From Same Direction/Both Going Straight.
  - The majority of crashes where lighting conditions were reported occurred during daylight hours.
  - No fatal crashes were reported from 2015 to 2019. Injuries were reported in 42% of crashes.
  - The two most common classifications of crash were Driver Inattention and Failed to Yield Right of Way.

SUMMARY OF RECOMMENDATIONS

The following presents a summary of recommendations included in this report.

DEVELOPMENT SPECIFIC RECOMMENDATIONS

- Entering traffic volumes warrant a northbound right turn deceleration lane on 98th St.
  - Due to existing physical constraints (see auxiliary lane section for details), if a deceleration lane is desired for entering vehicles, it is recommended that a northbound Right-in-only driveway be constructed at the north boundary of the site (south of the full access Driveway A) with a deceleration lane. The deceleration should be constructed to meet CABQ DPM requirements or as close as possible to those requirements within the existing roadway geometry and available space.
- It is recommended that all development driveways adhere to the sight distance provisions detailed in the COA DPM or the AASHTO "Green Book" as applicable and outlined in this report.

ANCILLARY RECOMMENDATIONS

- At 98th St and Gibson Blvd, the southbound right turn lane does not meet the recommended storage length provided by the DPM and should be lengthened to 240 feet plus 150 to 300 Feet transition taper
- The conversion of the intersection of 98th St and 86th St / De Anza Rd from a stop-controlled into a signalized intersection should be considered based on the results of the Signal Warrant Analysis having been satisfied for warrants 1, 2, and 8.
  - As part of the signalization the addition of an eastbound auxiliary left-turn lane is recommended at the intersection of 98th St and 86th St / De Anza Rd.
  - Prior to signalization, the lengthening of the north and southbound right turn lanes to match as closely as possible the storage lengths presented by the DPM Table 7.4.68.
- HCS results suggest the need for future evaluation of capacity and queuing mitigation measures or street improvements unrelated to the proposed development at the intersection of Gibson Blvd and Unser Blvd.

Table of Contents

8220 SAN PEDRO DR NE
SUITE 150
ALBUQUERQUE, NM 87113
505/338-0988
www.lee-eng.com
LEE ENGINEERING

Agenda for Gibson 98th Gas Station Scoping Meeting
January 27, 2022
-Meeting Notes in Red-

Attendees:
Matt Grush – City of Albuquerque
~~**Jeanne Wolfenbarger – City of Albuquerque**~~
Jonathon Kruse – Lee Engineering
Richard Sims – Sims Architects

1. Introductions
2. Review of Site Plan
    a. Site Plan & land Uses
3. Discussion of Scope for TIS
    a. Study Intersections
        i. Site Driveways
        ii. Gibson Blvd & 98th St
        iii. 98th St & 86th St
        iv. 98th & Blake Rd
        v. Gibson Blvd & Unser Blvd
    b. Data Collection
        i. Gibson Blvd & 98th St
        ii. 98th St & 86th St (12-Hour for Signal Warrant)
        iii. 98th & Blake Rd
        iv. Gibson Blvd & Unser Blvd
    c. Trip Generation, Pass By, & Internal Capture
        i. Trip Generation Manual (10th Edition) Land Use – See attached spreadsheet
        ii. Pass-by trips - Yes
        iii. No Internal Capture
        iv. Trips distributed based on existing traffic patterns
    d. Known Developments or Pending Improvements in Area:
    e. Solari Charter School
    f. Sage Plaza (Devargas & Sage)
    g. Signal at Gibson & 98th
    h. Build-out Year and Growth Rate
        i. Build-Out Year (2023)
            1. Will look at MRCOG Model Projections and calculate growth rate (if any), otherwise will assume 1% growth per year.
    i. Analysis scenarios
        i. Existing Conditions
        ii. Opening Year Background (No Build)
        iii. Opening Year Buildout (Full Build)
        iv. Opening Year Buildout Optimized (if required)

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1. All scenarios with existing signal timings except opening year buildout optimized.
2. Horizon year +10 years

j. Required Analysis & Methodology
   i. LOS Capacity analysis based on HCM 6th Edition (HCS)
      1. Will use balanced volumes on Carlisle Blvd
   ii. 95th Percentile Queue demands (HCS)
      1. Capacity & Queueing for network peak rather than individual intersection peaks
   iii. Auxiliary Lane Analysis
   iv. Sight Distance Analysis at Proposed Driveways
   v. No Safety (Crash) Summary
      1. 5 Years Summary
      2. % per million per intersection

4. Agency Input (Comments & Issues)
5. Meeting Notes (distributed by Lee Engineering)

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 jpham@lee-eng.com

Count Name: NM303.03 98th St and Gibson Gas Station
Site Code:
Start Date: 03/01/2022

Turning Movement Data

Start Time	86th St Westbound						86th St Eastbound						98th St Southbound						98th St Northbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
6:00 AM	0	1	0	5	0	6	0	29	1	2	0	32	0	0	33	4	0	37	0	0	51	1	0	52	127
6:15 AM	0	1	1	7	0	9	0	30	2	1	0	33	0	2	40	9	0	51	0	1	74	0	0	75	168
6:30 AM	0	3	2	9	0	14	0	56	1	3	0	60	0	4	66	5	0	75	0	1	102	1	0	104	253
6:45 AM	0	1	4	3	0	8	0	41	6	5	0	52	0	5	83	13	0	101	0	1	109	5	0	115	276
Hourly Total	0	6	7	24	0	37	0	156	10	11	0	177	0	11	222	31	0	264	0	3	336	7	0	346	824
7:00 AM	0	14	5	9	1	28	0	55	11	3	0	69	1	7	106	11	0	125	0	0	117	4	0	121	343
7:15 AM	0	3	3	10	0	16	0	71	16	8	0	95	1	7	83	13	0	104	0	1	148	14	0	163	378
7:30 AM	0	6	6	16	0	28	0	42	8	2	0	52	0	15	72	19	0	106	0	1	122	11	0	134	320
7:45 AM	0	7	7	6	0	20	0	30	11	2	0	43	0	3	78	29	0	110	0	1	110	6	0	117	290
Hourly Total	0	30	21	41	1	92	0	198	46	15	0	259	2	32	339	72	0	445	0	3	497	35	0	535	1331
8:00 AM	0	12	4	2	0	18	0	43	3	3	0	49	0	5	80	34	0	119	0	1	109	6	0	116	302
8:15 AM	0	8	3	3	0	14	0	28	7	2	0	37	0	2	82	23	0	107	0	1	101	4	0	106	264
8:30 AM	0	5	0	4	0	9	0	28	4	1	0	33	0	3	59	13	0	75	0	0	105	3	0	108	225
8:45 AM	0	0	0	4	0	4	0	26	4	0	0	30	1	1	59	23	0	84	0	1	94	6	0	101	219
Hourly Total	0	25	7	13	0	45	0	125	18	6	0	149	1	11	280	93	0	385	0	3	409	19	0	431	1010
9:00 AM	0	1	1	3	0	5	0	25	0	0	0	25	0	2	55	9	0	66	0	2	69	1	1	72	168
9:15 AM	0	1	5	5	0	11	0	10	3	0	1	13	0	4	55	17	6	76	0	1	63	3	0	67	167
9:30 AM	0	1	2	6	2	9	0	23	3	0	0	26	0	1	41	14	0	56	0	0	68	1	0	69	160
9:45 AM	0	3	2	5	0	10	0	24	0	1	0	25	0	1	56	14	2	71	0	0	58	1	0	59	165
Hourly Total	0	6	10	19	2	35	0	82	6	1	1	89	0	8	207	54	8	269	0	3	258	6	1	267	660
10:00 AM	0	1	0	2	0	3	0	23	2	1	0	26	0	0	59	20	0	79	0	0	55	3	0	58	166
10:15 AM	0	2	0	3	0	5	0	17	0	3	0	20	0	4	58	23	0	85	0	0	72	1	0	73	183
10:30 AM	0	2	2	5	1	9	0	26	0	2	0	28	0	2	48	15	1	65	0	2	65	1	0	68	170
10:45 AM	0	1	1	0	0	2	0	23	1	2	1	26	0	1	51	12	0	64	0	0	49	2	1	51	143
Hourly Total	0	6	3	10	1	19	0	89	3	8	1	100	0	7	216	70	1	293	0	2	241	7	1	250	662
11:00 AM	0	1	1	6	0	8	0	13	0	0	0	13	0	4	52	19	0	75	0	0	59	2	2	61	157
11:15 AM	0	2	0	1	2	3	0	20	1	2	0	23	0	5	47	21	0	73	0	1	57	2	1	60	159
11:30 AM	0	2	2	2	0	6	0	22	4	4	0	30	0	3	67	12	2	82	0	1	71	3	0	75	193
11:45 AM	0	3	4	6	0	13	0	25	0	1	1	26	0	3	56	22	1	81	0	1	66	4	0	71	191
Hourly Total	0	8	7	15	2	30	0	80	5	7	1	92	0	15	222	74	3	311	0	3	253	11	3	267	700
12:00 PM	0	2	3	6	0	11	0	17	3	0	1	20	0	7	70	19	0	96	0	1	75	3	0	79	206
12:15 PM	0	1	2	3	0	6	0	23	4	0	0	27	0	1	71	29	0	101	0	1	86	4	0	91	225
12:30 PM	0	1	4	5	0	10	0	32	1	3	0	36	0	4	88	27	0	119	0	0	67	1	0	68	233
12:45 PM	0	2	1	4	0	7	0	26	0	2	0	28	0	3	65	24	0	92	0	0	65	5	0	70	197
Hourly Total	0	6	10	18	0	34	0	98	8	5	1	111	0	15	294	99	0	408	0	2	293	13	0	308	861

1:00 PM	0	4	3	7	0	14	0	28	0	0	0	28	1	2	78	25	0	106	0	1	75	3	0	79	227
1:15 PM	0	4	1	8	0	13	0	19	5	1	0	25	0	2	70	29	1	101	0	0	80	2	0	82	221
1:30 PM	0	4	2	5	0	11	0	24	1	2	0	27	0	3	80	31	0	114	0	1	72	4	0	77	229
1:45 PM	1	3	1	1	2	6	0	19	8	3	0	30	0	6	85	34	0	125	0	0	79	6	0	85	246
Hourly Total	1	15	7	21	2	44	0	90	14	6	0	110	1	13	313	119	1	446	0	2	306	15	0	323	923
2:00 PM	0	5	3	4	1	12	0	24	3	1	0	28	0	6	94	34	0	134	1	0	75	9	0	85	259
2:15 PM	0	8	0	3	4	11	0	29	1	0	0	30	0	7	107	45	0	159	0	1	92	4	0	97	297
2:30 PM	0	2	3	4	4	9	0	37	3	3	0	43	0	3	111	36	0	150	0	1	124	11	0	136	338
2:45 PM	0	5	7	7	2	19	0	37	3	0	0	40	0	1	98	37	0	136	0	0	140	18	1	158	353
Hourly Total	0	20	13	18	11	51	0	127	10	4	0	141	0	17	410	152	0	579	1	2	431	42	1	476	1247
3:00 PM	0	4	8	1	1	13	0	35	2	4	0	41	0	1	88	40	0	129	0	1	90	7	0	98	281
3:15 PM	0	4	0	4	0	8	0	27	1	2	3	30	1	5	122	45	6	173	0	0	82	1	1	83	294
3:30 PM	0	7	4	4	0	15	0	30	5	5	6	40	0	17	109	26	0	152	0	2	87	4	1	93	300
3:45 PM	0	13	16	20	1	49	0	28	4	2	4	34	0	13	134	57	1	204	0	1	104	8	0	113	400
Hourly Total	0	28	28	29	2	85	0	120	12	13	13	145	1	36	453	168	7	658	0	4	363	20	2	387	1275
4:00 PM	0	5	3	9	3	17	0	16	2	3	0	21	0	11	128	54	1	193	0	1	103	4	0	108	339
4:15 PM	0	8	2	3	0	13	0	21	3	2	0	26	0	11	123	60	0	194	0	2	115	5	0	122	355
4:30 PM	0	7	7	5	1	19	0	28	5	3	0	36	1	12	152	60	0	225	0	3	101	11	0	115	395
4:45 PM	0	3	7	2	4	12	0	28	8	3	0	39	0	4	118	57	0	179	1	2	97	7	0	107	337
Hourly Total	0	23	19	19	8	61	0	93	18	11	0	122	1	38	521	231	1	791	1	8	416	27	0	452	1426
5:00 PM	0	10	4	6	0	20	0	30	4	1	0	35	0	6	130	57	0	193	0	3	110	7	0	120	368
5:15 PM	0	2	4	4	0	10	0	34	3	1	0	38	1	12	163	58	0	234	0	4	95	7	0	106	388
5:30 PM	0	8	3	5	0	16	0	33	1	4	0	38	1	8	142	59	0	210	0	2	99	9	0	110	374
5:45 PM	0	8	10	4	0	22	0	37	10	5	0	52	0	12	128	64	0	204	0	2	117	4	0	123	401
Hourly Total	0	28	21	19	0	68	0	134	18	11	0	163	2	38	563	238	0	841	0	11	421	27	0	459	1531
6:00 PM	0	2	9	6	0	17	0	32	5	2	0	39	1	9	136	58	0	204	0	2	101	6	0	109	369
6:15 PM	0	2	7	4	0	13	0	31	0	1	1	32	0	12	126	61	0	199	0	1	104	9	0	114	358
6:30 PM	0	4	7	3	0	14	0	34	3	3	0	40	0	12	134	76	0	222	0	4	87	5	0	96	372
6:45 PM	0	7	3	6	0	16	0	19	4	1	0	24	1	11	94	39	0	145	0	3	86	8	0	97	282
Hourly Total	0	15	26	19	0	60	0	116	12	7	1	135	2	44	490	234	0	770	0	10	378	28	0	416	1381
Grand Total	1	216	179	265	29	661	0	1508	180	105	18	1793	10	285	4530	1635	21	6460	2	56	4602	257	8	4917	13831
Approach %	0.2	32.7	27.1	40.1	-	-	0.0	84.1	10.0	5.9	-	-	0.2	4.4	70.1	25.3	-	-	0.0	1.1	93.6	5.2	-	-	-
Total %	0.0	1.6	1.3	1.9	-	4.8	0.0	10.9	1.3	0.8	-	13.0	0.1	2.1	32.8	11.8	-	46.7	0.0	0.4	33.3	1.9	-	35.6	-
Lights	1	207	179	264	-	651	0	1495	177	103	-	1775	10	282	4411	1623	-	6326	2	56	4498	254	-	4810	13562
% Lights	100.0	95.8	100.0	99.6	-	98.5	-	99.1	98.3	98.1	-	99.0	100.0	98.9	97.4	99.3	-	97.9	100.0	100.0	97.7	98.8	-	97.8	98.1
Mediums	0	9	0	1	-	10	0	13	3	2	-	18	0	3	102	12	-	117	0	0	93	2	-	95	240
% Mediums	0.0	4.2	0.0	0.4	-	1.5	-	0.9	1.7	1.9	-	1.0	0.0	1.1	2.3	0.7	-	1.8	0.0	0.0	2.0	0.8	-	1.9	1.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	16	0	-	16	0	0	10	0	-	10	26
% Articulated Trucks	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.4	0.0	-	0.2	0.0	0.0	0.2	0.0	-	0.2	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	1	-	2	3
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.4	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	4.8	-	-	-	-	-	12.5	-	-
Pedestrians	-	-	-	-	29	-	-	-	-	-	18	-	-	-	-	-	20	-	-	-	-	-	7	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	95.2	-	-	-	-	-	87.5	-	-

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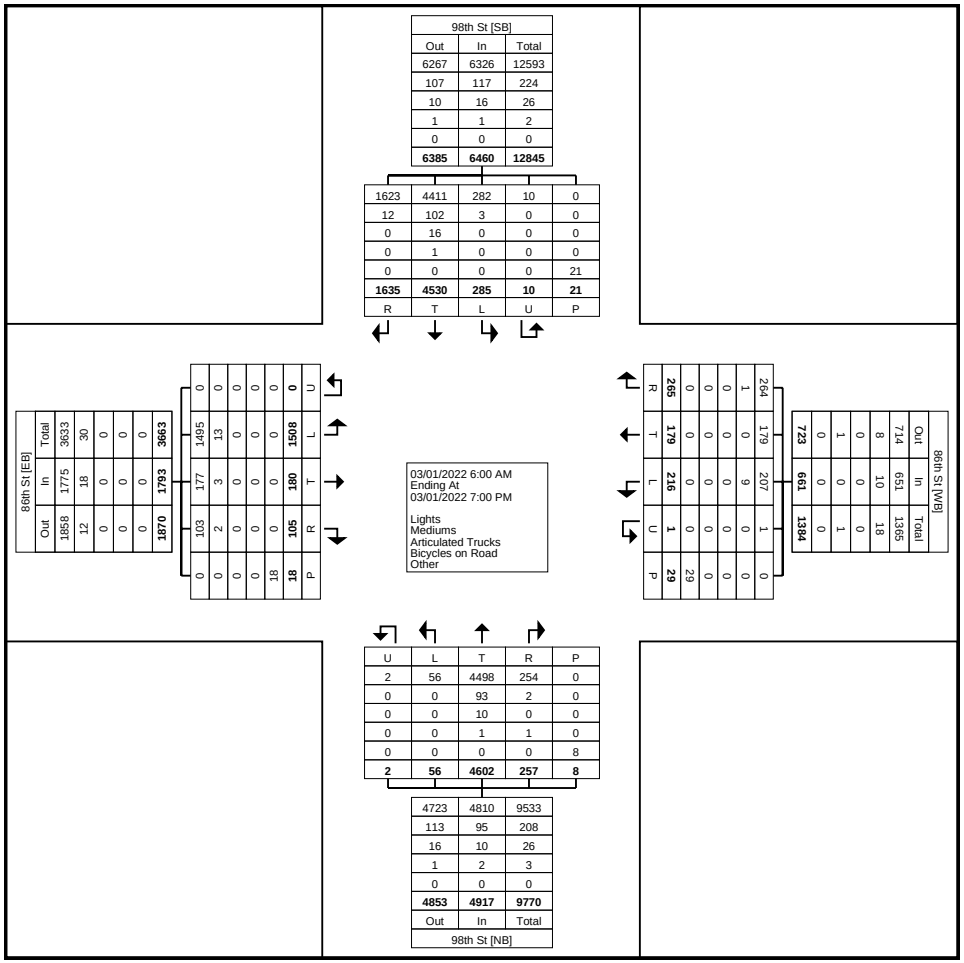
5053380988 jpham@lee-eng.com

Count Name: NM303.03 98th St and Gibson Gas Station
Site Code:
Start Date: 03/01/2022



Turning Movement Data Plot

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 jpham@lee-eng.com

Count Name: NM303.03 98th St and Gibson Gas Station
Site Code:
Start Date: 03/01/2022

Turning Movement Peak Hour Data (7:00 AM)

Start Time	86th St Westbound						86th St Eastbound						98th St Southbound						98th St Northbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	14	5	9	1	28	0	55	11	3	0	69	1	7	106	11	0	125	0	0	117	4	0	121	343
7:15 AM	0	3	3	10	0	16	0	71	16	8	0	95	1	7	83	13	0	104	0	1	148	14	0	163	378
7:30 AM	0	6	6	16	0	28	0	42	8	2	0	52	0	15	72	19	0	106	0	1	122	11	0	134	320
7:45 AM	0	7	7	6	0	20	0	30	11	2	0	43	0	3	78	29	0	110	0	1	110	6	0	117	290
Total	0	30	21	41	1	92	0	198	46	15	0	259	2	32	339	72	0	445	0	3	497	35	0	535	1331
Approach %	0.0	32.6	22.8	44.6	-	-	0.0	76.4	17.8	5.8	-	-	0.4	7.2	76.2	16.2	-	-	0.0	0.6	92.9	6.5	-	-	-
Total %	0.0	2.3	1.6	3.1	-	6.9	0.0	14.9	3.5	1.1	-	19.5	0.2	2.4	25.5	5.4	-	33.4	0.0	0.2	37.3	2.6	-	40.2	-
PHF	0.000	0.536	0.750	0.641	-	0.821	0.000	0.697	0.719	0.469	-	0.682	0.500	0.533	0.800	0.621	-	0.890	0.000	0.750	0.840	0.625	-	0.821	0.880
Lights	0	29	21	41	-	91	0	195	46	15	-	256	2	31	331	71	-	435	0	3	485	35	-	523	1305
% Lights	-	96.7	100.0	100.0	-	98.9	-	98.5	100.0	100.0	-	98.8	100.0	96.9	97.6	98.6	-	97.8	-	100.0	97.6	100.0	-	97.8	98.0
Mediums	0	1	0	0	-	1	0	3	0	0	-	3	0	1	6	1	-	8	0	0	12	0	-	12	24
% Mediums	-	3.3	0.0	0.0	-	1.1	-	1.5	0.0	0.0	-	1.2	0.0	3.1	1.8	1.4	-	1.8	-	0.0	2.4	0.0	-	2.2	1.8
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	2
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.6	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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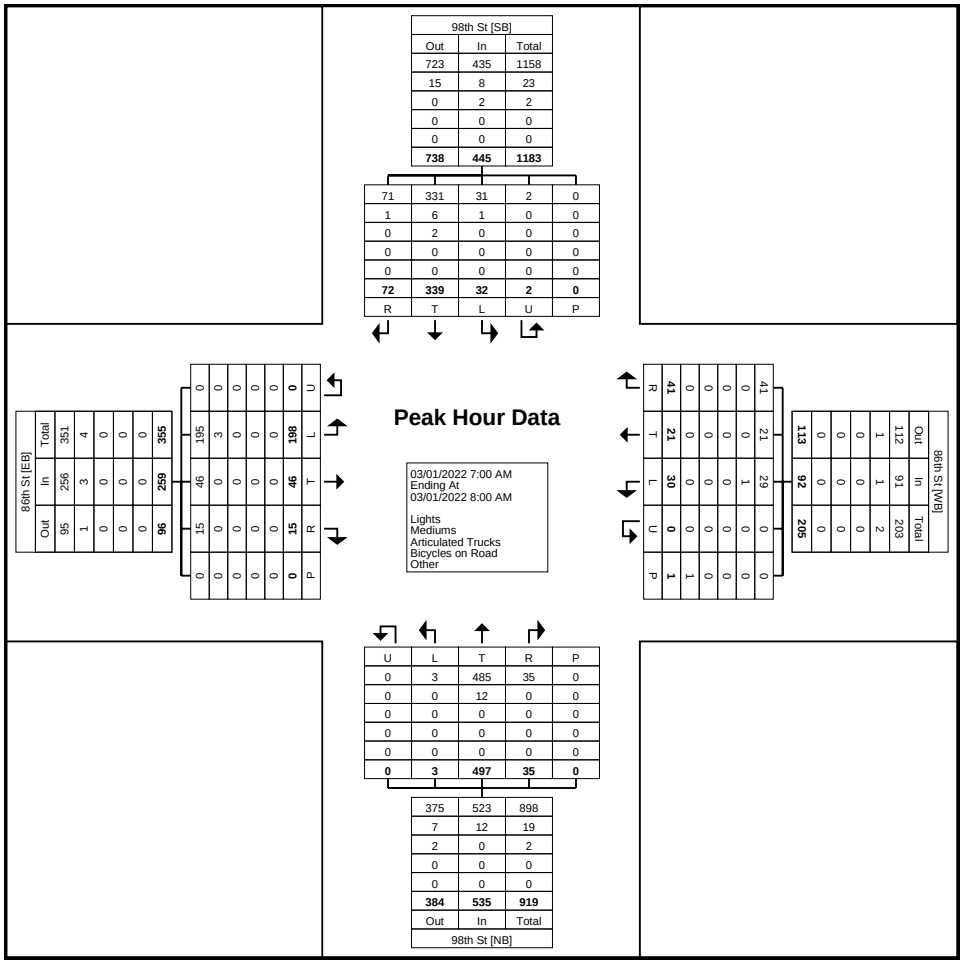
Count Name: NM303.03 98th St and Gibson Gas Station
Site Code:
Start Date: 03/01/2022



Turning Movement Peak Hour Data Plot (7:00 AM)

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 jpham@lee-eng.com

Count Name: NM303.03 98th St and Gibson Gas Station
Site Code:
Start Date: 03/01/2022

Turning Movement Peak Hour Data (5:15 PM)

Start Time	86th St Westbound						86th St Eastbound						98th St Southbound						98th St Northbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:15 PM	0	2	4	4	0	10	0	34	3	1	0	38	1	12	163	58	0	234	0	4	95	7	0	106	388
5:30 PM	0	8	3	5	0	16	0	33	1	4	0	38	1	8	142	59	0	210	0	2	99	9	0	110	374
5:45 PM	0	8	10	4	0	22	0	37	10	5	0	52	0	12	128	64	0	204	0	2	117	4	0	123	401
6:00 PM	0	2	9	6	0	17	0	32	5	2	0	39	1	9	136	58	0	204	0	2	101	6	0	109	369
Total	0	20	26	19	0	65	0	136	19	12	0	167	3	41	569	239	0	852	0	10	412	26	0	448	1532
Approach %	0.0	30.8	40.0	29.2	-	-	0.0	81.4	11.4	7.2	-	-	0.4	4.8	66.8	28.1	-	-	0.0	2.2	92.0	5.8	-	-	-
Total %	0.0	1.3	1.7	1.2	-	4.2	0.0	8.9	1.2	0.8	-	10.9	0.2	2.7	37.1	15.6	-	55.6	0.0	0.7	26.9	1.7	-	29.2	-
PHF	0.000	0.625	0.650	0.792	-	0.739	0.000	0.919	0.475	0.600	-	0.803	0.750	0.854	0.873	0.934	-	0.910	0.000	0.625	0.880	0.722	-	0.911	0.955
Lights	0	20	26	19	-	65	0	134	19	12	-	165	3	40	563	238	-	844	0	10	408	26	-	444	1518
% Lights	-	100.0	100.0	100.0	-	100.0	-	98.5	100.0	100.0	-	98.8	100.0	97.6	98.9	99.6	-	99.1	-	100.0	99.0	100.0	-	99.1	99.1
Mediums	0	0	0	0	-	0	0	2	0	0	-	2	0	1	4	1	-	6	0	0	4	0	-	4	12
% Mediums	-	0.0	0.0	0.0	-	0.0	-	1.5	0.0	0.0	-	1.2	0.0	2.4	0.7	0.4	-	0.7	-	0.0	1.0	0.0	-	0.9	0.8
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	2
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.4	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Lee Engineering, LLC
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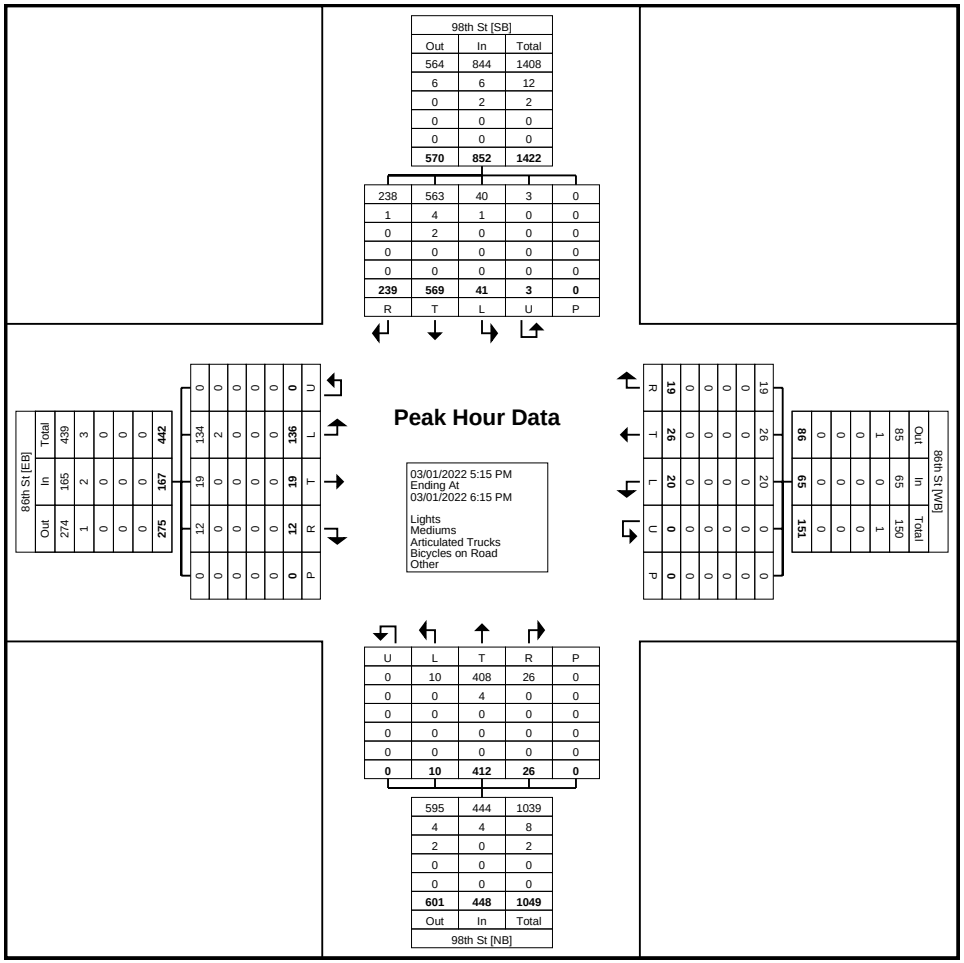
5053380988 jpham@lee-eng.com

Count Name: NM303.03 98th St and Gibson Gas Station
Site Code:
Start Date: 03/01/2022



Turning Movement Peak Hour Data Plot (5:15 PM)

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 jpham@lee-eng.com

Count Name: NM303.03 98th St and Gibson Walgreens
Site Code:
Start Date: 03/17/2022

Turning Movement Data

Start Time	Eastbound Approach Eastbound					98th St Southbound					98th St Northbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
6:00 AM	0	0	0	0	0	0	30	1	0	31	0	0	53	0	53	84
6:15 AM	0	0	0	0	0	0	49	0	0	49	0	0	67	0	67	116
6:30 AM	0	0	0	0	0	0	61	1	0	62	0	0	100	0	100	162
6:45 AM	0	4	2	0	6	0	79	2	0	81	0	0	102	0	102	189
Hourly Total	0	4	2	0	6	0	219	4	0	223	0	0	322	0	322	551
7:00 AM	0	0	0	0	0	0	89	0	0	89	1	0	106	0	107	196
7:15 AM	0	0	1	0	1	0	84	0	0	84	0	0	120	0	120	205
7:30 AM	0	1	0	0	1	0	68	1	0	69	0	0	127	0	127	197
7:45 AM	0	1	2	0	3	0	72	4	0	76	0	0	79	0	79	158
Hourly Total	0	2	3	0	5	0	313	5	0	318	1	0	432	0	433	756
8:00 AM	0	2	0	0	2	0	58	5	0	63	0	0	86	0	86	151
8:15 AM	0	0	3	0	3	0	53	1	0	54	0	0	73	0	73	130
8:30 AM	0	3	3	0	6	0	49	4	0	53	0	2	85	0	87	146
8:45 AM	0	2	3	0	5	0	47	4	0	51	0	0	62	0	62	118
Hourly Total	0	7	9	0	16	0	207	14	0	221	0	2	306	0	308	545
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	0	4	3	1	7	0	61	2	0	63	0	0	56	0	56	126
11:15 AM	0	1	1	0	2	1	52	2	0	55	0	2	51	0	53	110
11:30 AM	0	3	2	0	5	1	42	5	0	48	0	1	63	0	64	117
11:45 AM	0	5	2	0	7	0	52	4	0	56	0	1	64	0	65	128
Hourly Total	0	13	8	1	21	2	207	13	0	222	0	4	234	0	238	481
12:00 PM	0	6	0	0	6	0	72	5	0	77	0	0	55	0	55	138
12:15 PM	0	3	1	0	4	0	77	4	0	81	0	0	90	0	90	175
12:30 PM	0	6	1	0	7	0	67	7	0	74	0	0	62	0	62	143
12:45 PM	0	7	3	0	10	0	68	7	0	75	0	3	74	0	77	162
Hourly Total	0	22	5	0	27	0	284	23	0	307	0	3	281	0	284	618
1:00 PM	0	6	7	0	13	0	62	11	0	73	1	0	86	0	87	173
1:15 PM	0	6	4	0	10	0	60	6	0	66	0	1	60	0	61	137
1:30 PM	0	3	4	0	7	0	70	7	0	77	0	0	62	0	62	146
1:45 PM	0	4	3	0	7	0	72	4	0	76	0	0	65	0	65	148
Hourly Total	0	19	18	0	37	0	264	28	0	292	1	1	273	0	275	604
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:30 PM	0	4	3	0	7	0	106	8	0	114	0	0	106	0	106	227
3:45 PM	0	4	3	0	7	0	126	8	0	134	0	1	103	0	104	245
Hourly Total	0	8	6	0	14	0	232	16	0	248	0	1	209	0	210	472
4:00 PM	0	5	2	0	7	0	122	12	0	134	0	1	96	0	97	238

4:15 PM	0	6	3	0	9	0	117	10	0	127	0	3	93	0	96	232
4:30 PM	0	10	9	0	19	0	129	10	0	139	0	2	104	0	106	264
4:45 PM	0	8	4	0	12	0	134	12	0	146	0	0	103	0	103	261
Hourly Total	0	29	18	0	47	0	502	44	0	546	0	6	396	0	402	995
5:00 PM	0	9	2	0	11	1	118	18	0	137	1	4	92	1	97	245
5:15 PM	0	11	8	0	19	0	152	13	0	165	0	2	95	0	97	281
5:30 PM	0	5	4	0	9	0	134	9	0	143	0	2	122	0	124	276
5:45 PM	0	3	3	0	6	0	130	13	0	143	0	1	105	0	106	255
Hourly Total	0	28	17	0	45	1	534	53	0	588	1	9	414	1	424	1057
6:00 PM	0	6	7	0	13	0	112	10	0	122	0	3	101	0	104	239
6:15 PM	0	12	4	0	16	0	138	12	0	150	0	0	76	0	76	242
Grand Total	0	150	97	1	247	3	3012	222	0	3237	3	29	3044	1	3076	6560
Approach %	0.0	60.7	39.3	-	-	0.1	93.0	6.9	-	-	0.1	0.9	99.0	-	-	-
Total %	0.0	2.3	1.5	-	3.8	0.0	45.9	3.4	-	49.3	0.0	0.4	46.4	-	46.9	-
Lights	0	148	95	-	243	3	2937	220	-	3160	3	29	2980	-	3012	6415
% Lights	-	98.7	97.9	-	98.4	100.0	97.5	99.1	-	97.6	100.0	100.0	97.9	-	97.9	97.8
Buses	0	0	2	-	2	0	31	1	-	32	0	0	24	-	24	58
% Buses	-	0.0	2.1	-	0.8	0.0	1.0	0.5	-	1.0	0.0	0.0	0.8	-	0.8	0.9
Trucks	0	2	0	-	2	0	44	1	-	45	0	0	39	-	39	86
% Trucks	-	1.3	0.0	-	0.8	0.0	1.5	0.5	-	1.4	0.0	0.0	1.3	-	1.3	1.3
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	1	-	1	1
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-

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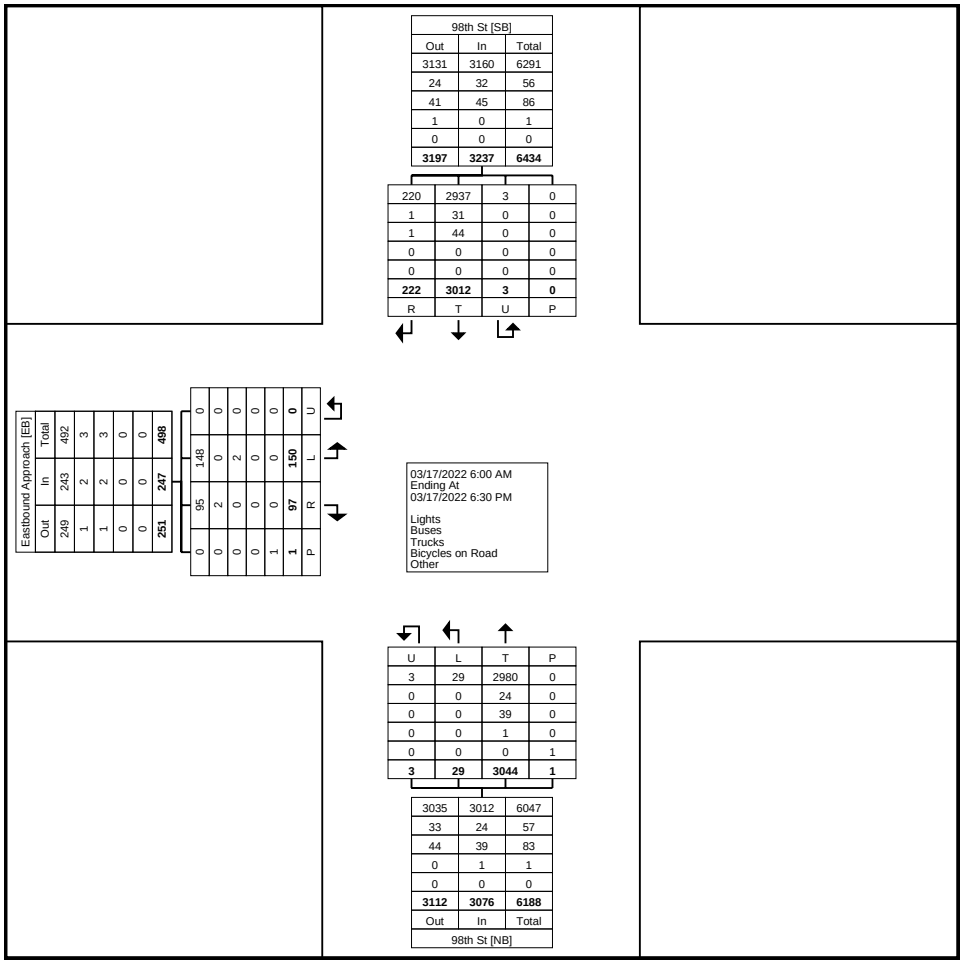
Start Date: 03/17/2022



Turning Movement Data Plot

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Albuquerque, New Mexico, United States 87113
5053380988 jpham@lee-eng.com

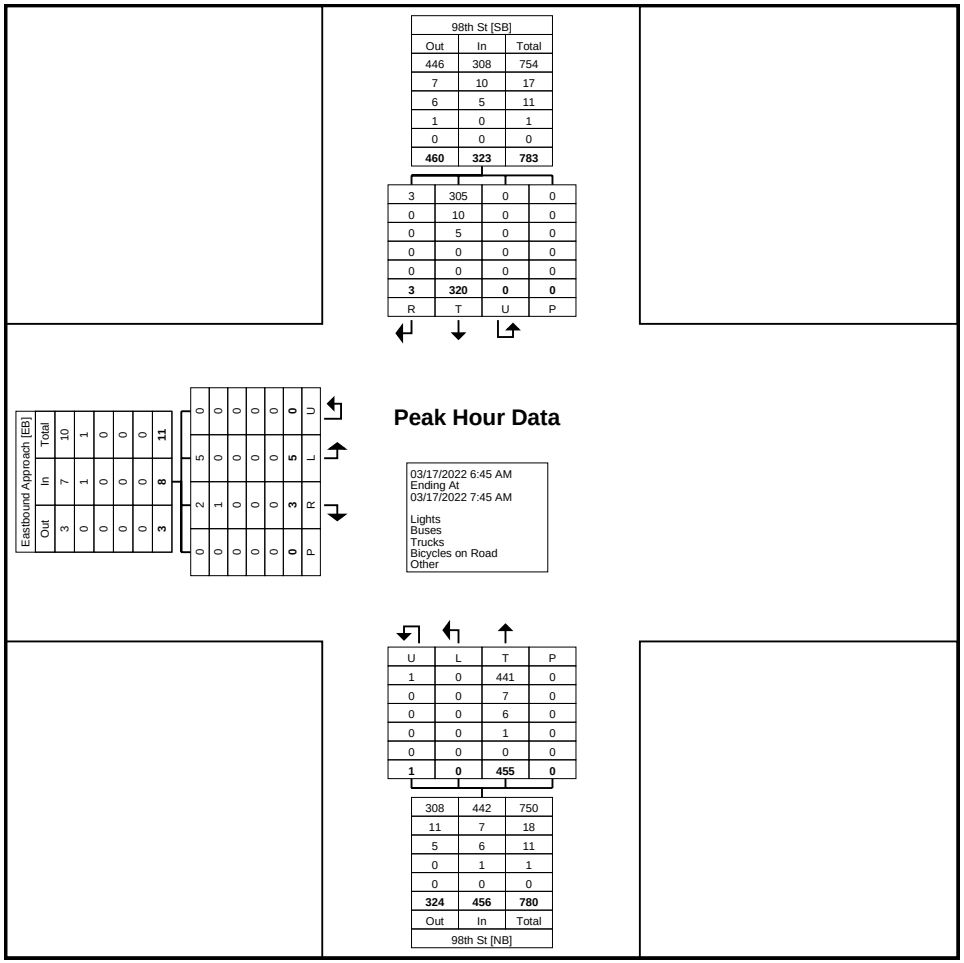
Count Name: NM303.03 98th St and Gibson Walgreens
Site Code:
Start Date: 03/17/2022

Turning Movement Peak Hour Data (6:45 AM)

Start Time	Eastbound Approach Eastbound					98th St Southbound					98th St Northbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
6:45 AM	0	4	2	0	6	0	79	2	0	81	0	0	102	0	102	189
7:00 AM	0	0	0	0	0	0	89	0	0	89	1	0	106	0	107	196
7:15 AM	0	0	1	0	1	0	84	0	0	84	0	0	120	0	120	205
7:30 AM	0	1	0	0	1	0	68	1	0	69	0	0	127	0	127	197
Total	0	5	3	0	8	0	320	3	0	323	1	0	455	0	456	787
Approach %	0.0	62.5	37.5	-	-	0.0	99.1	0.9	-	-	0.2	0.0	99.8	-	-	-
Total %	0.0	0.6	0.4	-	1.0	0.0	40.7	0.4	-	41.0	0.1	0.0	57.8	-	57.9	-
PHF	0.000	0.313	0.375	-	0.333	0.000	0.899	0.375	-	0.907	0.250	0.000	0.896	-	0.898	0.960
Lights	0	5	2	-	7	0	305	3	-	308	1	0	441	-	442	757
% Lights	-	100.0	66.7	-	87.5	-	95.3	100.0	-	95.4	100.0	-	96.9	-	96.9	96.2
Buses	0	0	1	-	1	0	10	0	-	10	0	0	7	-	7	18
% Buses	-	0.0	33.3	-	12.5	-	3.1	0.0	-	3.1	0.0	-	1.5	-	1.5	2.3
Trucks	0	0	0	-	0	0	5	0	-	5	0	0	6	-	6	11
% Trucks	-	0.0	0.0	-	0.0	-	1.6	0.0	-	1.5	0.0	-	1.3	-	1.3	1.4
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	1	-	1	1
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	-	0.2	-	0.2	0.1
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 jpham@lee-eng.com

Count Name: NM303.03 98th St and Gibson Walgreens
Site Code:
Start Date: 03/17/2022



Turning Movement Peak Hour Data Plot (6:45 AM)

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Count Name: NM303.03 98th St and Gibson Walgreens
Site Code:
Start Date: 03/17/2022

Turning Movement Peak Hour Data (11:00 AM)

Start Time	Eastbound Approach Eastbound					98th St Southbound					98th St Northbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
11:00 AM	0	4	3	1	7	0	61	2	0	63	0	0	56	0	56	126
11:15 AM	0	1	1	0	2	1	52	2	0	55	0	2	51	0	53	110
11:30 AM	0	3	2	0	5	1	42	5	0	48	0	1	63	0	64	117
11:45 AM	0	5	2	0	7	0	52	4	0	56	0	1	64	0	65	128
Total	0	13	8	1	21	2	207	13	0	222	0	4	234	0	238	481
Approach %	0.0	61.9	38.1	-	-	0.9	93.2	5.9	-	-	0.0	1.7	98.3	-	-	-
Total %	0.0	2.7	1.7	-	4.4	0.4	43.0	2.7	-	46.2	0.0	0.8	48.6	-	49.5	-
PHF	0.000	0.650	0.667	-	0.750	0.500	0.848	0.650	-	0.881	0.000	0.500	0.914	-	0.915	0.939
Lights	0	13	8	-	21	2	203	12	-	217	0	4	230	-	234	472
% Lights	-	100.0	100.0	-	100.0	100.0	98.1	92.3	-	97.7	-	100.0	98.3	-	98.3	98.1
Buses	0	0	0	-	0	0	2	0	-	2	0	0	2	-	2	4
% Buses	-	0.0	0.0	-	0.0	0.0	1.0	0.0	-	0.9	-	0.0	0.9	-	0.8	0.8
Trucks	0	0	0	-	0	0	2	1	-	3	0	0	2	-	2	5
% Trucks	-	0.0	0.0	-	0.0	0.0	1.0	7.7	-	1.4	-	0.0	0.9	-	0.8	1.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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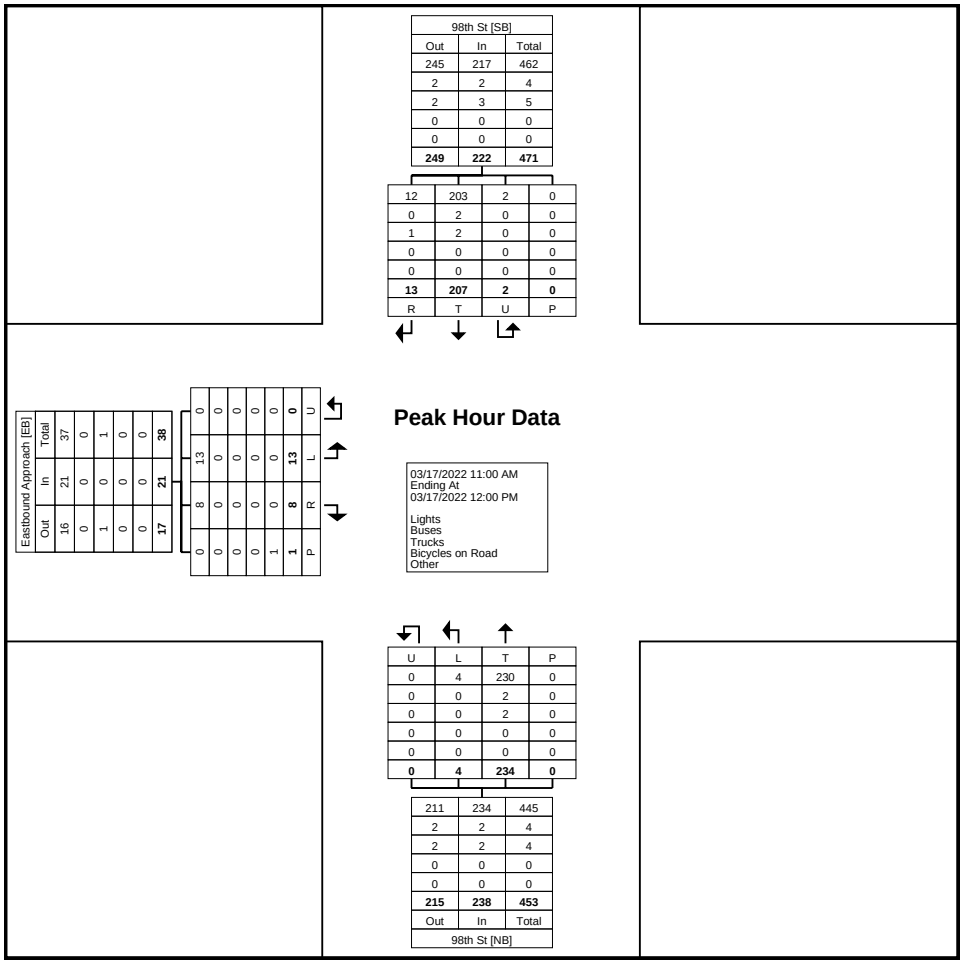

Turning Movement Peak Hour Data Plot (11:00 AM)

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Count Name: NM303.03 98th St and Gibson Walgreens
Site Code:
Start Date: 03/17/2022

Turning Movement Peak Hour Data (12:15 PM)

Start Time	Eastbound Approach Eastbound					98th St Southbound					98th St Northbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
12:15 PM	0	3	1	0	4	0	77	4	0	81	0	0	90	0	90	175
12:30 PM	0	6	1	0	7	0	67	7	0	74	0	0	62	0	62	143
12:45 PM	0	7	3	0	10	0	68	7	0	75	0	3	74	0	77	162
1:00 PM	0	6	7	0	13	0	62	11	0	73	1	0	86	0	87	173
Total	0	22	12	0	34	0	274	29	0	303	1	3	312	0	316	653
Approach %	0.0	64.7	35.3	-	-	0.0	90.4	9.6	-	-	0.3	0.9	98.7	-	-	-
Total %	0.0	3.4	1.8	-	5.2	0.0	42.0	4.4	-	46.4	0.2	0.5	47.8	-	48.4	-
PHF	0.000	0.786	0.429	-	0.654	0.000	0.890	0.659	-	0.935	0.250	0.250	0.867	-	0.878	0.933
Lights	0	22	12	-	34	0	263	29	-	292	1	3	306	-	310	636
% Lights	-	100.0	100.0	-	100.0	-	96.0	100.0	-	96.4	100.0	100.0	98.1	-	98.1	97.4
Buses	0	0	0	-	0	0	2	0	-	2	0	0	3	-	3	5
% Buses	-	0.0	0.0	-	0.0	-	0.7	0.0	-	0.7	0.0	0.0	1.0	-	0.9	0.8
Trucks	0	0	0	-	0	0	9	0	-	9	0	0	3	-	3	12
% Trucks	-	0.0	0.0	-	0.0	-	3.3	0.0	-	3.0	0.0	0.0	1.0	-	0.9	1.8
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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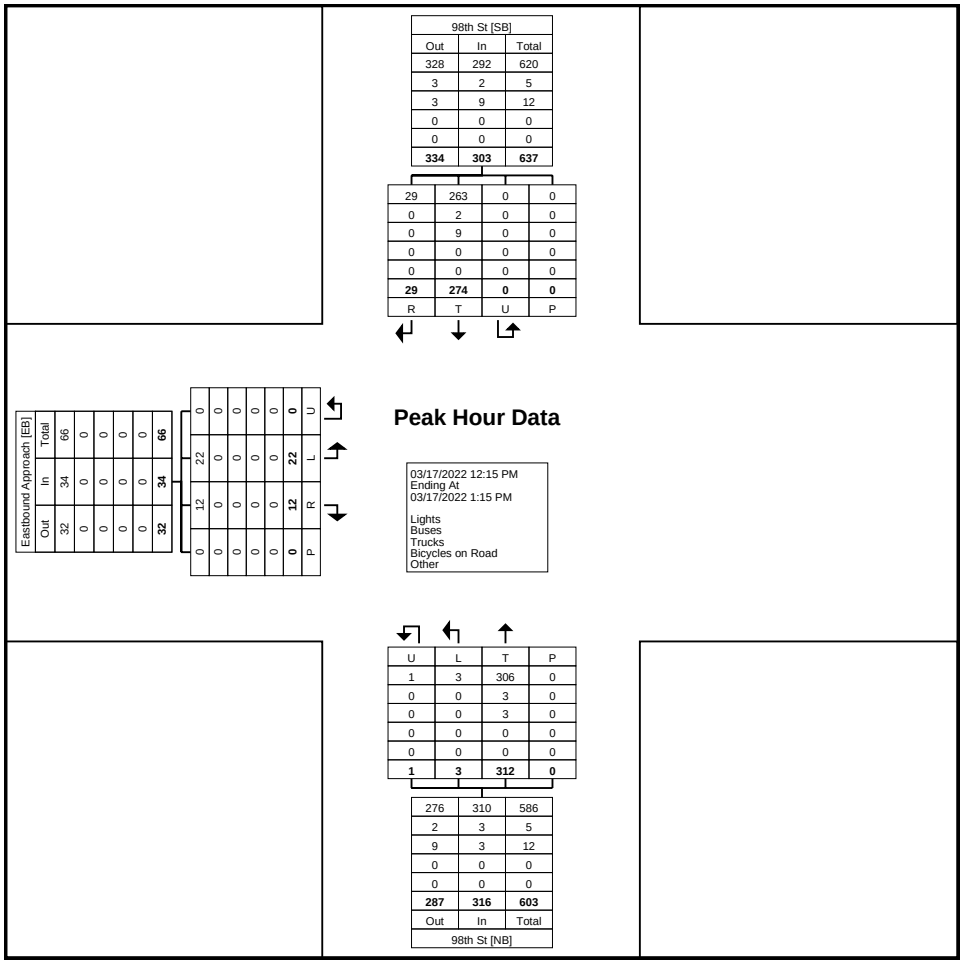
Count Name: NM303.03 98th St and Gibson Walgreens
Site Code:
Start Date: 03/17/2022



Turning Movement Peak Hour Data Plot (12:15 PM)

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Count Name: NM303.03 98th St and Gibson Walgreens
Site Code:
Start Date: 03/17/2022

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Eastbound Approach Eastbound					98th St Southbound					98th St Northbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
4:45 PM	0	8	4	0	12	0	134	12	0	146	0	0	103	0	103	261
5:00 PM	0	9	2	0	11	1	118	18	0	137	1	4	92	1	97	245
5:15 PM	0	11	8	0	19	0	152	13	0	165	0	2	95	0	97	281
5:30 PM	0	5	4	0	9	0	134	9	0	143	0	2	122	0	124	276
Total	0	33	18	0	51	1	538	52	0	591	1	8	412	1	421	1063
Approach %	0.0	64.7	35.3	-	-	0.2	91.0	8.8	-	-	0.2	1.9	97.9	-	-	-
Total %	0.0	3.1	1.7	-	4.8	0.1	50.6	4.9	-	55.6	0.1	0.8	38.8	-	39.6	-
PHF	0.000	0.750	0.563	-	0.671	0.250	0.885	0.722	-	0.895	0.250	0.500	0.844	-	0.849	0.946
Lights	0	33	17	-	50	1	535	52	-	588	1	8	408	-	417	1055
% Lights	-	100.0	94.4	-	98.0	100.0	99.4	100.0	-	99.5	100.0	100.0	99.0	-	99.0	99.2
Buses	0	0	1	-	1	0	2	0	-	2	0	0	2	-	2	5
% Buses	-	0.0	5.6	-	2.0	0.0	0.4	0.0	-	0.3	0.0	0.0	0.5	-	0.5	0.5
Trucks	0	0	0	-	0	0	1	0	-	1	0	0	2	-	2	3
% Trucks	-	0.0	0.0	-	0.0	0.0	0.2	0.0	-	0.2	0.0	0.0	0.5	-	0.5	0.3
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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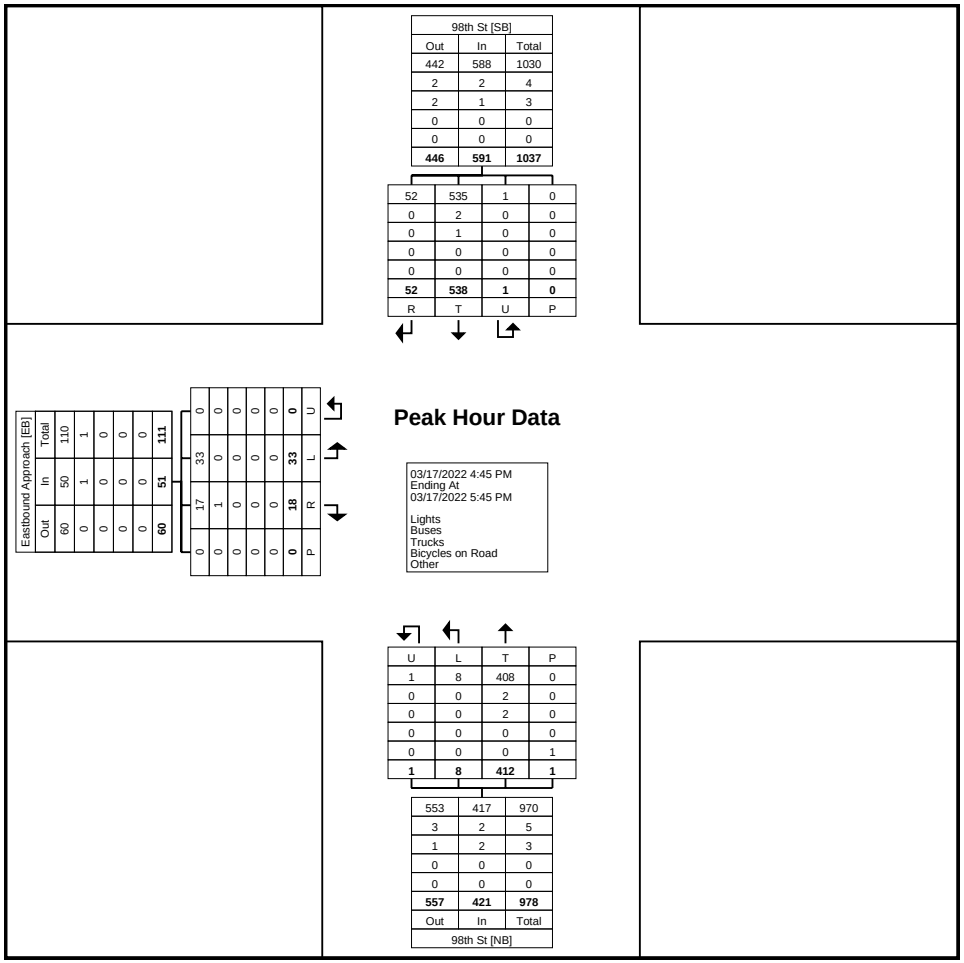
Count Name: NM303.03 98th St and Gibson Walgreens
Site Code:
Start Date: 03/17/2022



Turning Movement Peak Hour Data Plot (4:45 PM)

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Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
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Count Name: NM303.03 98th St and Gibson Gas Station
Site Code:
Start Date: 03/01/2022

Turning Movement Data

Start Time	Gibson Blvd Westbound						Gibson Blvd Eastbound						98th St Southbound						98th St Northbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
6:00 AM	0	0	3	2	0	5	0	16	15	6	0	37	0	0	28	2	0	30	0	0	34	7	0	41	113
6:15 AM	0	4	11	2	0	17	0	21	31	4	0	56	0	3	35	6	0	44	0	3	53	11	0	67	184
6:30 AM	0	4	14	3	0	21	0	42	26	7	0	75	0	4	49	5	0	58	0	3	57	16	0	76	230
6:45 AM	0	8	18	5	0	31	0	23	52	12	0	87	0	4	66	8	0	78	0	10	81	12	0	103	299
Hourly Total	0	16	46	12	0	74	0	102	124	29	0	255	0	11	178	21	0	210	0	16	225	46	0	287	826
7:00 AM	0	16	14	4	0	34	0	35	46	13	0	94	0	1	106	19	0	126	0	7	77	12	0	96	350
7:15 AM	0	13	23	1	0	37	0	40	62	6	0	108	0	5	84	5	0	94	0	17	114	25	0	156	395
7:30 AM	0	18	24	10	0	52	1	20	71	13	0	105	0	3	67	7	0	77	1	4	101	32	0	138	372
7:45 AM	0	6	21	5	0	32	0	25	42	10	0	77	0	3	56	11	0	70	0	12	88	20	0	120	299
Hourly Total	0	53	82	20	0	155	1	120	221	42	0	384	0	12	313	42	0	367	1	40	380	89	0	510	1416
8:00 AM	0	12	16	12	0	40	1	18	35	4	0	58	0	3	73	17	0	93	0	4	83	12	0	99	290
8:15 AM	0	6	11	2	0	19	0	27	32	6	0	65	0	3	75	9	0	87	0	7	78	9	1	94	265
8:30 AM	0	11	13	1	0	25	0	21	41	6	0	68	0	5	56	11	0	72	0	4	73	12	0	89	254
8:45 AM	0	7	9	1	0	17	0	18	17	4	0	39	0	4	44	5	0	53	0	1	88	6	0	95	204
Hourly Total	0	36	49	16	0	101	1	84	125	20	0	230	0	15	248	42	0	305	0	16	322	39	1	377	1013
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:30 PM	0	8	33	3	0	44	0	20	34	5	0	59	0	4	80	32	1	116	0	13	67	16	0	96	315
3:45 PM	0	27	45	14	0	86	0	22	22	9	0	53	0	5	106	34	0	145	0	12	75	13	0	100	384
Hourly Total	0	35	78	17	0	130	0	42	56	14	0	112	0	9	186	66	1	261	0	25	142	29	0	196	699
4:00 PM	0	10	45	8	5	63	0	17	20	4	0	41	0	5	85	27	0	117	0	15	70	13	0	98	319
4:15 PM	0	10	45	11	0	66	0	24	16	3	1	43	0	9	84	27	1	120	0	23	87	10	0	120	349
4:30 PM	0	7	36	10	2	53	0	27	16	0	0	43	0	12	108	31	0	151	0	12	84	10	2	106	353
4:45 PM	0	14	38	8	6	60	0	28	24	12	3	64	0	8	104	24	0	136	0	24	65	5	2	94	354
Hourly Total	0	41	164	37	13	242	0	96	76	19	4	191	0	34	381	109	1	524	0	74	306	38	4	418	1375
5:00 PM	0	7	39	13	0	59	0	13	26	10	0	49	0	5	85	32	0	122	0	19	86	9	0	114	344
5:15 PM	0	13	49	5	0	67	1	14	21	10	0	46	0	4	117	39	0	160	0	20	75	7	0	102	375
5:30 PM	0	16	42	9	0	67	0	21	18	16	0	55	0	13	104	36	0	153	0	19	72	14	0	105	380
5:45 PM	0	14	30	6	0	50	0	14	16	5	0	35	0	7	86	41	0	134	0	15	102	11	0	128	347
Hourly Total	0	50	160	33	0	243	1	62	81	41	0	185	0	29	392	148	0	569	0	73	335	41	0	449	1446
6:00 PM	0	15	38	8	0	61	0	18	19	6	0	43	0	6	89	38	0	133	0	15	96	12	0	123	360
6:15 PM	0	10	43	6	0	59	0	18	14	12	0	44	0	8	95	19	0	122	0	25	77	12	0	114	339
Grand Total	0	256	660	149	13	1065	3	542	716	183	4	1444	0	124	1882	485	2	2491	1	284	1883	306	5	2474	7474
Approach %	0.0	24.0	62.0	14.0	-	-	0.2	37.5	49.6	12.7	-	-	0.0	5.0	75.6	19.5	-	-	0.0	11.5	76.1	12.4	-	-	-
Total %	0.0	3.4	8.8	2.0	-	14.2	0.0	7.3	9.6	2.4	-	19.3	0.0	1.7	25.2	6.5	-	33.3	0.0	3.8	25.2	4.1	-	33.1	-
Lights	0	251	642	149	-	1042	3	534	706	178	-	1421	0	120	1845	477	-	2442	1	280	1839	302	-	2422	7327

% Lights	-	98.0	97.3	100.0	-	97.8	100.0	98.5	98.6	97.3	-	98.4	-	96.8	98.0	98.4	-	98.0	100.0	98.6	97.7	98.7	-	97.9	98.0
Mediums	0	5	17	0	-	22	0	8	10	4	-	22	0	3	33	8	-	44	0	4	41	4	-	49	137
% Mediums	-	2.0	2.6	0.0	-	2.1	0.0	1.5	1.4	2.2	-	1.5	-	2.4	1.8	1.6	-	1.8	0.0	1.4	2.2	1.3	-	2.0	1.8
Articulated Trucks	0	0	1	0	-	1	0	0	0	1	-	1	0	1	4	0	-	5	0	0	2	0	-	2	9
% Articulated Trucks	-	0.0	0.2	0.0	-	0.1	0.0	0.0	0.0	0.5	-	0.1	-	0.8	0.2	0.0	-	0.2	0.0	0.0	0.1	0.0	-	0.1	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Bicycles on Road	-	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	0.1	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	13	-	-	-	-	-	4	-	-	-	-	-	2	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Lee Engineering, LLC
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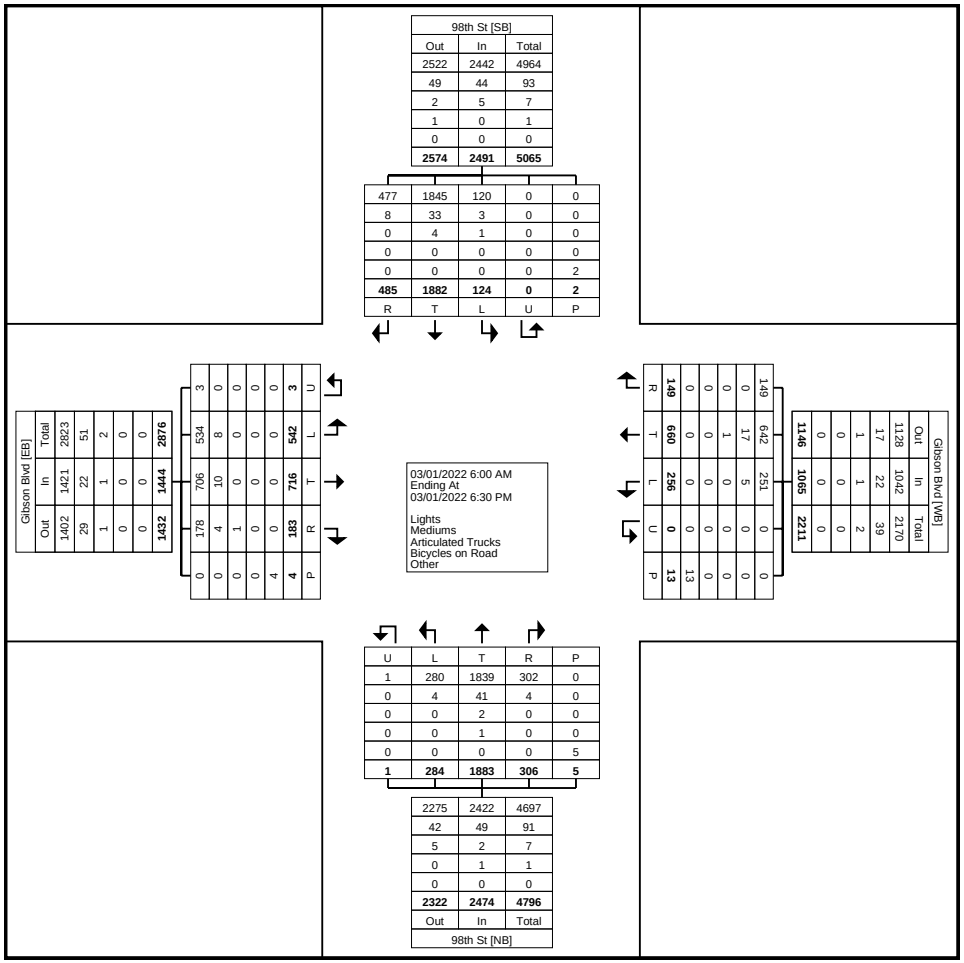
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 jpham@lee-eng.com

Count Name: NM303.03 98th St and Gibson Gas Station
Site Code:
Start Date: 03/01/2022



Turning Movement Data Plot

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 jpham@lee-eng.com

Count Name: NM303.03 98th St and Gibson Gas Station
Site Code:
Start Date: 03/01/2022

Turning Movement Peak Hour Data (6:45 AM)

Start Time	Gibson Blvd Westbound						Gibson Blvd Eastbound						98th St Southbound						98th St Northbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
6:45 AM	0	8	18	5	0	31	0	23	52	12	0	87	0	4	66	8	0	78	0	10	81	12	0	103	299
7:00 AM	0	16	14	4	0	34	0	35	46	13	0	94	0	1	106	19	0	126	0	7	77	12	0	96	350
7:15 AM	0	13	23	1	0	37	0	40	62	6	0	108	0	5	84	5	0	94	0	17	114	25	0	156	395
7:30 AM	0	18	24	10	0	52	1	20	71	13	0	105	0	3	67	7	0	77	1	4	101	32	0	138	372
Total	0	55	79	20	0	154	1	118	231	44	0	394	0	13	323	39	0	375	1	38	373	81	0	493	1416
Approach %	0.0	35.7	51.3	13.0	-	-	0.3	29.9	58.6	11.2	-	-	0.0	3.5	86.1	10.4	-	-	0.2	7.7	75.7	16.4	-	-	-
Total %	0.0	3.9	5.6	1.4	-	10.9	0.1	8.3	16.3	3.1	-	27.8	0.0	0.9	22.8	2.8	-	26.5	0.1	2.7	26.3	5.7	-	34.8	-
PHF	0.000	0.764	0.823	0.500	-	0.740	0.250	0.738	0.813	0.846	-	0.912	0.000	0.650	0.762	0.513	-	0.744	0.250	0.559	0.818	0.633	-	0.790	0.896
Lights	0	53	72	20	-	145	1	114	229	42	-	386	0	12	312	36	-	360	1	38	361	79	-	479	1370
% Lights	-	96.4	91.1	100.0	-	94.2	100.0	96.6	99.1	95.5	-	98.0	-	92.3	96.6	92.3	-	96.0	100.0	100.0	96.8	97.5	-	97.2	96.8
Mediums	0	2	7	0	-	9	0	4	2	2	-	8	0	1	10	3	-	14	0	0	12	2	-	14	45
% Mediums	-	3.6	8.9	0.0	-	5.8	0.0	3.4	0.9	4.5	-	2.0	-	7.7	3.1	7.7	-	3.7	0.0	0.0	3.2	2.5	-	2.8	3.2
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.3	0.0	-	0.3	0.0	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: NM303.03 98th St and Gibson Gas Station
Site Code:
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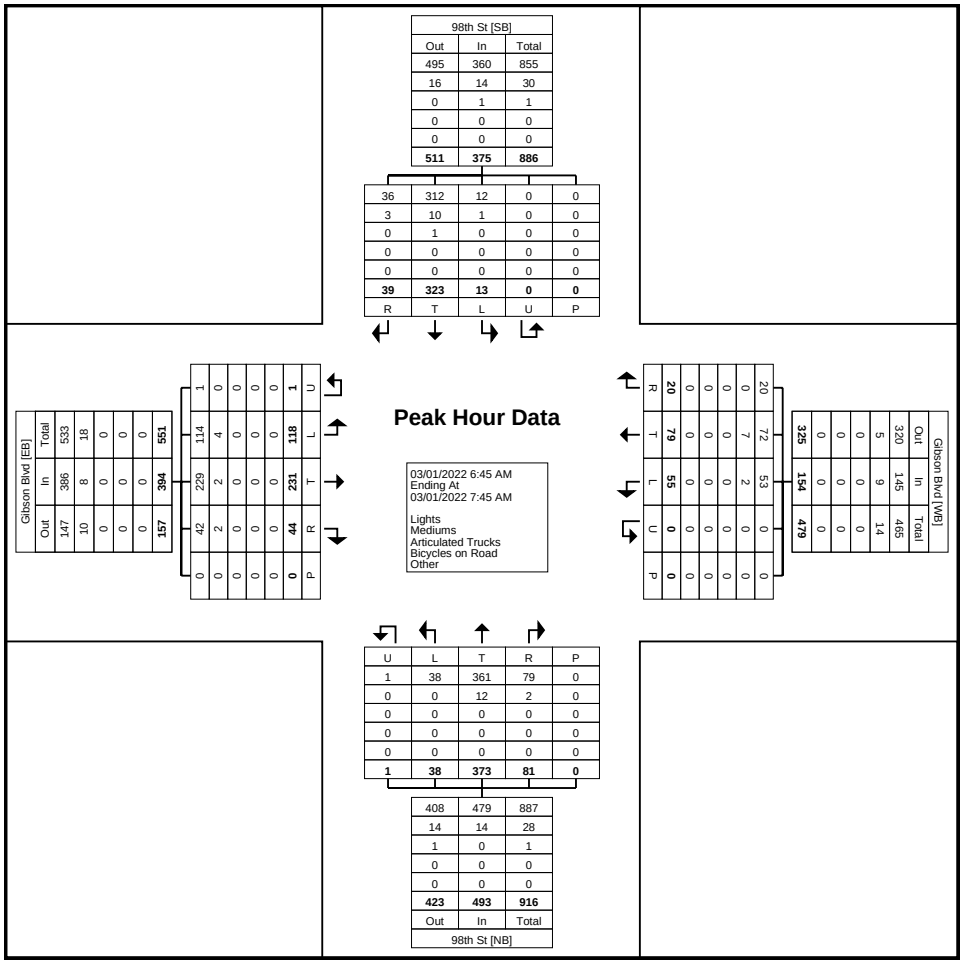

Turning Movement Peak Hour Data Plot (6:45 AM)

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 jpham@lee-eng.com

Count Name: NM303.03 98th St and Gibson Gas Station
Site Code:
Start Date: 03/01/2022

Turning Movement Peak Hour Data (5:15 PM)

Start Time	Gibson Blvd Westbound						Gibson Blvd Eastbound						98th St Southbound						98th St Northbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:15 PM	0	13	49	5	0	67	1	14	21	10	0	46	0	4	117	39	0	160	0	20	75	7	0	102	375
5:30 PM	0	16	42	9	0	67	0	21	18	16	0	55	0	13	104	36	0	153	0	19	72	14	0	105	380
5:45 PM	0	14	30	6	0	50	0	14	16	5	0	35	0	7	86	41	0	134	0	15	102	11	0	128	347
6:00 PM	0	15	38	8	0	61	0	18	19	6	0	43	0	6	89	38	0	133	0	15	96	12	0	123	360
Total	0	58	159	28	0	245	1	67	74	37	0	179	0	30	396	154	0	580	0	69	345	44	0	458	1462
Approach %	0.0	23.7	64.9	11.4	-	-	0.6	37.4	41.3	20.7	-	-	0.0	5.2	68.3	26.6	-	-	0.0	15.1	75.3	9.6	-	-	-
Total %	0.0	4.0	10.9	1.9	-	16.8	0.1	4.6	5.1	2.5	-	12.2	0.0	2.1	27.1	10.5	-	39.7	0.0	4.7	23.6	3.0	-	31.3	-
PHF	0.000	0.906	0.811	0.778	-	0.914	0.250	0.798	0.881	0.578	-	0.814	0.000	0.577	0.846	0.939	-	0.906	0.000	0.863	0.846	0.786	-	0.895	0.962
Lights	0	58	158	28	-	244	1	66	73	36	-	176	0	28	392	153	-	573	0	69	342	44	-	455	1448
% Lights	-	100.0	99.4	100.0	-	99.6	100.0	98.5	98.6	97.3	-	98.3	-	93.3	99.0	99.4	-	98.8	-	100.0	99.1	100.0	-	99.3	99.0
Mediums	0	0	1	0	-	1	0	1	1	0	-	2	0	2	4	1	-	7	0	0	3	0	-	3	13
% Mediums	-	0.0	0.6	0.0	-	0.4	0.0	1.5	1.4	0.0	-	1.1	-	6.7	1.0	0.6	-	1.2	-	0.0	0.9	0.0	-	0.7	0.9
Articulated Trucks	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	2.7	-	0.6	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Lee Engineering, LLC
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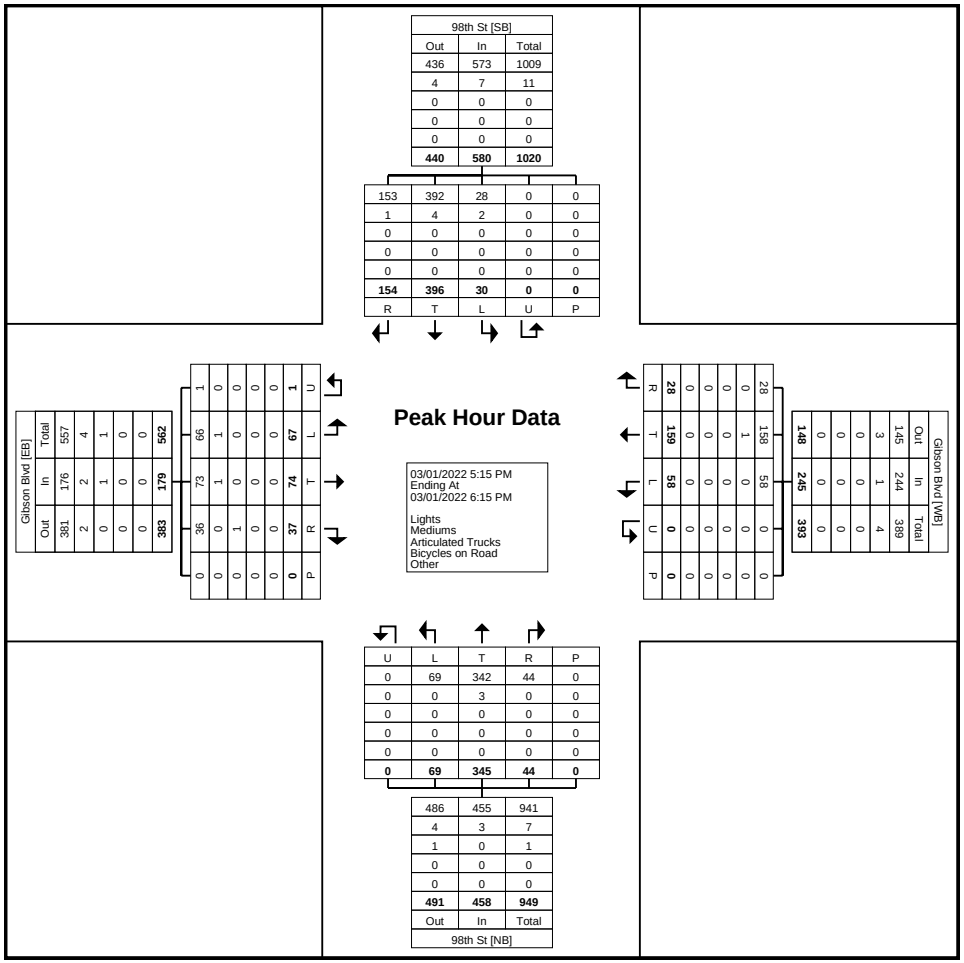
5053380988 jpham@lee-eng.com

Count Name: NM303.03 98th St and Gibson
Gas Station
Site Code:
Start Date: 03/01/2022



Turning Movement Peak Hour Data Plot (5:15 PM)

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 jpham@lee-eng.com

Count Name: NM303.03 98th St and Gibson Gas Station
Site Code:
Start Date: 03/01/2022

Turning Movement Data

Start Time	Blake Rd Westbound						Blake Rd Eastbound						98th St Southbound						98th St Northbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
6:00 AM	0	8	0	3	0	11	0	3	2	4	0	9	0	9	28	0	0	37	0	2	34	7	0	43	100
6:15 AM	0	5	0	8	0	13	0	1	5	14	0	20	0	6	34	1	0	41	0	3	47	20	0	70	144
6:30 AM	0	11	5	9	0	25	0	3	4	15	0	22	0	11	56	4	0	71	0	2	55	22	0	79	197
6:45 AM	0	17	3	12	0	32	0	4	16	9	1	29	0	20	71	1	0	92	0	6	73	23	0	102	255
Hourly Total	0	41	8	32	0	81	0	11	27	42	1	80	0	46	189	6	0	241	0	13	209	72	0	294	696
7:00 AM	0	27	4	10	0	41	0	1	8	12	0	21	1	21	122	2	0	146	0	4	75	37	0	116	324
7:15 AM	0	26	3	11	0	40	0	4	8	15	2	27	1	11	95	0	0	107	0	5	120	36	0	161	335
7:30 AM	0	13	5	11	0	29	0	1	19	18	0	38	0	20	83	1	1	104	0	1	120	34	0	155	326
7:45 AM	0	14	10	15	0	39	0	1	15	15	0	31	1	16	61	2	0	80	3	11	87	32	0	133	283
Hourly Total	0	80	22	47	0	149	0	7	50	60	2	117	3	68	361	5	1	437	3	21	402	139	0	565	1268
8:00 AM	0	9	7	12	2	28	0	6	5	5	0	16	0	15	73	2	0	90	0	2	80	29	0	111	245
8:15 AM	0	10	3	21	0	34	0	3	11	15	0	29	1	16	68	0	0	85	0	3	68	23	0	94	242
8:30 AM	0	14	10	9	1	33	0	1	6	9	0	16	0	16	51	3	0	70	0	6	78	18	0	102	221
8:45 AM	0	8	7	11	1	26	0	2	10	9	0	21	1	13	37	1	1	52	0	6	78	16	0	100	199
Hourly Total	0	41	27	53	4	121	0	12	32	38	0	82	2	60	229	6	1	297	0	17	304	86	0	407	907
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:30 PM	0	25	17	14	0	56	0	2	5	12	0	19	1	15	69	1	0	86	0	8	75	20	0	103	264
3:45 PM	0	17	9	20	1	46	0	1	13	7	1	21	0	18	102	4	0	124	0	9	83	20	0	112	303
Hourly Total	0	42	26	34	1	102	0	3	18	19	1	40	1	33	171	5	0	210	0	17	158	40	0	215	567
4:00 PM	0	36	17	18	0	71	0	2	9	13	0	24	0	25	71	5	0	101	0	11	92	23	0	126	322
4:15 PM	0	32	15	25	0	72	0	1	5	5	2	11	0	11	78	2	1	91	0	18	87	15	0	120	294
4:30 PM	0	22	9	17	0	48	0	1	4	10	0	15	0	10	103	3	0	116	0	11	76	19	0	106	285
4:45 PM	0	27	16	26	0	69	0	0	9	9	0	18	1	20	104	2	1	127	0	12	70	14	0	96	310
Hourly Total	0	117	57	86	0	260	0	4	27	37	2	68	1	66	356	12	2	435	0	52	325	71	0	448	1211
5:00 PM	0	29	22	29	0	80	0	2	14	18	0	34	0	14	77	3	1	94	1	12	88	20	0	121	329
5:15 PM	0	29	21	24	3	74	0	3	9	8	0	20	0	20	108	6	0	134	0	16	74	22	0	112	340
5:30 PM	0	30	11	15	2	56	0	1	8	10	0	19	0	21	89	1	0	111	2	11	89	15	0	117	303
5:45 PM	0	31	17	25	0	73	0	3	6	7	0	16	1	22	64	6	1	93	1	7	101	17	0	126	308
Hourly Total	0	119	71	93	5	283	0	9	37	43	0	89	1	77	338	16	2	432	4	46	352	74	0	476	1280
6:00 PM	0	23	18	31	0	72	0	5	6	12	0	23	0	17	72	6	0	95	0	13	78	15	0	106	296
6:15 PM	0	29	16	30	0	75	0	3	7	10	0	20	1	24	85	5	0	115	0	10	83	21	0	114	324
Grand Total	0	492	245	406	10	1143	0	54	204	261	6	519	9	391	1801	61	6	2262	7	189	1911	518	0	2625	6549
Approach %	0.0	43.0	21.4	35.5	-	-	0.0	10.4	39.3	50.3	-	-	0.4	17.3	79.6	2.7	-	-	0.3	7.2	72.8	19.7	-	-	-
Total %	0.0	7.5	3.7	6.2	-	17.5	0.0	0.8	3.1	4.0	-	7.9	0.1	6.0	27.5	0.9	-	34.5	0.1	2.9	29.2	7.9	-	40.1	-
Lights	0	482	244	396	-	1122	0	53	200	254	-	507	9	385	1756	59	-	2209	7	188	1872	510	-	2577	6415

% Lights	-	98.0	99.6	97.5	-	98.2	-	98.1	98.0	97.3	-	97.7	100.0	98.5	97.5	96.7	-	97.7	100.0	99.5	98.0	98.5	-	98.2	98.0
Mediums	0	10	1	10	-	21	0	1	4	7	-	12	0	6	40	2	-	48	0	0	36	7	-	43	124
% Mediums	-	2.0	0.4	2.5	-	1.8	-	1.9	2.0	2.7	-	2.3	0.0	1.5	2.2	3.3	-	2.1	0.0	0.0	1.9	1.4	-	1.6	1.9
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	5	0	-	5	0	1	2	1	-	4	9
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.3	0.0	-	0.2	0.0	0.5	0.1	0.2	-	0.2	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Bicycles on Road	-	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	0.1	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	10	-	-	-	-	-	6	-	-	-	-	-	6	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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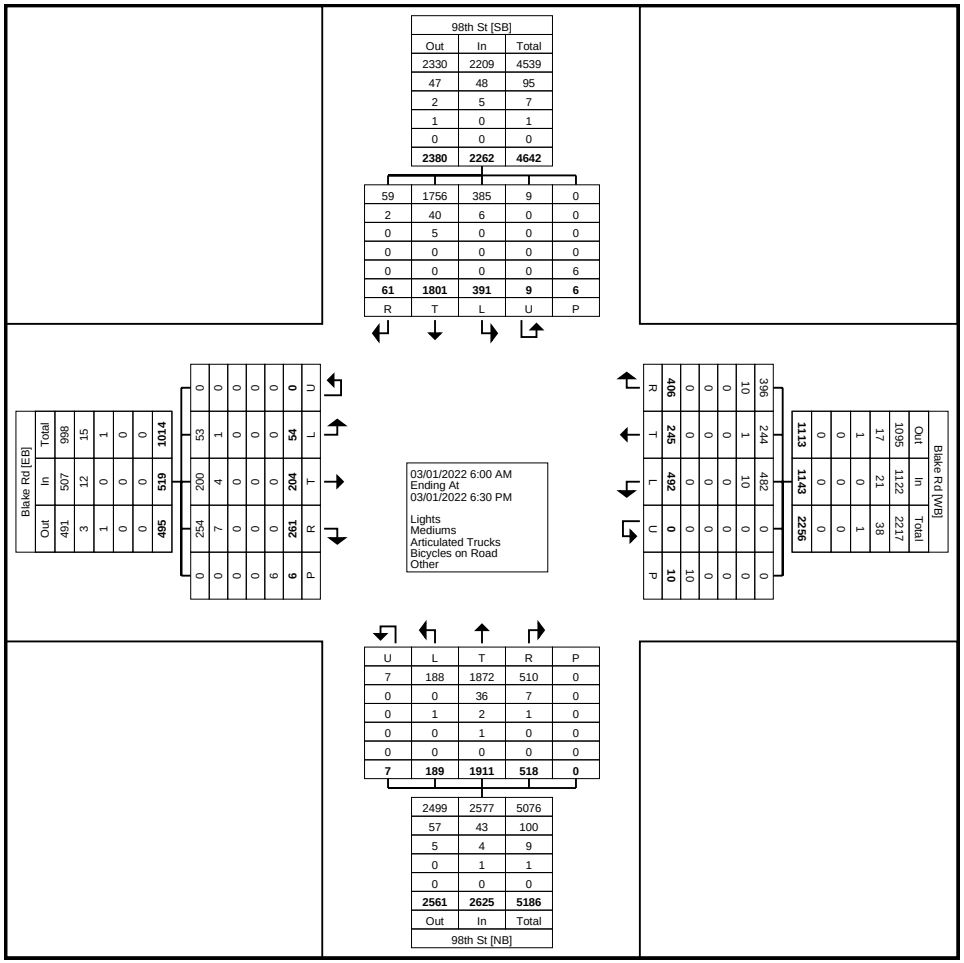

Turning Movement Data Plot

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Count Name: NM303.03 98th St and Gibson Gas Station
Site Code:
Start Date: 03/01/2022

Turning Movement Peak Hour Data (7:00 AM)

Start Time	Blake Rd Westbound						Blake Rd Eastbound						98th St Southbound						98th St Northbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	27	4	10	0	41	0	1	8	12	0	21	1	21	122	2	0	146	0	4	75	37	0	116	324
7:15 AM	0	26	3	11	0	40	0	4	8	15	2	27	1	11	95	0	0	107	0	5	120	36	0	161	335
7:30 AM	0	13	5	11	0	29	0	1	19	18	0	38	0	20	83	1	1	104	0	1	120	34	0	155	326
7:45 AM	0	14	10	15	0	39	0	1	15	15	0	31	1	16	61	2	0	80	3	11	87	32	0	133	283
Total	0	80	22	47	0	149	0	7	50	60	2	117	3	68	361	5	1	437	3	21	402	139	0	565	1268
Approach %	0.0	53.7	14.8	31.5	-	-	0.0	6.0	42.7	51.3	-	-	0.7	15.6	82.6	1.1	-	-	0.5	3.7	71.2	24.6	-	-	-
Total %	0.0	6.3	1.7	3.7	-	11.8	0.0	0.6	3.9	4.7	-	9.2	0.2	5.4	28.5	0.4	-	34.5	0.2	1.7	31.7	11.0	-	44.6	-
PHF	0.000	0.741	0.550	0.783	-	0.909	0.000	0.438	0.658	0.833	-	0.770	0.750	0.810	0.740	0.625	-	0.748	0.250	0.477	0.838	0.939	-	0.877	0.946
Lights	0	79	22	44	-	145	0	6	49	57	-	112	3	66	356	5	-	430	3	20	392	136	-	551	1238
% Lights	-	98.8	100.0	93.6	-	97.3	-	85.7	98.0	95.0	-	95.7	100.0	97.1	98.6	100.0	-	98.4	100.0	95.2	97.5	97.8	-	97.5	97.6
Mediums	0	1	0	3	-	4	0	1	1	3	-	5	0	2	3	0	-	5	0	0	10	3	-	13	27
% Mediums	-	1.3	0.0	6.4	-	2.7	-	14.3	2.0	5.0	-	4.3	0.0	2.9	0.8	0.0	-	1.1	0.0	0.0	2.5	2.2	-	2.3	2.1
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	1	0	0	-	1	3
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.6	0.0	-	0.5	0.0	4.8	0.0	0.0	-	0.2	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
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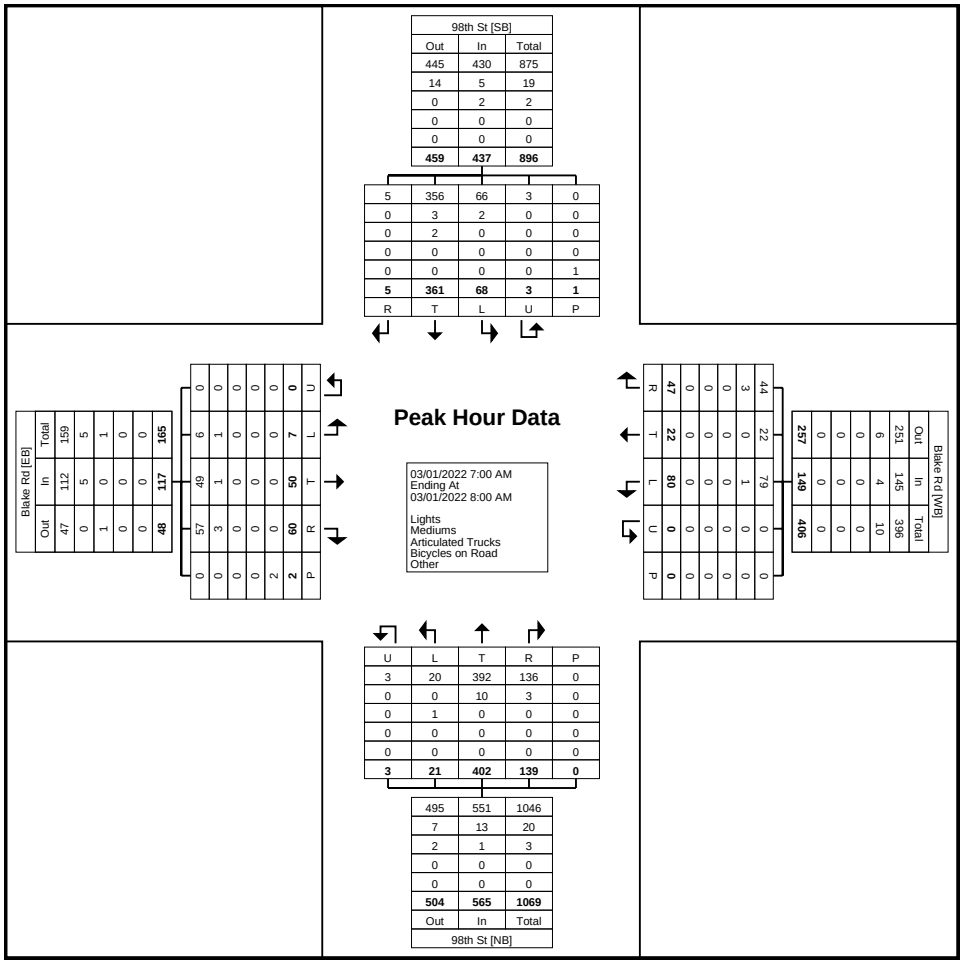
5053380988 jpham@lee-eng.com

Count Name: NM303.03 98th St and Gibson Gas Station
Site Code:
Start Date: 03/01/2022



Turning Movement Peak Hour Data Plot (7:00 AM)

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 jpham@lee-eng.com

Count Name: NM303.03 98th St and Gibson Gas Station
Site Code:
Start Date: 03/01/2022

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Blake Rd Westbound						Blake Rd Eastbound						98th St Southbound						98th St Northbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:45 PM	0	27	16	26	0	69	0	0	9	9	0	18	1	20	104	2	1	127	0	12	70	14	0	96	310
5:00 PM	0	29	22	29	0	80	0	2	14	18	0	34	0	14	77	3	1	94	1	12	88	20	0	121	329
5:15 PM	0	29	21	24	3	74	0	3	9	8	0	20	0	20	108	6	0	134	0	16	74	22	0	112	340
5:30 PM	0	30	11	15	2	56	0	1	8	10	0	19	0	21	89	1	0	111	2	11	89	15	0	117	303
Total	0	115	70	94	5	279	0	6	40	45	0	91	1	75	378	12	2	466	3	51	321	71	0	446	1282
Approach %	0.0	41.2	25.1	33.7	-	-	0.0	6.6	44.0	49.5	-	-	0.2	16.1	81.1	2.6	-	-	0.7	11.4	72.0	15.9	-	-	-
Total %	0.0	9.0	5.5	7.3	-	21.8	0.0	0.5	3.1	3.5	-	7.1	0.1	5.9	29.5	0.9	-	36.3	0.2	4.0	25.0	5.5	-	34.8	-
PHF	0.000	0.958	0.795	0.810	-	0.872	0.000	0.500	0.714	0.625	-	0.669	0.250	0.893	0.875	0.500	-	0.869	0.375	0.797	0.902	0.807	-	0.921	0.943
Lights	0	113	70	94	-	277	0	6	40	44	-	90	1	74	373	12	-	460	3	51	318	70	-	442	1269
% Lights	-	98.3	100.0	100.0	-	99.3	-	100.0	100.0	97.8	-	98.9	100.0	98.7	98.7	100.0	-	98.7	100.0	100.0	99.1	98.6	-	99.1	99.0
Mediums	0	2	0	0	-	2	0	0	0	1	-	1	0	1	4	0	-	5	0	0	3	1	-	4	12
% Mediums	-	1.7	0.0	0.0	-	0.7	-	0.0	0.0	2.2	-	1.1	0.0	1.3	1.1	0.0	-	1.1	0.0	0.0	0.9	1.4	-	0.9	0.9
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.3	0.0	-	0.2	0.0	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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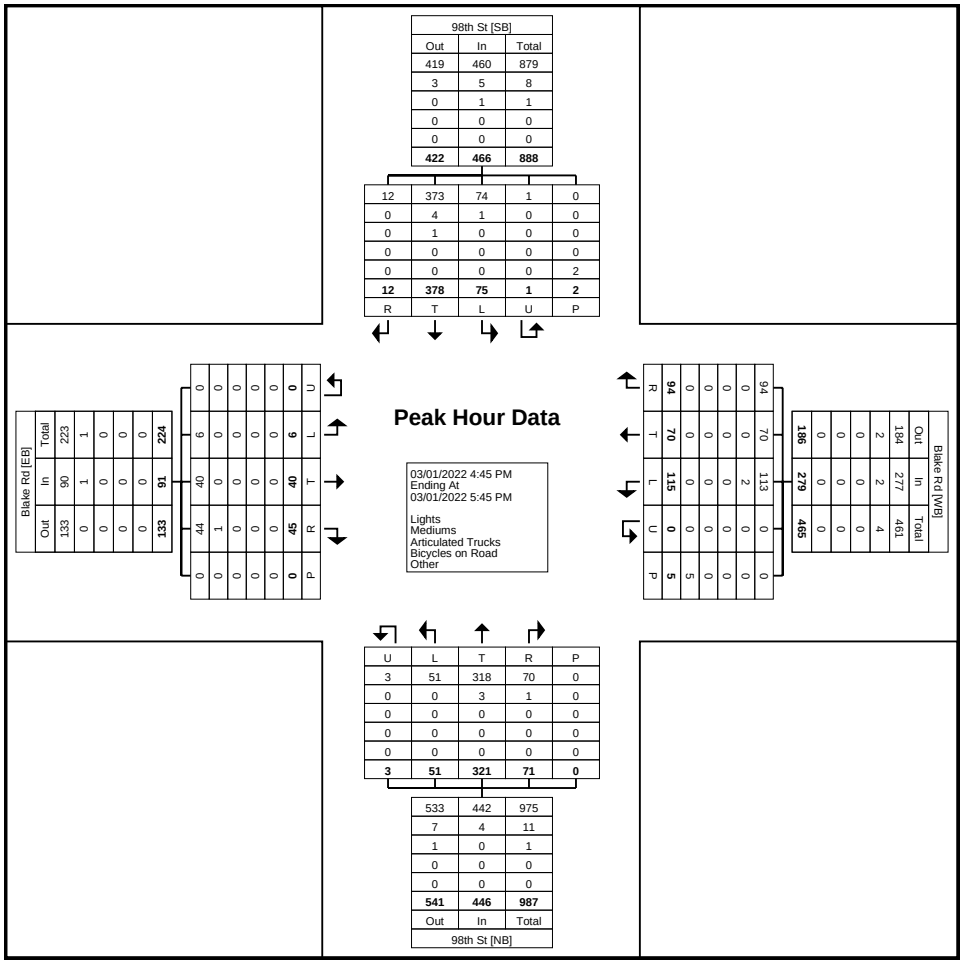

Turning Movement Peak Hour Data Plot (4:45 PM)

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Count Name: NM303.03 98th St and Gibson
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Start Date: 03/01/2022

Turning Movement Data

Start Time	Gibson Blvd Westbound						Gibson Blvd Eastbound						Unser Blvd Southbound						Unser Blvd Northbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
6:00 AM	0	3	0	4	0	7	0	42	1	9	0	52	0	0	48	5	0	53	1	2	60	2	0	65	177
6:15 AM	0	8	1	12	1	21	0	66	1	14	0	81	0	1	56	14	0	71	0	4	116	3	0	123	296
6:30 AM	0	4	8	11	0	23	0	76	0	20	0	96	0	2	68	16	0	86	0	4	148	1	0	153	358
6:45 AM	0	13	1	11	0	25	0	83	2	16	0	101	0	5	100	24	0	129	0	8	132	2	0	142	397
Hourly Total	0	28	10	38	1	76	0	267	4	59	0	330	0	8	272	59	0	339	1	18	456	8	0	483	1228
7:00 AM	0	19	4	13	0	36	0	97	1	13	0	111	0	1	140	32	0	173	0	14	179	3	0	196	516
7:15 AM	0	9	9	9	0	27	0	111	4	16	0	131	0	5	133	32	0	170	0	23	197	3	0	223	551
7:30 AM	0	12	21	11	0	44	0	131	10	37	0	178	3	6	170	40	0	219	0	26	151	7	0	184	625
7:45 AM	1	13	5	8	1	27	0	75	5	22	0	102	1	12	155	26	0	194	1	25	164	9	0	199	522
Hourly Total	1	53	39	41	1	134	0	414	20	88	0	522	4	24	598	130	0	756	1	88	691	22	0	802	2214
8:00 AM	0	14	12	5	0	31	1	74	4	25	0	104	0	9	138	33	0	180	0	15	132	8	0	155	470
8:15 AM	0	8	0	7	0	15	0	56	4	9	0	69	0	2	96	28	0	126	0	10	115	2	0	127	337
8:30 AM	0	5	0	10	0	15	0	74	1	15	1	90	0	1	122	26	0	149	0	8	107	6	0	121	375
8:45 AM	0	4	1	1	0	6	0	28	1	13	0	42	0	3	80	28	0	111	0	16	100	1	0	117	276
Hourly Total	0	31	13	23	0	67	1	232	10	62	1	305	0	15	436	115	0	566	0	49	454	17	0	520	1458
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:30 PM	0	10	6	8	0	24	0	58	2	11	0	71	0	12	184	58	0	254	0	13	128	11	0	152	501
3:45 PM	0	13	7	4	0	24	1	52	10	30	0	93	1	21	149	69	0	240	0	33	130	13	0	176	533
Hourly Total	0	23	13	12	0	48	1	110	12	41	0	164	1	33	333	127	0	494	0	46	258	24	0	328	1034
4:00 PM	0	7	2	10	0	19	1	59	5	18	0	83	1	8	188	76	1	273	0	19	147	11	0	177	552
4:15 PM	0	14	7	2	0	23	0	36	3	12	0	51	2	15	169	78	0	264	0	34	141	10	0	185	523
4:30 PM	0	8	5	9	2	22	0	37	7	16	0	60	2	11	172	86	0	271	0	26	126	14	0	166	519
4:45 PM	0	8	10	3	0	21	0	37	2	15	0	54	0	13	190	80	0	283	0	18	138	11	0	167	525
Hourly Total	0	37	24	24	2	85	1	169	17	61	0	248	5	47	719	320	1	1091	0	97	552	46	0	695	2119
5:00 PM	0	14	4	6	1	24	0	51	8	32	0	91	2	21	166	84	0	273	1	34	118	10	0	163	551
5:15 PM	0	13	5	10	0	28	0	39	6	14	0	59	0	15	138	88	0	241	0	24	113	15	0	152	480
5:30 PM	0	10	4	8	1	22	0	46	4	10	0	60	0	17	184	69	0	270	0	25	115	18	0	158	510
5:45 PM	0	13	3	5	2	21	0	49	4	17	0	70	0	20	161	89	0	270	0	32	123	11	0	166	527
Hourly Total	0	50	16	29	4	95	0	185	22	73	0	280	2	73	649	330	0	1054	1	115	469	54	0	639	2068
6:00 PM	0	6	12	11	0	29	0	60	2	25	0	87	0	29	150	70	0	249	1	37	112	18	0	168	533
6:15 PM	0	17	1	5	0	23	0	48	6	22	0	76	1	14	161	83	0	259	0	32	97	9	0	138	496
Grand Total	1	245	128	183	8	557	3	1485	93	431	1	2012	13	243	3318	1234	1	4808	4	482	3089	198	0	3773	11150
Approach %	0.2	44.0	23.0	32.9	-	-	0.1	73.8	4.6	21.4	-	-	0.3	5.1	69.0	25.7	-	-	0.1	12.8	81.9	5.2	-	-	-
Total %	0.0	2.2	1.1	1.6	-	5.0	0.0	13.3	0.8	3.9	-	18.0	0.1	2.2	29.8	11.1	-	43.1	0.0	4.3	27.7	1.8	-	33.8	-
Lights	1	243	124	179	-	547	3	1475	92	421	-	1991	12	239	3249	1217	-	4717	4	478	3031	195	-	3708	10963

% Lights	100.0	99.2	96.9	97.8	-	98.2	100.0	99.3	98.9	97.7	-	99.0	92.3	98.4	97.9	98.6	-	98.1	100.0	99.2	98.1	98.5	-	98.3	98.3
Mediums	0	0	4	3	-	7	0	10	1	5	-	16	1	4	48	15	-	68	0	2	39	2	-	43	134
% Mediums	0.0	0.0	3.1	1.6	-	1.3	0.0	0.7	1.1	1.2	-	0.8	7.7	1.6	1.4	1.2	-	1.4	0.0	0.4	1.3	1.0	-	1.1	1.2
Articulated Trucks	0	1	0	1	-	2	0	0	0	4	-	4	0	0	21	2	-	23	0	2	19	1	-	22	51
% Articulated Trucks	0.0	0.4	0.0	0.5	-	0.4	0.0	0.0	0.0	0.9	-	0.2	0.0	0.0	0.6	0.2	-	0.5	0.0	0.4	0.6	0.5	-	0.6	0.5
Bicycles on Road	0	1	0	0	-	1	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Bicycles on Road	0.0	0.4	0.0	0.0	-	0.2	0.0	0.0	0.0	0.2	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	37.5	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	5	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	62.5	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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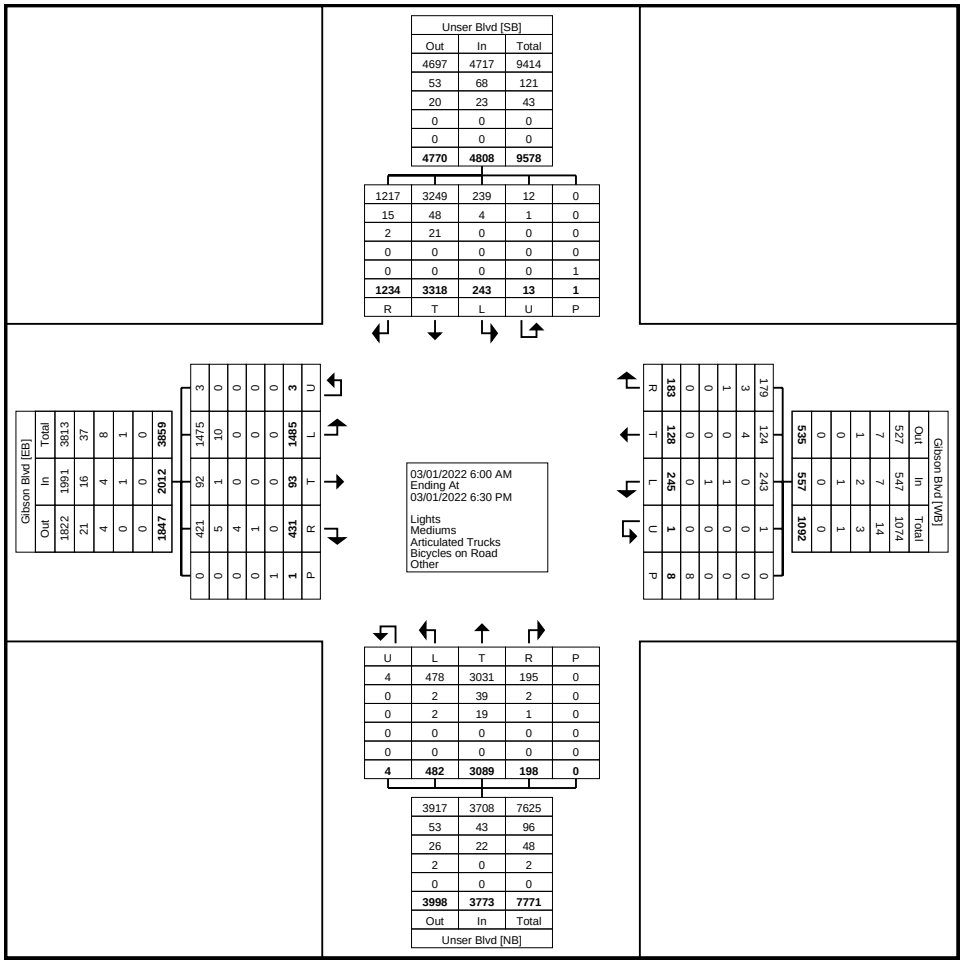

Turning Movement Data Plot

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Count Name: NM303.03 98th St and Gibson Gas Station
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Turning Movement Peak Hour Data (7:00 AM)

Start Time	Gibson Blvd Westbound						Gibson Blvd Eastbound						Unser Blvd Southbound						Unser Blvd Northbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	19	4	13	0	36	0	97	1	13	0	111	0	1	140	32	0	173	0	14	179	3	0	196	516
7:15 AM	0	9	9	9	0	27	0	111	4	16	0	131	0	5	133	32	0	170	0	23	197	3	0	223	551
7:30 AM	0	12	21	11	0	44	0	131	10	37	0	178	3	6	170	40	0	219	0	26	151	7	0	184	625
7:45 AM	1	13	5	8	1	27	0	75	5	22	0	102	1	12	155	26	0	194	1	25	164	9	0	199	522
Total	1	53	39	41	1	134	0	414	20	88	0	522	4	24	598	130	0	756	1	88	691	22	0	802	2214
Approach %	0.7	39.6	29.1	30.6	-	-	0.0	79.3	3.8	16.9	-	-	0.5	3.2	79.1	17.2	-	-	0.1	11.0	86.2	2.7	-	-	-
Total %	0.0	2.4	1.8	1.9	-	6.1	0.0	18.7	0.9	4.0	-	23.6	0.2	1.1	27.0	5.9	-	34.1	0.0	4.0	31.2	1.0	-	36.2	-
PHF	0.250	0.697	0.464	0.788	-	0.761	0.000	0.790	0.500	0.595	-	0.733	0.333	0.500	0.879	0.813	-	0.863	0.250	0.846	0.877	0.611	-	0.899	0.886
Lights	1	51	38	40	-	130	0	412	20	84	-	516	4	22	580	123	-	729	1	86	671	21	-	779	2154
% Lights	100.0	96.2	97.4	97.6	-	97.0	-	99.5	100.0	95.5	-	98.9	100.0	91.7	97.0	94.6	-	96.4	100.0	97.7	97.1	95.5	-	97.1	97.3
Mediums	0	0	1	1	-	2	0	2	0	2	-	4	0	2	13	5	-	20	0	0	13	1	-	14	40
% Mediums	0.0	0.0	2.6	2.4	-	1.5	-	0.5	0.0	2.3	-	0.8	0.0	8.3	2.2	3.8	-	2.6	0.0	0.0	1.9	4.5	-	1.7	1.8
Articulated Trucks	0	1	0	0	-	1	0	0	0	1	-	1	0	0	5	2	-	7	0	2	7	0	-	9	18
% Articulated Trucks	0.0	1.9	0.0	0.0	-	0.7	-	0.0	0.0	1.1	-	0.2	0.0	0.0	0.8	1.5	-	0.9	0.0	2.3	1.0	0.0	-	1.1	0.8
Bicycles on Road	0	1	0	0	-	1	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Bicycles on Road	0.0	1.9	0.0	0.0	-	0.7	-	0.0	0.0	1.1	-	0.2	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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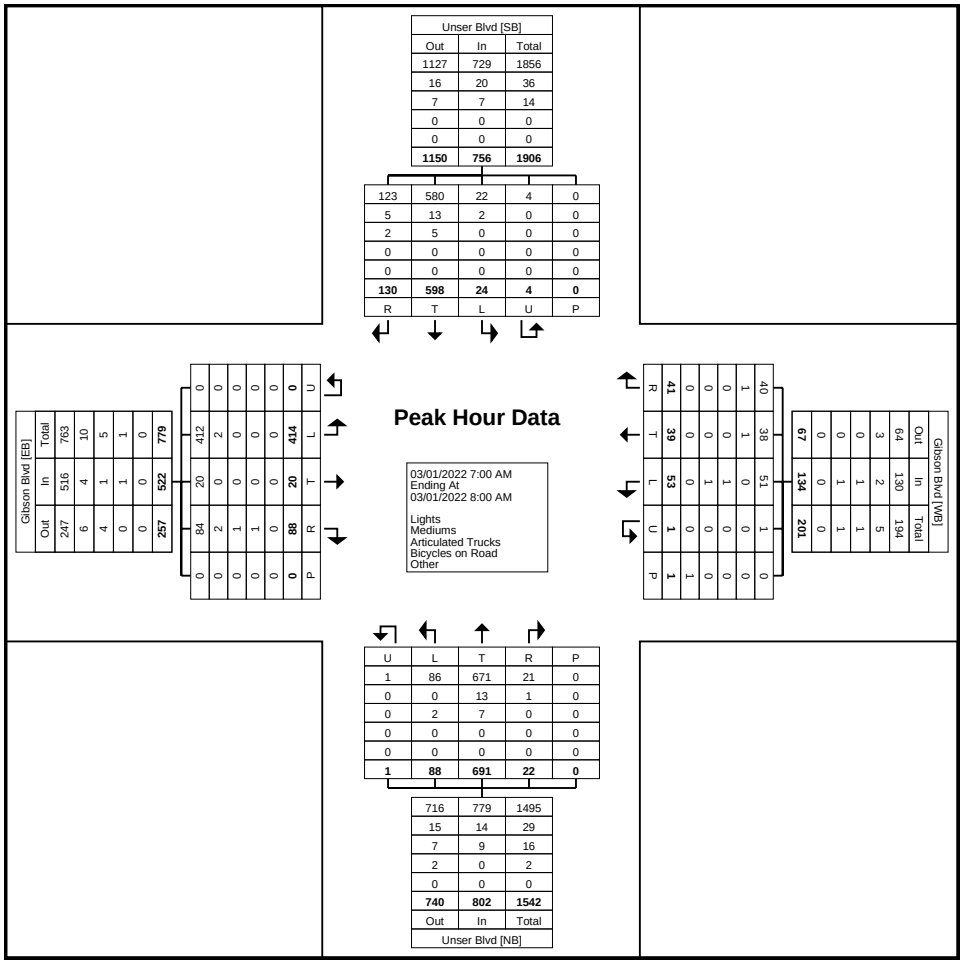

Turning Movement Peak Hour Data Plot (7:00 AM)

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 jpham@lee-eng.com

Count Name: NM303.03 98th St and Gibson Gas Station
Site Code:
Start Date: 03/01/2022

Turning Movement Peak Hour Data (3:45 PM)

Start Time	Gibson Blvd Westbound						Gibson Blvd Eastbound						Unser Blvd Southbound						Unser Blvd Northbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
3:45 PM	0	13	7	4	0	24	1	52	10	30	0	93	1	21	149	69	0	240	0	33	130	13	0	176	533
4:00 PM	0	7	2	10	0	19	1	59	5	18	0	83	1	8	188	76	1	273	0	19	147	11	0	177	552
4:15 PM	0	14	7	2	0	23	0	36	3	12	0	51	2	15	169	78	0	264	0	34	141	10	0	185	523
4:30 PM	0	8	5	9	2	22	0	37	7	16	0	60	2	11	172	86	0	271	0	26	126	14	0	166	519
Total	0	42	21	25	2	88	2	184	25	76	0	287	6	55	678	309	1	1048	0	112	544	48	0	704	2127
Approach %	0.0	47.7	23.9	28.4	-	-	0.7	64.1	8.7	26.5	-	-	0.6	5.2	64.7	29.5	-	-	0.0	15.9	77.3	6.8	-	-	-
Total %	0.0	2.0	1.0	1.2	-	4.1	0.1	8.7	1.2	3.6	-	13.5	0.3	2.6	31.9	14.5	-	49.3	0.0	5.3	25.6	2.3	-	33.1	-
PHF	0.000	0.750	0.750	0.625	-	0.917	0.500	0.780	0.625	0.633	-	0.772	0.750	0.655	0.902	0.898	-	0.960	0.000	0.824	0.925	0.857	-	0.951	0.963
Lights	0	42	20	24	-	86	2	184	25	76	-	287	5	55	670	307	-	1037	0	112	536	47	-	695	2105
% Lights	-	100.0	95.2	96.0	-	97.7	100.0	100.0	100.0	100.0	-	100.0	83.3	100.0	98.8	99.4	-	99.0	-	100.0	98.5	97.9	-	98.7	99.0
Mediums	0	0	1	1	-	2	0	0	0	0	-	0	1	0	8	2	-	11	0	0	6	0	-	6	19
% Mediums	-	0.0	4.8	4.0	-	2.3	0.0	0.0	0.0	0.0	-	0.0	16.7	0.0	1.2	0.6	-	1.0	-	0.0	1.1	0.0	-	0.9	0.9
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	1	-	3	3
% Articulated Trucks	-	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	0.4	2.1	-	0.4	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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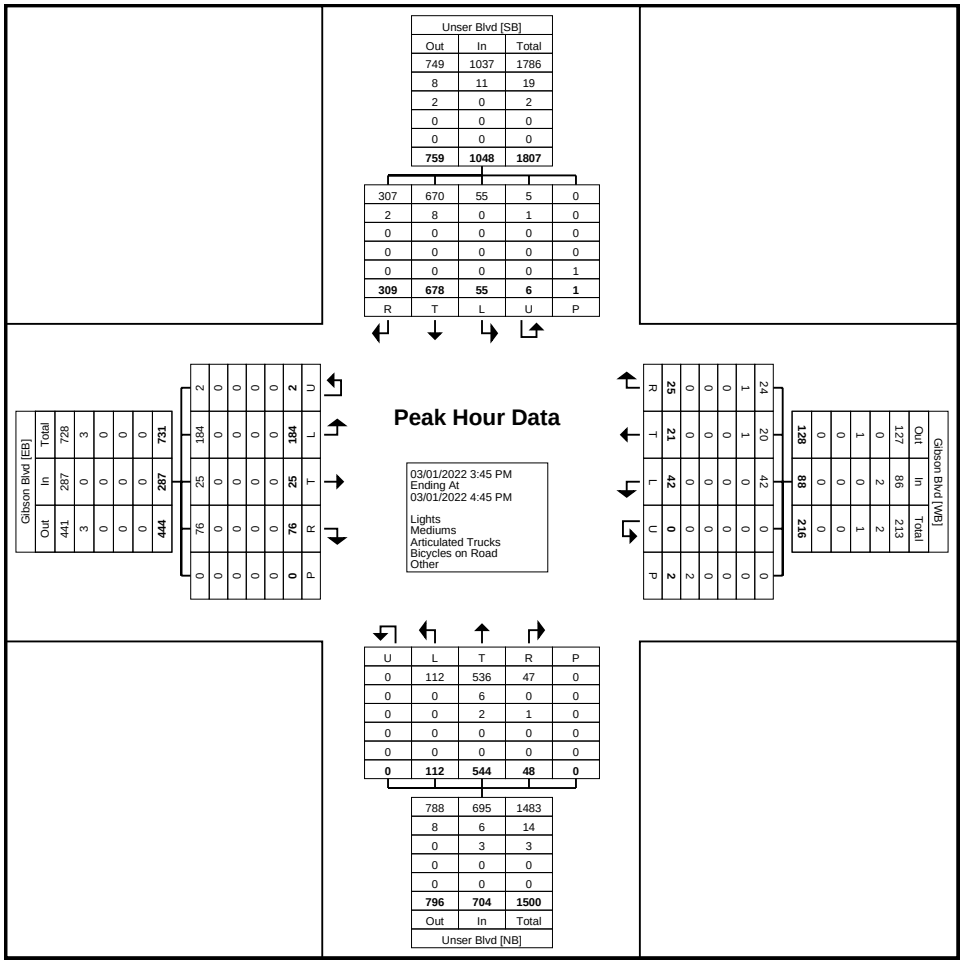
Count Name: NM303.03 98th St and Gibson
Gas Station
Site Code:
Start Date: 03/01/2022



Turning Movement Peak Hour Data Plot (3:45 PM)

Trip Generation Tables

Developer: ATWELL, LLC
Traffic Engineer: Lee Engineering

Site Trips Generation for Entire Development	PEAK HOUR TRIPS			
	AM Peak		PM Peak	
	In	Out	In	Out
	379	380	323	323

ITE Land Use	Units		Weekday		AM Peak			PM Peak			PEAK HOUR TRIPS			
											AM Peak		PM Peak	
			Rate	Trips	Rate	Enter	Exit	Rate	Enter	Exit	In	Out	In	Out
ITE 945 - Gas Station / Convenience Store	24	Fueling Positions	345.75	8298	31.60	50%	50%	26.90	50%	50%	379	380	323	323

Average Pass-By Trips	AM Peak	PM Peak
	76%	75%

Notes:

- Gas Station / Convenience Store (ITE 945) GFA 5.5-10k
Daily Rate: Weekday
Average Rate: 345.75
AM Peak: Peak Hour of Adjacent Street Traffic, One Hour Between 7 AM and 9 AM
Average Rate: 31.6
PM Peak: Peak Hour of Adjacent Street Traffic, One Hour Between 3 PM and 6 PM
Average Rate: 26.9

Convenience Store/Gas Station - GFA (5.5-10k)
(945)

Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Weekday

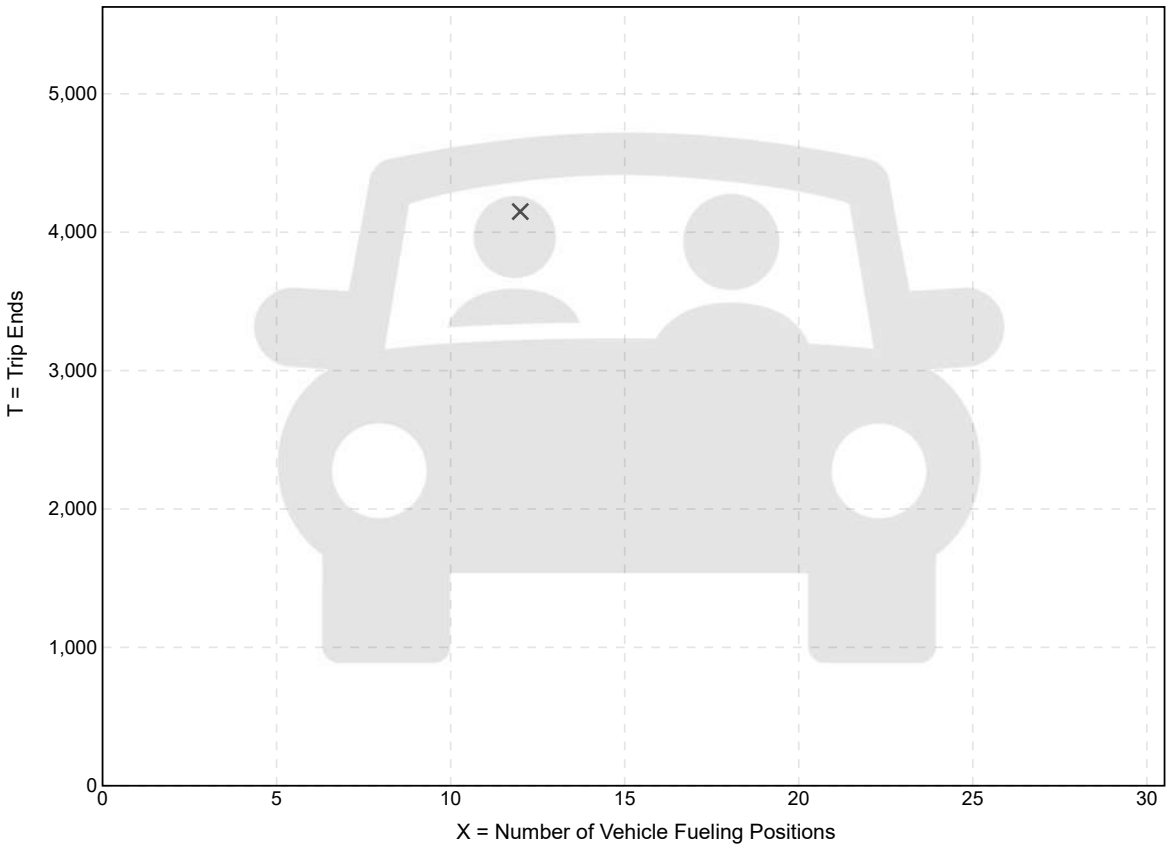
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Vehicle Fueling Positions: 12
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
345.75	345.75 - 345.75	*

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= **

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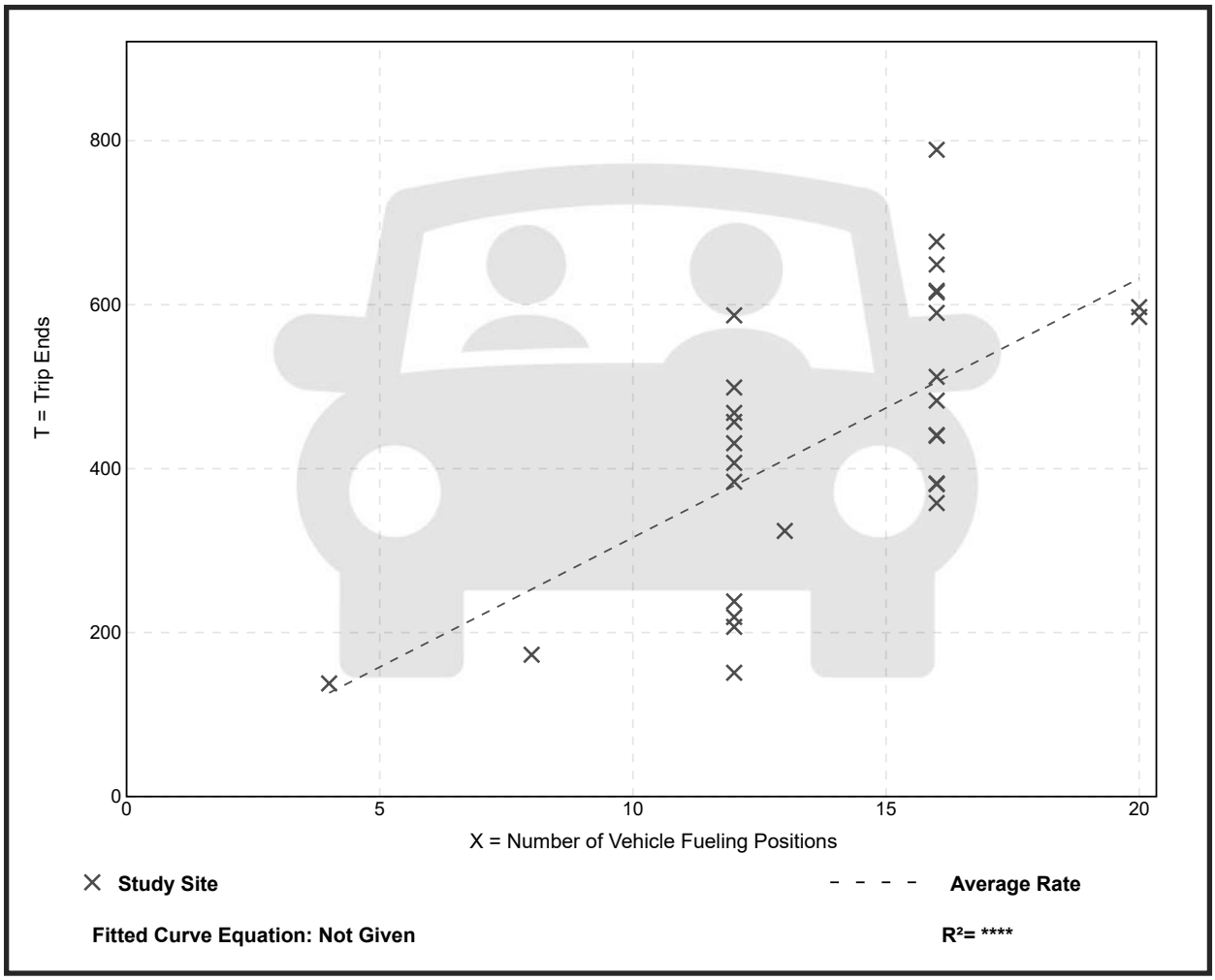
Convenience Store/Gas Station - GFA (5.5-10k)
(945)

Vehicle Trip Ends vs: **Vehicle Fueling Positions**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 29
Avg. Num. of Vehicle Fueling Positions: 14
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
31.60	12.58 - 49.31	9.10

Data Plot and Equation



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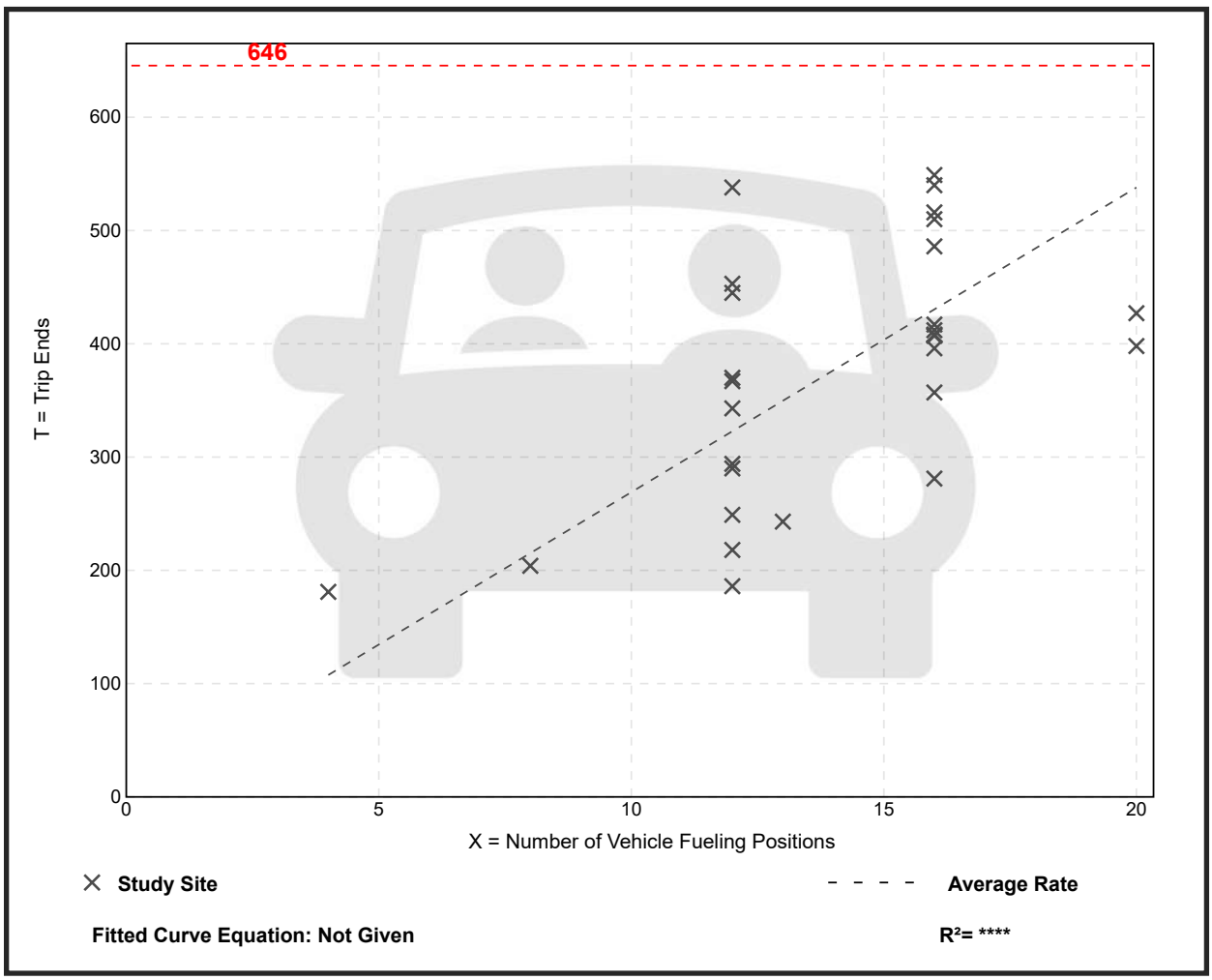
Convenience Store/Gas Station - GFA (5.5-10k)
(945)

Vehicle Trip Ends vs: **Vehicle Fueling Positions**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 29
Avg. Num. of Vehicle Fueling Positions: 14
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
26.90	15.50 - 45.25	6.87

Data Plot and Equation



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Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual* , 11th Edition

Land Use Code	945									
Land Use	Convenience Store/Gas Station									
Setting	General Urban/Suburban									
Time Period	Weekday AM Peak Period									
# Data Sites	16 Sites with between 2 and 8 VFP					28 Sites with between 9 and 20 VFP				
Average Pass-By Rate	60% for Sites with between 2 and 8 VFP					76% for Sites with between 9 and 20 VFP				
	Pass-By Characteristics for Individual Sites									
			Survey		Pass-By	Non-Pass-By Trips			Adj Street Peak	
GFA (000)	VFP	State or Province	Year	# Interviews	Trip (%)	Primary (%)	Diverted (%)	Total (%)	Hour Volume	Source
2	8	Maryland	1992	46	87	13	0	13	2235	25
2.1	6	Maryland	1992	26	58	23	19	42	2080	25
2.1	6	Maryland	1992	26	58	23	19	42	2080	25
2.2	8	Maryland	1992	31	47	34	19	53	1785	25
2.2	< 8	Indiana	1993	79	56	6	38	44	635	2
2.2	8	Maryland	1992	35	78	9	13	22	7080	25
2.3	6	Maryland	1992	37	32	41	27	68	2080	25
2.3	< 8	Kentucky	1993	58	64	5	31	36	1255	2
2.3	6	Maryland	1992	37	32	41	27	68	2080	25
2.4	< 8	Kentucky	1993	—	48	17	35	52	1210	2
2.6	< 8	Kentucky	1993	—	72	15	13	28	940	2
2.8	< 8	Kentucky	1993	—	54	11	35	46	1240	2
3	< 8	Indiana	1993	62	74	10	16	26	790	2
3.6	< 8	Kentucky	1993	49	67	4	29	33	1985	2
3.7	< 8	Kentucky	1993	49	66	16	18	34	990	2
4.694	12	Maryland	2000	—	72	—	—	28	2440	30
4.694	12	Maryland	2000	—	78	—	—	22	1561	30
4.694	12	Maryland	2000	—	79	—	—	21	2764	30
4.848	12	Virginia	2000	—	55	—	—	45	1398	30
5.06	12	Pennsylvania	2000	—	84	—	—	16	3219	30
5.242	12	Virginia	2000	—	74	—	—	26	1160	30
5.242	12	Virginia	2000	—	71	—	—	29	548	30
5.488	12	Delaware	2000	—	80	—	—	20	—	30
5.5	12	Pennsylvania	2000	—	85	—	—	15	2975	30
4.2	< 8	Kentucky	1993	47	62	19	19	38	1705	2
4.694	16	Maryland	2000	—	90	—	—	10	2278	30
4.694	16	Delaware	2000	—	74	—	—	26	2185	30
4.694	16	Delaware	2000	—	58	—	—	42	962	30
4.694	16	Delaware	2000	—	84	—	—	16	2956	30
4.694	16	New Jersey	2000	—	79	—	—	21	1859	30
4.694	20	Delaware	2000	—	84	—	—	16	3864	30
4.848	16	Virginia	2000	—	68	—	—	32	2106	30
4.848	16	Virginia	2000	—	85	—	—	15	2676	30
4.848	16	Virginia	2000	—	75	—	—	25	3244	30
4.848	16	Virginia	2000	—	71	—	—	29	1663	30
4.993	16	Pennsylvania	2000	—	75	—	—	25	1991	30
5.094	16	New Jersey	2000	—	86	—	—	14	1260	30
5.5	16	Pennsylvania	2000	—	82	—	—	18	1570	30
5.543	16	Pennsylvania	2000	—	84	—	—	16	1933	30
5.565	16	Pennsylvania	2000	—	77	—	—	23	2262	30
5.565	16	Pennsylvania	2000	—	68	—	—	32	2854	30
5.565	16	New Jersey	2000	—	58	—	—	42	1253	30
5.565	16	New Jersey	2000	—	79	—	—	21	1928	30
5.565	16	New Jersey	2000	---	84	---	---	16	1953	30

Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual* , 11th Edition

Land Use Code	945									
Land Use	Convenience Store/Gas Station									
Setting	General Urban/Suburban									
Time Period	Weekday PM Peak Period									
# Data Sites	12 Sites with between 2 and 8 VFP					28 Sites with between 9 and 20 VFP				
Average Pass-By Rate	56% for Sites with between 2 and 8 VFP					75% for Sites with between 9 and 20 VFP				
	Pass-By Characteristics for Individual Sites									
			Survey		Pass-By	Non-Pass-By Trips			Adj Street Peak	
GFA (000)	VFP	State or Province	Year	# Interviews	Trip (%)	Primary (%)	Diverted (%)	Total (%)	Hour Volume	Source
2.1	8	Maryland	1992	31	52	13	35	48	1785	25
2.1	6	Maryland	1992	30	53	20	27	47	1060	25
2.2	< 8	Indiana	1993	115	48	16	36	52	820	2
2.3	< 8	Kentucky	1993	67	57	16	27	43	1954	2
2.3	6	Maryland	1992	55	40	11	49	60	2760	25
2.4	< 8	Kentucky	1993	—	58	13	29	42	2655	2
2.6	< 8	Kentucky	1993	68	67	15	18	33	950	2
2.8	< 8	Kentucky	1993	—	62	11	27	38	2875	2
3	< 8	Indiana	1993	80	65	15	20	35	1165	2
3.6	< 8	Kentucky	1993	60	56	17	27	44	2505	2
3.7	< 8	Kentucky	1993	70	61	16	23	39	2175	2
4.2	< 8	Kentucky	1993	61	58	26	16	42	2300	2
4.694	12	Maryland	2000	—	78	—	—	22	3549	30
4.694	12	Maryland	2000	—	67	—	—	33	2272	30
4.694	12	Maryland	2000	—	66	—	—	34	3514	30
4.848	12	Virginia	2000	—	71	—	—	29	2350	30
5.06	12	Pennsylvania	2000	—	91	—	—	9	4181	30
5.242	12	Virginia	2000	—	70	—	—	30	2445	30
5.242	12	Virginia	2000	—	56	—	—	44	950	30
5.488	12	Delaware	2000	—	73	—	—	27	—	30
5.5	12	Pennsylvania	2000	—	84	—	—	16	4025	30
4.694	16	Maryland	2000	—	89	—	—	11	2755	30
4.694	16	Delaware	2000	—	73	—	—	27	1858	30
4.694	16	Delaware	2000	—	59	—	—	41	1344	30
4.694	16	Delaware	2000	—	72	—	—	28	3434	30
4.694	16	New Jersey	2000	—	81	—	—	19	1734	30
4.694	20	Delaware	2000	—	76	—	—	24	1616	30
4.848	16	Virginia	2000	—	67	—	—	33	2.954	30
4.848	16	Virginia	2000	—	78	—	—	22	3086	30
4.848	16	Virginia	2000	—	83	—	—	17	4143	30
4.848	16	Virginia	2000	—	73	—	—	27	2534	30
4.993	16	Pennsylvania	2000	—	72	—	—	28	2917	30
5.094	16	New Jersey	2000	—	86	—	—	14	1730	30
5.5	16	Pennsylvania	2000	—	90	—	—	10	2616	30
5.543	16	Pennsylvania	2000	—	87	—	—	13	2363	30
5.565	16	Pennsylvania	2000	—	81	—	—	19	2770	30
5.565	16	Pennsylvania	2000	—	76	—	—	24	3362	30
5.565	16	New Jersey	2000	—	61	—	—	39	1713	30
5.565	16	New Jersey	2000	—	86	—	—	14	1721	30
5.565	16	New Jersey	2000	---	81	---	---	19	2227	30

HCS7 All-Way Stop Control Report

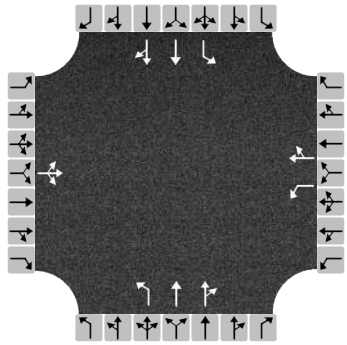
General Information

Analyst	MP
Agency/Co.	Lee Engineering
Date Performed	3/31/2022
Analysis Year	2022
Analysis Time Period (hrs)	1.00
Time Analyzed	7:00-8:00 AM
Project Description	Existing AM

Site Information

Intersection	98th and 86th
Jurisdiction	Albuquerque
East/West Street	86th St / De Anza
North/South Street	98th St
Peak Hour Factor	0.88

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	198	46	15	30	21	41	3	497	35	32	339	72
% Thrus in Shared Lane									50			50
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR			L	TR		L	T	TR	L	T	TR
Flow Rate, v (veh/h)	294			34	70		3	282	322	36	193	274
Percent Heavy Vehicles	2			3	0		0	2	2	3	2	2

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20	3.20		3.20	3.20	3.20	3.20	3.20	3.20
Initial Degree of Utilization, x	0.262			0.030	0.063		0.003	0.251	0.286	0.032	0.171	0.244
Final Departure Headway, hd (s)	9.07			10.36	9.31		8.72	8.23	8.14	9.00	8.47	8.25
Final Degree of Utilization, x	0.742			0.098	0.182		0.008	0.646	0.729	0.091	0.453	0.629
Move-Up Time, m (s)	2.3			2.3	2.3		2.3	2.3	2.3	2.3	2.3	2.3
Service Time, ts (s)	6.77			8.06	7.01		6.42	5.93	5.84	6.70	6.17	5.95

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	294			34	70		3	282	322	36	193	274
Capacity	397			348	387		413	437	442	400	425	436
95% Queue Length, Q_{95} (veh)	7.5			0.3	0.7		0.0	5.1	7.2	0.3	2.4	4.8
Control Delay (s/veh)	36.5			14.2	14.1		11.5	25.6	31.8	12.6	18.1	24.7
Level of Service, LOS	E			B	B		B	D	D	B	C	C
Approach Delay (s/veh)	36.5			14.1			28.8			21.3		
Approach LOS	E			B			D			C		
Intersection Delay, s/veh | LOS	26.8						D					

HCS7 All-Way Stop Control Report

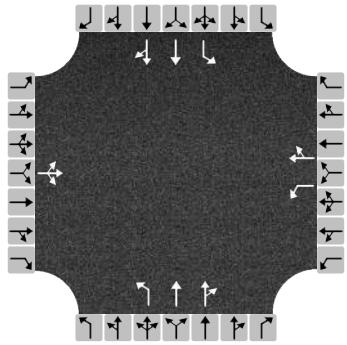
General Information

Analyst	Micahel Policastro
Agency/Co.	Lee Engineering
Date Performed	3/31/2022
Analysis Year	2022
Analysis Time Period (hrs)	1.00
Time Analyzed	5:00-6:00 PM
Project Description	Existing PM

Site Information

Intersection	98th and 86th
Jurisdiction	Albuquerque
East/West Street	86th St
North/South Street	98th St
Peak Hour Factor	0.95

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	134	18	11	28	21	19	11	421	27	38	563	238
% Thrus in Shared Lane									50			50
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR			L	TR		L	T	TR	L	T	TR
Flow Rate, v (veh/h)	172			29	42		12	222	250	40	296	547
Percent Heavy Vehicles	1			0	0		0	1	2	0	1	2

Departure Headway and Service Time

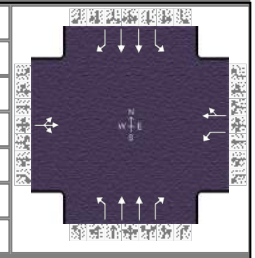
Initial Departure Headway, hd (s)	3.20			3.20	3.20		3.20	3.20	3.20	3.20	3.20	3.20
Initial Degree of Utilization, x	0.153			0.026	0.037		0.010	0.197	0.222	0.036	0.263	0.486
Final Departure Headway, hd (s)	9.00			9.67	8.84		8.25	7.76	7.70	7.68	7.19	6.88
Final Degree of Utilization, x	0.429			0.079	0.103		0.027	0.478	0.535	0.085	0.592	1.045
Move-Up Time, m (s)	2.3			2.3	2.3		2.3	2.3	2.3	2.3	2.3	2.3
Service Time, ts (s)	6.70			7.37	6.54		5.95	5.46	5.40	5.38	4.89	4.58

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	172			29	42		12	222	250	40	296	547
Capacity	400			372	407		436	464	467	469	501	523
95% Queue Length, Q_{95} (veh)	2.2			0.3	0.3		0.1	2.7	3.3	0.3	4.2	35.1
Control Delay (s/veh)	18.4			13.2	12.6		11.2	17.5	19.2	11.1	20.2	170.9
Level of Service, LOS	C			B	B		B	C	C	B	C	F
Approach Delay (s/veh)	18.4			12.8			18.2			113.1		
Approach LOS	C			B			C			F		
Intersection Delay, s/veh | LOS	70.0						F					

HCS7 Signalized Intersection Results Summary

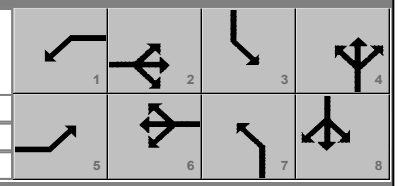
General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2023	Analysis Period	1> 7:00
Intersection	98th & 86th	File Name	03 98th & 86th Build-Out Background AM.xus		
Project Description	Build-Out Background AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	200	46	15	30	21	41	3	502	35	32	342	73

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	2.1	60.4	0.3	2.1	46.6	0.0
Yellow	3.0	4.0	3.0	0.0	4.0	0.0
Red	0.5	2.0	0.5	0.0	1.5	0.0



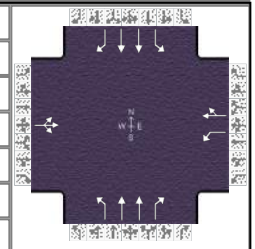
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	0.0	14.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	0.0	66.4	5.6	72.0	3.8	52.1	5.9	54.2
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	0.0	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s			3.1		2.1	15.9	3.6	10.7
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	6.8	0.0	7.0
Phase Call Probability			0.66		0.10	1.00	0.69	1.00
Max Out Probability			0.00		0.00	0.03	0.00	0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		261		30	62		3	502	35	32	342	73
Adjusted Saturation Flow Rate (*s*), veh/h/ln		18		1810	1618		1810	1766	1598	1697	1781	1585
Queue Service Time (g_s), s		3.0		1.1	2.6		0.1	13.9	1.9	1.6	8.7	3.9
Cycle Queue Clearance Time (g_c), s		60.4		1.1	2.6		0.1	13.9	1.9	1.6	8.7	3.9
Green Ratio (*g/C*)		0.46		0.50	0.51		0.36	0.35	0.35	0.38	0.37	0.37
Capacity (*c*), veh/h		57		84	821		364	1252	566	298	1320	588
Volume-to-Capacity Ratio (*X*)		4.555		0.357	0.075		0.008	0.401	0.062	0.107	0.259	0.124
Back of Queue (*Q*), ft/ln (95 th percentile)		4429.6		21.7	46.5		2.7	259.2	34.3	30.4	173.8	71.8
Back of Queue (*Q*), veh/ln (95 th percentile)		175.8		0.9	1.8		0.1	10.1	1.4	1.1	6.8	2.8
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00		0.09	0.00		0.01	0.00	0.31	0.25	0.00	0.65
Uniform Delay (d_1), s/veh		56.3		31.8	16.4		27.2	31.6	27.7	26.5	28.5	27.0
Incremental Delay (d_2), s/veh		6438.2		1.0	0.2		0.0	1.0	0.2	0.1	0.5	0.4
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		6494.5		32.7	16.6		27.2	32.6	27.9	26.5	29.0	27.4
Level of Service (LOS)		F		C	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	6494.5	F		21.8	C		32.2	C		28.5	C	
Intersection Delay, s/veh / LOS	1289.0						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.42	B	1.93	B	1.70	B
Bicycle LOS Score / LOS	0.92	A	0.64	A	0.93	A	0.86	A

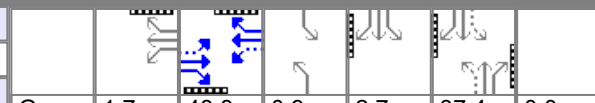
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2023	Analysis Period	1> 17:00
Intersection	98th & 86th	File Name	04 98th & 86th Build-Out Background PM.xus		
Project Description	Build-Out Background PM Peak				

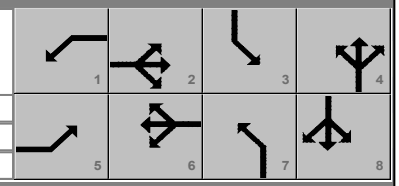


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	135	18	11	28	21	19	11	425	27	38	569	240

Signal Information			
Cycle, s	110.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.7	48.8	0.9	2.7	37.4	0.0
Yellow	3.0	4.0	3.0	0.0	4.0	0.0
Red	0.5	2.0	0.5	0.0	1.5	0.0



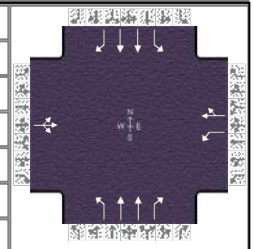
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	0.0	14.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	0.0	54.8	5.2	60.0	4.4	42.9	7.1	45.6
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	0.0	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s			2.9		2.4	11.8	3.6	15.3
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	9.0	0.0	8.9
Phase Call Probability			0.57		0.29	1.00	1.00	1.00
Max Out Probability			0.06		0.00	0.16	0.00	0.17

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		164		28	40		11	425	27	38	569	240
Adjusted Saturation Flow Rate (*s*), veh/h/ln		20		1810	1709		1810	1795	1610	1711	1795	1598
Queue Service Time (g_s), s		3.0		0.9	1.3		0.4	9.8	1.2	1.6	13.3	12.4
Cycle Queue Clearance Time (g_c), s		48.8		0.9	1.3		0.4	9.8	1.2	1.6	13.3	12.4
Green Ratio (*g/C*)		0.44		0.48	0.49		0.34	0.34	0.34	0.38	0.36	0.36
Capacity (*c*), veh/h		69		94	839		269	1205	541	348	1293	576
Volume-to-Capacity Ratio (*X*)		2.391		0.298	0.048		0.041	0.353	0.050	0.109	0.440	0.417
Back of Queue (*Q*), ft/ln (95 th percentile)		2195.3		17.2	24.6		8.5	193.4	22.4	29.4	244.1	218.2
Back of Queue (*Q*), veh/ln (95 th percentile)		86.4		0.7	1.0		0.3	7.7	0.9	1.1	9.7	8.7
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00		0.07	0.00		0.04	0.00	0.20	0.25	0.00	1.98
Uniform Delay (d_1), s/veh		48.8		27.0	14.6		24.6	27.5	24.7	22.3	26.7	26.5
Incremental Delay (d_2), s/veh		2547.4		0.7	0.1		0.0	0.8	0.2	0.1	1.1	2.2
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		2596.1		27.6	14.7		24.6	28.3	24.9	22.3	27.8	28.7
Level of Service (LOS)		F		C	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	2596.1	F		20.0	C		28.0	C		27.8	C	
Intersection Delay, s/veh / LOS	300.7						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.42	B	2.42	B	1.92	B	1.70	B
Bicycle LOS Score / LOS	0.76	A	0.60	A	0.87	A	1.19	A

HCS7 Signalized Intersection Results Summary

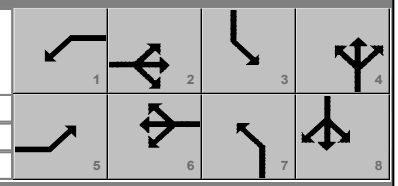
General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2023	Analysis Period	1> 7:00
Intersection	98th & 86th	File Name	05 98th & 86th Build-Out Total AM.xus		
Project Description	Build-Out Total AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	200	46	19	39	21	41	7	529	44	32	369	73

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	2.6	59.9	0.7	1.8	46.6	0.0
Yellow	3.0	4.0	3.0	0.0	4.0	0.0
Red	0.5	2.0	0.5	0.0	1.5	0.0



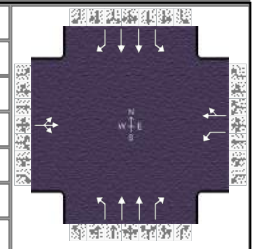
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	0.0	14.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	0.0	65.9	6.1	72.0	4.2	52.1	5.9	53.8
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	0.0	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s			3.4		2.3	16.8	3.6	11.5
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	7.2	0.0	7.6
Phase Call Probability			0.76		0.22	1.00	0.69	1.00
Max Out Probability			0.00		0.01	0.04	0.00	0.02

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		265		39	62		7	529	44	32	369	73
Adjusted Saturation Flow Rate (*s*), veh/h/ln		18		1810	1618		1810	1766	1598	1697	1781	1585
Queue Service Time (g_s), s		3.0		1.4	2.6		0.3	14.8	2.4	1.6	9.5	4.0
Cycle Queue Clearance Time (g_c), s		59.9		1.4	2.6		0.3	14.8	2.4	1.6	9.5	4.0
Green Ratio (*g/C*)		0.46		0.50	0.51		0.36	0.35	0.35	0.38	0.37	0.37
Capacity (*c*), veh/h		57		92	821		352	1251	566	287	1310	583
Volume-to-Capacity Ratio (*X*)		4.651		0.425	0.075		0.020	0.423	0.078	0.111	0.282	0.125
Back of Queue (*Q*), ft/ln (95 th percentile)		4512.3		28.3	46.5		6.4	272.5	43.3	30.5	190.1	72.2
Back of Queue (*Q*), veh/ln (95 th percentile)		179.1		1.1	1.8		0.3	10.6	1.7	1.1	7.5	2.8
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00		0.00	0.20		0.03	0.00	0.39	0.25	0.00	0.66
Uniform Delay (d_1), s/veh		56.3		31.6	16.4		27.1	31.9	27.9	26.8	29.0	27.2
Incremental Delay (d_2), s/veh		6611.0		1.2	0.2		0.0	1.1	0.3	0.1	0.5	0.4
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		6667.4		32.8	16.6		27.2	32.9	28.1	26.8	29.5	27.7
Level of Service (LOS)		F		C	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	6667.4	F		22.8	C		32.5	C		29.0	C	
Intersection Delay, s/veh / LOS	1268.9						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.42	B	1.93	B	1.70	B
Bicycle LOS Score / LOS	0.92	A	0.65	A	0.97	A	0.88	A

HCS7 Signalized Intersection Results Summary

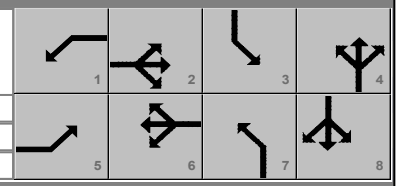
General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2023	Analysis Period	1> 17:00
Intersection	98th & 86th	File Name	06 98th & 86th Build-Out Total PM.xus		
Project Description	Build-Out Total PM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	135	18	15	36	21	19	15	449	35	38	593	240

Signal Information			
Cycle, s	110.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	2.1	48.4	1.1	2.5	37.4	0.0
Yellow	3.0	4.0	3.0	0.0	4.0	0.0
Red	0.5	2.0	0.5	0.0	1.5	0.0



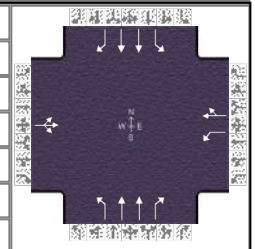
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	0.0	14.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	0.0	54.4	5.6	60.0	4.6	42.9	7.1	45.4
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	0.0	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s			3.2		2.6	12.4	3.6	16.0
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	9.3	0.0	9.2
Phase Call Probability			0.67		0.37	1.00	1.00	1.00
Max Out Probability			0.11		0.00	0.19	0.00	0.21

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		168		36	40		15	449	35	38	593	240
Adjusted Saturation Flow Rate (*s*), veh/h/ln		22		1810	1709		1810	1795	1610	1711	1795	1598
Queue Service Time (g_s), s		3.0		1.2	1.3		0.6	10.4	1.6	1.6	14.0	12.5
Cycle Queue Clearance Time (g_c), s		48.4		1.2	1.3		0.6	10.4	1.6	1.6	14.0	12.5
Green Ratio (*g/C*)		0.44		0.48	0.49		0.35	0.34	0.34	0.38	0.36	0.36
Capacity (*c*), veh/h		69		100	839		262	1205	541	338	1285	572
Volume-to-Capacity Ratio (*X*)		2.436		0.359	0.048		0.057	0.373	0.065	0.112	0.461	0.420
Back of Queue (*Q*), ft/ln (95 th percentile)		2271.2		22.2	24.6		11.6	203.1	29.2	29.6	255.1	219.1
Back of Queue (*Q*), veh/ln (95 th percentile)		89.4		0.9	1.0		0.5	8.1	1.2	1.1	10.1	8.7
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00		0.09	0.00		0.06	0.00	0.27	0.25	0.00	1.99
Uniform Delay (d_1), s/veh		48.2		26.9	14.6		24.6	27.7	24.8	22.5	27.1	26.7
Incremental Delay (d_2), s/veh		2628.4		0.8	0.1		0.0	0.9	0.2	0.1	1.2	2.3
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		2676.6		27.7	14.7		24.6	28.6	25.0	22.5	28.3	28.9
Level of Service (LOS)		F		C	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	2676.6	F		20.8	C		28.3	C		28.3	C	
Intersection Delay, s/veh / LOS	303.6						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.42	B	2.42	B	1.92	B	1.70	B
Bicycle LOS Score / LOS	0.76	A	0.61	A	0.90	A	1.21	A

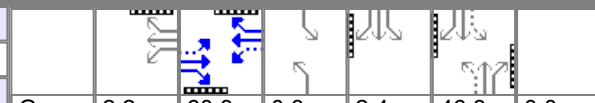
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2033	Analysis Period	1> 7:00
Intersection	98th & 86th	File Name	09 98th & 86th Horizon Background AM.xus		
Project Description	Horizon Background AM Peak				

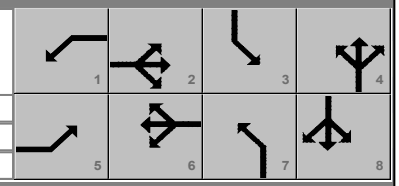


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	218	51	17	33	23	45	3	547	39	35	373	79

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	2.2	60.3	0.3	2.4	46.3	0.0
Yellow	3.0	4.0	3.0	0.0	4.0	0.0
Red	0.5	2.0	0.5	0.0	1.5	0.0



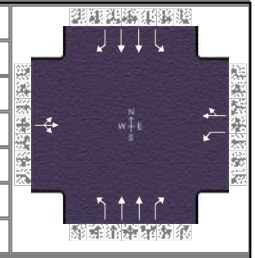
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	0.0	14.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	0.0	66.3	5.7	72.0	3.8	51.8	6.2	54.2
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	0.0	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s			3.2		2.1	17.4	3.7	11.6
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	7.4	0.0	7.8
Phase Call Probability			0.70		0.10	1.00	0.72	1.00
Max Out Probability			0.00		0.00	0.05	0.00	0.02

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		286		33	68		3	547	39	35	373	79
Adjusted Saturation Flow Rate (*s*), veh/h/ln		6		1810	1618		1810	1766	1598	1697	1781	1585
Queue Service Time (g_s), s		3.0		1.2	2.8		0.1	15.4	2.1	1.7	9.6	4.3
Cycle Queue Clearance Time (g_c), s		60.3		1.2	2.8		0.1	15.4	2.1	1.7	9.6	4.3
Green Ratio (*g/C*)		0.46		0.50	0.51		0.35	0.35	0.35	0.38	0.37	0.37
Capacity (*c*), veh/h		52		87	821		348	1246	563	282	1320	588
Volume-to-Capacity Ratio (*X*)		5.534		0.381	0.083		0.009	0.439	0.069	0.124	0.283	0.134
Back of Queue (*Q*), ft/ln (95 th percentile)		5038.5		23.9	51.2		2.7	281.9	38.4	33.2	191.4	78.1
Back of Queue (*Q*), veh/ln (95 th percentile)		199.9		1.0	2.0		0.1	11.0	1.5	1.2	7.5	3.1
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00		0.00	0.22		0.01	0.00	0.35	0.28	0.00	0.71
Uniform Delay (d_1), s/veh		61.7		31.7	16.4		27.4	32.2	27.9	26.6	28.8	27.1
Incremental Delay (d_2), s/veh		8203.1		1.0	0.2		0.0	1.1	0.2	0.1	0.5	0.5
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		8264.7		32.7	16.6		27.4	33.4	28.2	26.7	29.3	27.6
Level of Service (LOS)		F		C	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	8264.7	F		21.9	C		33.0	C		28.8	C	
Intersection Delay, s/veh / LOS	1640.1						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.42	B	1.93	B	1.70	B
Bicycle LOS Score / LOS	0.96	A	0.65	A	0.97	A	0.89	A

HCS7 Signalized Intersection Results Summary

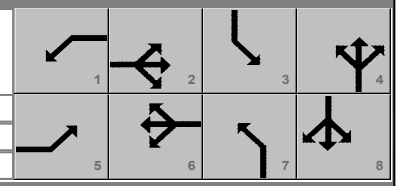
General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2033	Analysis Period	1> 17:00
Intersection	98th & 86th	File Name	10 98th & 86th Horizon Background PM.xus		
Project Description	Horizon Background PM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	147	20	12	31	23	21	12	463	30	42	619	262

Signal Information			
Cycle, s	110.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	1.8	48.7	0.9	2.8	37.3	0.0						
Yellow	3.0	4.0	3.0	0.0	4.0	0.0						
Red	0.5	2.0	0.5	0.0	1.5	0.0						



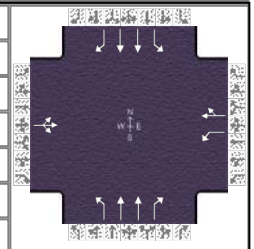
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	0.0	14.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	0.0	54.7	5.3	60.0	4.4	42.8	7.2	45.6
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	0.0	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s			3.0		2.5	12.8	3.7	16.7
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	9.7	0.0	9.6
Phase Call Probability			0.61		0.31	1.00	1.00	1.00
Max Out Probability			0.07		0.00	0.22	0.00	0.24

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		179		31	44		12	463	30	42	619	262
Adjusted Saturation Flow Rate (*s*), veh/h/ln		20		1810	1708		1810	1795	1610	1711	1795	1598
Queue Service Time (g_s), s		3.0		1.0	1.5		0.5	10.8	1.4	1.7	14.7	13.8
Cycle Queue Clearance Time (g_c), s		48.7		1.0	1.5		0.5	10.8	1.4	1.7	14.7	13.8
Green Ratio (*g/C*)		0.44		0.48	0.49		0.34	0.33	0.33	0.38	0.36	0.36
Capacity (*c*), veh/h		69		96	839		251	1200	538	334	1291	575
Volume-to-Capacity Ratio (*X*)		2.608		0.324	0.052		0.048	0.386	0.056	0.126	0.479	0.456
Back of Queue (*Q*), ft/ln (95 th percentile)		2512.9		19.1	27.1		9.3	209.3	25	32.6	265.3	238
Back of Queue (*Q*), veh/ln (95 th percentile)		98.9		0.8	1.1		0.4	8.3	1.0	1.2	10.5	9.4
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00		0.08	0.00		0.05	0.00	0.23	0.27	0.00	2.16
Uniform Delay (d_1), s/veh		48.7		27.0	14.6		24.8	28.0	24.8	22.4	27.2	27.0
Incremental Delay (d_2), s/veh		2936.2		0.7	0.1		0.0	0.9	0.2	0.1	1.3	2.6
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		2984.9		27.7	14.7		24.8	28.9	25.0	22.4	28.5	29.6
Level of Service (LOS)		F		C	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	2984.9	F		20.1	C		28.6	C		28.5	C	
Intersection Delay, s/veh / LOS	342.8						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.42	B	2.42	B	1.93	B	1.70	B
Bicycle LOS Score / LOS	0.78	A	0.61	A	0.90	A	1.25	A

HCS7 Signalized Intersection Results Summary

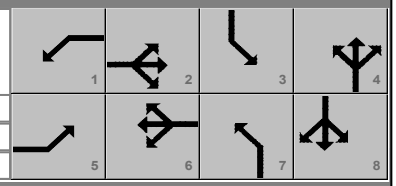
General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2033	Analysis Period	1> 7:00
Intersection	98th & 86th	File Name	11 98th & 86th Horizon Total AM.xus		
Project Description	Horizon Total AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	218	51	21	42	23	45	7	574	48	35	400	79

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	2.8	59.7	0.7	2.0	46.3	0.0
Yellow	3.0	4.0	3.0	0.0	4.0	0.0
Red	0.5	2.0	0.5	0.0	1.5	0.0



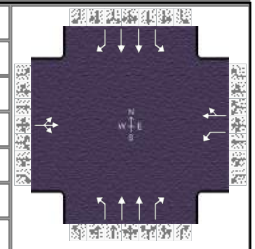
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	0.0	14.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	0.0	65.7	6.3	72.0	4.2	51.8	6.2	53.8
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	0.0	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s			3.6		2.3	18.3	3.7	12.4
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	7.9	0.0	8.4
Phase Call Probability			0.78		0.22	1.00	0.72	1.00
Max Out Probability			0.00		0.01	0.07	0.00	0.03

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		290		42	68		7	574	48	35	400	79
Adjusted Saturation Flow Rate (*s*), veh/h/ln		6		1810	1618		1810	1766	1598	1697	1781	1585
Queue Service Time (g_s), s		3.0		1.6	2.8		0.3	16.3	2.6	1.7	10.4	4.3
Cycle Queue Clearance Time (g_c), s		59.7		1.6	2.8		0.3	16.3	2.6	1.7	10.4	4.3
Green Ratio (*g/C*)		0.46		0.50	0.51		0.36	0.35	0.35	0.38	0.37	0.37
Capacity (*c*), veh/h		51		94	821		337	1245	563	271	1310	583
Volume-to-Capacity Ratio (*X*)		5.643		0.446	0.083		0.021	0.461	0.085	0.129	0.305	0.135
Back of Queue (*Q*), ft/ln (95 th percentile)		5119.7		30.5	51.2		6.4	295.5	47.5	33.4	204.4	78.4
Back of Queue (*Q*), veh/ln (95 th percentile)		203.2		1.2	2.0		0.3	11.5	1.9	1.3	8.0	3.1
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00		0.00	0.22		0.03	0.00	0.43	0.28	0.00	0.71
Uniform Delay (d_1), s/veh		61.7		31.5	16.4		27.3	32.5	28.1	26.9	29.3	27.3
Incremental Delay (d_2), s/veh		8400.1		1.2	0.2		0.0	1.2	0.3	0.1	0.6	0.5
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		8461.8		32.8	16.6		27.4	33.8	28.4	27.0	29.9	27.8
Level of Service (LOS)		F		C	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	8461.8	F		22.8	C		33.3	C		29.4	C	
Intersection Delay, s/veh / LOS	1615.3						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.42	B	1.93	B	1.70	B
Bicycle LOS Score / LOS	0.97	A	0.67	A	1.01	A	0.91	A

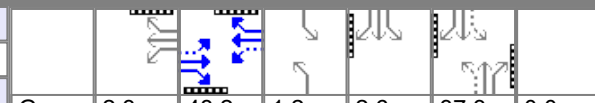
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2033	Analysis Period	1> 17:00
Intersection	98th & 86th	File Name	12 98th & 86th Horizon Total PM.xus		
Project Description	Horizon Total PM Peak				

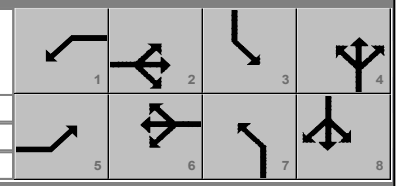


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	147	20	16	39	23	21	16	487	38	42	643	262

Signal Information			
Cycle, s	110.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	2.3	48.2	1.2	2.6	37.3	0.0
Yellow	3.0	4.0	3.0	0.0	4.0	0.0
Red	0.5	2.0	0.5	0.0	1.5	0.0



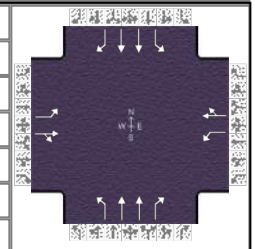
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	0.0	14.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	0.0	54.2	5.8	60.0	4.7	42.8	7.2	45.3
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	0.0	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s			3.3		2.6	13.5	3.7	17.4
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	10.1	0.0	9.8
Phase Call Probability			0.70		0.39	1.00	1.00	1.00
Max Out Probability			0.14		0.00	0.26	0.00	0.29

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h		183		39	44		16	487	38	42	643	262
Adjusted Saturation Flow Rate (*s*), veh/h/ln		22		1810	1708		1810	1795	1610	1711	1795	1598
Queue Service Time (g_s), s		3.0		1.3	1.5		0.6	11.5	1.8	1.7	15.4	13.9
Cycle Queue Clearance Time (g_c), s		48.2		1.3	1.5		0.6	11.5	1.8	1.7	15.4	13.9
Green Ratio (*g/C*)		0.44		0.48	0.49		0.34	0.33	0.33	0.38	0.36	0.36
Capacity (*c*), veh/h		69		103	839		244	1200	538	324	1283	571
Volume-to-Capacity Ratio (*X*)		2.653		0.379	0.052		0.066	0.406	0.071	0.130	0.501	0.459
Back of Queue (*Q*), ft/ln (95 th percentile)		2588.1		24.1	27.1		12.4	219.3	31.8	32.7	276.4	238.7
Back of Queue (*Q*), veh/ln (95 th percentile)		101.9		1.0	1.1		0.5	8.7	1.3	1.2	11.0	9.5
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00		0.10	0.00		0.06	0.00	0.29	0.27	0.00	2.17
Uniform Delay (d_1), s/veh		48.2		26.8	14.6		24.9	28.2	25.0	22.6	27.7	27.2
Incremental Delay (d_2), s/veh		3017.2		0.9	0.1		0.0	1.0	0.3	0.1	1.4	2.7
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		3065.4		27.7	14.7		24.9	29.2	25.2	22.6	29.1	29.8
Level of Service (LOS)		F		C	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	3065.4	F		20.8	C		28.8	C		29.0	C	
Intersection Delay, s/veh / LOS	345.3						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.42	B	2.42	B	1.93	B	1.70	B
Bicycle LOS Score / LOS	0.79	A	0.62	A	0.93	A	1.27	A

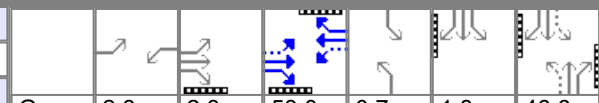
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2023	Analysis Period	1> 7:00
Intersection	98th & 86th	File Name	07 98th & 86th Build-Out Optimized AM.xus		
Project Description	Build-Out Total AM Peak				

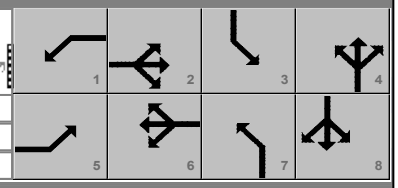


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	200	46	19	39	21	41	7	529	44	32	369	73

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	2.8	2.8		53.0	0.7	1.8	46.6					
Yellow	3.0	4.0		4.0	3.0	0.0	4.0					
Red	0.5	0.0		2.0	0.5	0.0	1.5					



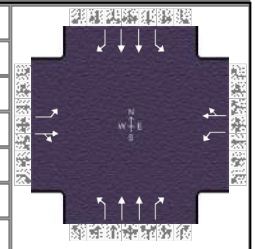
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	13.0	65.7	6.3	59.0	4.2	52.1	5.9	53.8
Change Period, ($Y+R_c$), s	4.0	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	10.4		3.6		2.3	16.8	3.6	11.5
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	7.2	0.0	7.6
Phase Call Probability	1.00		0.76		0.22	1.00	0.69	1.00
Max Out Probability	1.00		0.00		0.01	0.04	0.00	0.02

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	200	65		39	62		7	529	44	32	369	73
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1767	1791		1810	1618		1810	1766	1598	1697	1781	1585
Queue Service Time (g_s), s	8.4	2.6		1.6	3.1		0.3	14.8	2.4	1.6	9.5	4.0
Cycle Queue Clearance Time (g_c), s	8.4	2.6		1.6	3.1		0.3	14.8	2.4	1.6	9.5	4.0
Green Ratio (*g/C*)	0.49	0.46		0.43	0.41		0.36	0.35	0.35	0.38	0.37	0.37
Capacity (*c*), veh/h	688	823		647	659		352	1251	566	287	1310	583
Volume-to-Capacity Ratio (*X*)	0.291	0.079		0.060	0.094		0.020	0.423	0.078	0.111	0.282	0.125
Back of Queue (*Q*), ft/ln (95 th percentile)	158.5	52.1		31.5	58.1		6.4	272.5	43.3	30.5	190.1	72.2
Back of Queue (*Q*), veh/ln (95 th percentile)	6.2	2.1		1.3	2.2		0.3	10.6	1.7	1.1	7.5	2.8
Queue Storage Ratio (*RQ*) (95 th percentile)	0.40	0.00		0.00	0.25		0.03	0.00	0.39	0.25	0.00	0.66
Uniform Delay (d_1), s/veh	19.0	19.7		21.7	23.7		27.1	31.9	27.9	26.8	29.0	27.2
Incremental Delay (d_2), s/veh	0.1	0.2		0.0	0.3		0.0	1.1	0.3	0.1	0.5	0.4
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	19.1	19.9		21.7	24.0		27.2	32.9	28.1	26.8	29.5	27.7
Level of Service (LOS)	B	B		C	C		C	C	C	C	C	C
Approach Delay, s/veh / LOS	19.3	B		23.1	C		32.5	C		29.0	C	
Intersection Delay, s/veh / LOS	28.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.44	B	1.93	B	1.93	B
Bicycle LOS Score / LOS	0.92	A	0.65	A	0.97	A	0.88	A

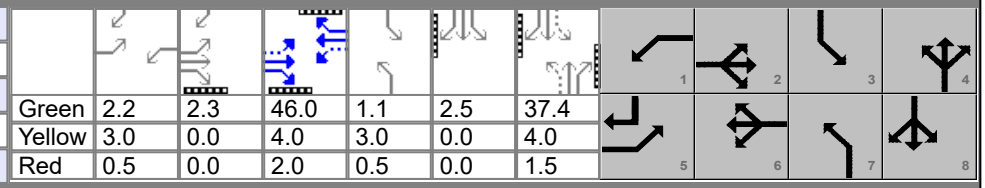
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2023	Analysis Period	1> 17:00
Intersection	98th & 86th	File Name	08 98th & 86th Build-Out Optimized PM.xus		
Project Description	Build-Out Total PM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	135	18	15	36	21	19	15	449	35	38	593	240

Signal Information			
Cycle, s	110.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	2.2	2.3	46.0	1.1	2.5	37.4						
Yellow	3.0	0.0	4.0	3.0	0.0	4.0						
Red	0.5	0.0	2.0	0.5	0.0	1.5						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	8.0	54.3	5.7	52.0	4.6	42.9	7.1	45.4
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	6.5		3.3		2.6	12.4	3.6	16.0
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	8.4	0.0	8.2
Phase Call Probability	0.98		0.67		0.37	1.00	1.00	1.00
Max Out Probability	1.00		0.13		0.00	0.14	0.00	0.15

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	135	33		36	40		15	449	35	38	593	120
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1729		1810	1709		1810	1795	1610	1711	1795	1598
Queue Service Time (g_s), s	4.5	1.2		1.3	1.5		0.6	10.4	1.6	1.6	14.0	5.4
Cycle Queue Clearance Time (g_c), s	4.5	1.2		1.3	1.5		0.6	10.4	1.6	1.6	14.0	5.4
Green Ratio (*g/C*)	0.47	0.44		0.44	0.42		0.35	0.34	0.34	0.38	0.36	0.40
Capacity (*c*), veh/h	691	760		675	714		262	1205	541	338	1285	638
Volume-to-Capacity Ratio (*X*)	0.195	0.043		0.053	0.056		0.057	0.373	0.065	0.112	0.461	0.188
Back of Queue (*Q*), ft/ln (95 th percentile)	88.1	22.6		23.3	29.1		11.6	203.1	29.2	29.6	255.1	94.8
Back of Queue (*Q*), veh/ln (95 th percentile)	3.5	0.9		0.9	1.1		0.5	8.1	1.2	1.1	10.1	3.8
Queue Storage Ratio (*RQ*) (95 th percentile)	0.22	0.00		0.10	0.00		0.06	0.00	0.27	0.25	0.00	0.86
Uniform Delay (d_1), s/veh	17.0	17.6		17.7	19.1		24.6	27.7	24.8	22.5	27.1	21.5
Incremental Delay (d_2), s/veh	0.1	0.1		0.0	0.1		0.0	0.9	0.2	0.1	1.2	0.7
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	17.1	17.7		17.8	19.2		24.6	28.6	25.0	22.5	28.3	22.1
Level of Service (LOS)	B	B		B	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	17.2	B		18.5	B		28.3	C		27.1	C	
Intersection Delay, s/veh / LOS	25.9						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.42	B	2.60	C	1.92	B	1.92	B
Bicycle LOS Score / LOS	0.76	A	0.61	A	0.90	A	1.11	A

HCS7 Two-Way Stop-Control Report

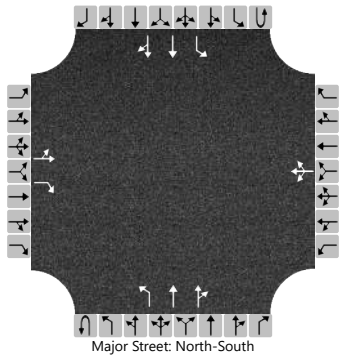
General Information

Analyst	MP
Agency/Co.	Lee Engineering, LLC
Date Performed	10/12/2022
Analysis Year	2022
Time Analyzed	1 Hour
Intersection Orientation	North-South
Project Description	Existing AM PH

Site Information

Intersection	98th & Access A/Walgreens
Jurisdiction	CABQ
East/West Street	Walgreens DW
North/South Street	98th St
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	0	0	1	2	0	0	1	2	0
Configuration		LT		R			LTR			L	T	TR		L	T	TR
Volume (veh/h)		2	0	3		0	0	0	1	0	432	0	0	0	313	5
Percent Heavy Vehicles (%)		0	3	3		0	3	3	3	0			3	0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No															
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9	6.4	4.1				4.1		
Critical Headway (sec)		7.50	6.56	6.96		7.50	6.56	6.96	6.46	4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3	2.5	2.2				2.2		
Follow-Up Headway (sec)		3.50	4.03	3.33		3.50	4.03	3.33	2.53	2.20				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		2		3			0			1				0		
Capacity, c (veh/h)		499		838						859				1103		
v/c Ratio		0.00		0.00						0.00				0.00		
95% Queue Length, Q_{95} (veh)		0.0		0.0						0.0				0.0		
Control Delay (s/veh)		12.2		9.3						9.2				8.3		
Level of Service (LOS)		B		A						A				A		
Approach Delay (s/veh)	10.5								0.0				0.0			
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

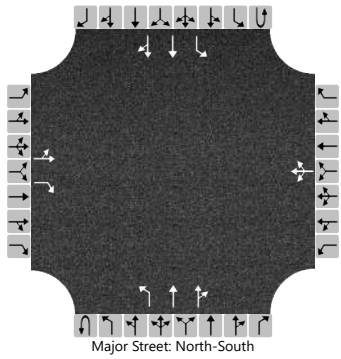
General Information

Analyst	Michael Policastro
Agency/Co.	Lee Engineering, LLC
Date Performed	10/12/2022
Analysis Year	2022
Time Analyzed	1 Hour
Intersection Orientation	North-South
Project Description	Existing PM Peak

Site Information

Intersection	98th & Access A/Walgreens
Jurisdiction	CABQ
East/West Street	Walgreens
North/South Street	98th St
Peak Hour Factor	0.94
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	0	0	1	2	0	0	1	2	0
Configuration		LT		R			LTR			L	T	TR		L	T	TR
Volume (veh/h)		28	0	17		0	0	0	1	9	414	0	1	0	534	53
Percent Heavy Vehicles (%)		0	3	3		0	3	3	3	0			3	0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No															
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9	6.4	4.1			6.4	4.1		
Critical Headway (sec)		7.50	6.56	6.96		7.50	6.56	6.96	6.46	4.10			6.46	4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3	2.5	2.2			2.5	2.2		
Follow-Up Headway (sec)		3.50	4.03	3.33		3.50	4.03	3.33	2.53	2.20			2.53	2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		30		18			0			11				1		
Capacity, c (veh/h)		365		679						901				751		
v/c Ratio		0.08		0.03						0.01				0.00		
95% Queue Length, Q_{95} (veh)		0.3		0.1						0.0				0.0		
Control Delay (s/veh)		15.7		10.4						9.0				9.8		
Level of Service (LOS)		C		B						A				A		
Approach Delay (s/veh)	13.7								0.2				0.0			
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

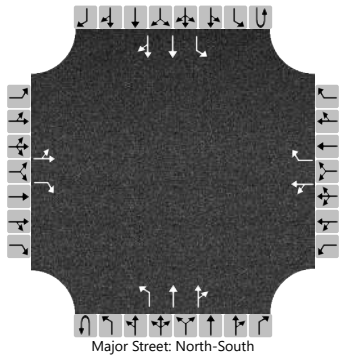
General Information

Analyst	MP
Agency/Co.	Lee Engineering, LLC
Date Performed	10/12/2022
Analysis Year	2023
Time Analyzed	1 Hour
Intersection Orientation	North-South
Project Description	Build-Out Year - No Build AM Peak

Site Information

Intersection	98th & Walgreens
Jurisdiction	CABQ
East/West Street	Walgreens
North/South Street	98th St
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	1	0	1	2	0	0	1	2	0
Configuration		LT		R		LT		R		L	T	TR		L	T	TR
Volume (veh/h)		2	0	3		0	0	0	1	0	436	0	0	0	316	5
Percent Heavy Vehicles (%)		0	3	3		0	3	3	3	0			3	0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No											
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9	6.4	4.1				4.1		
Critical Headway (sec)		7.50	6.56	6.96		7.50	6.56	6.96	6.46	4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3	2.5	2.2				2.2		
Follow-Up Headway (sec)		3.50	4.03	3.33		3.50	4.03	3.33	2.53	2.20				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		2		3		0		0		1				0		
Capacity, c (veh/h)		496		836				761		855				1099		
v/c Ratio		0.00		0.00				0.00		0.00				0.00		
95% Queue Length, Q_{95} (veh)		0.0		0.0				0.0		0.0				0.0		
Control Delay (s/veh)		12.3		9.3				9.7		9.2				8.3		
Level of Service (LOS)		B		A				A		A				A		
Approach Delay (s/veh)	10.5								0.0				0.0			
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

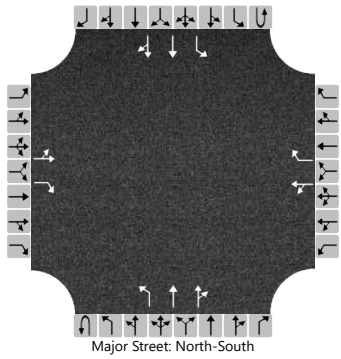
General Information

Analyst	MP
Agency/Co.	Lee Engineering, LLC
Date Performed	10/12/2022
Analysis Year	2023
Time Analyzed	1 Hour
Intersection Orientation	North-South
Project Description	Build-Out Year - No Build PM PH

Site Information

Intersection	98th & Walgreens
Jurisdiction	CABQ
East/West Street	Walgreens
North/South Street	98th St
Peak Hour Factor	0.94
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	1	0	1	2	0	0	1	2	0
Configuration		LT		R		LT		R		L	T	TR		L	T	TR
Volume (veh/h)		28	0	17		0	0	0	1	9	418	0	1	0	539	54
Percent Heavy Vehicles (%)		0	3	3		0	3	3	3	0			3	0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No											
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9	6.4	4.1			6.4	4.1		
Critical Headway (sec)		7.50	6.56	6.96		7.50	6.56	6.96	6.46	4.10			6.46	4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3	2.5	2.2			2.5	2.2		
Follow-Up Headway (sec)		3.50	4.03	3.33		3.50	4.03	3.33	2.53	2.20			2.53	2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		30		18		0		0		11				1		
Capacity, c (veh/h)		362		676				778		895				746		
v/c Ratio		0.08		0.03				0.00		0.01				0.00		
95% Queue Length, Q_{95} (veh)		0.3		0.1				0.0		0.0				0.0		
Control Delay (s/veh)		15.8		10.5				9.6		9.1				9.8		
Level of Service (LOS)		C		B				A		A				A		
Approach Delay (s/veh)	13.8								0.2				0.0			
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

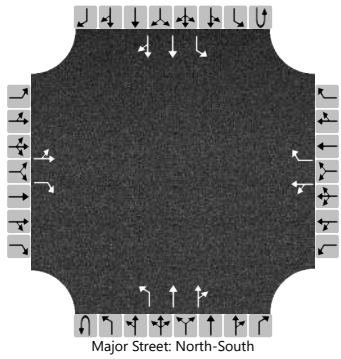
General Information

Analyst	MP
Agency/Co.	Lee Engineering, LLC
Date Performed	10/12/2022
Analysis Year	2023
Time Analyzed	1 Hour
Intersection Orientation	North-South
Project Description	Build-Out Total AM PH

Site Information

Intersection	98th & Walgreens
Jurisdiction	CABQ
East/West Street	Access A & Walgreens DW
North/South Street	98th St
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	1	0	1	2	0	0	1	2	0
Configuration		LT		R		LT		R		L	T	TR		L	T	TR
Volume (veh/h)		2	0	3		114	0	141	1	0	335	172	0	170	186	5
Percent Heavy Vehicles (%)		0	3	3		0	3	3	3	0			3	0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No											
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9	6.4	4.1				4.1		
Critical Headway (sec)		7.50	6.56	6.96		7.50	6.56	6.96	6.46	4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3	2.5	2.2				2.2		
Follow-Up Headway (sec)		3.50	4.03	3.33		3.50	4.03	3.33	2.53	2.20				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		2		3		124		153		1				185		
Capacity, c (veh/h)		282		928		313		719		1050				1029		
v/c Ratio		0.01		0.00		0.40		0.21		0.00				0.18		
95% Queue Length, Q_{95} (veh)		0.0		0.0		1.9		0.8		0.0				0.7		
Control Delay (s/veh)		17.9		8.9		24.0		11.4		8.4				9.3		
Level of Service (LOS)		C		A		C		B		A				A		
Approach Delay (s/veh)	12.5				17.0				0.0				4.4			
Approach LOS	B				C											

HCS7 Two-Way Stop-Control Report

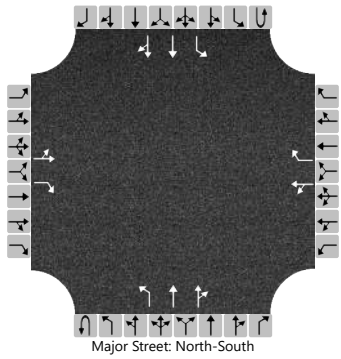
General Information

Analyst	MP
Agency/Co.	Lee Engineering, LLC
Date Performed	10/12/2022
Analysis Year	2023
Time Analyzed	1 Hour
Intersection Orientation	North-South
Project Description	Build-Out Year - Build Total PM Peak

Site Information

Intersection	98th & Walgreens
Jurisdiction	CABQ
East/West Street	Walgreens
North/South Street	98th St
Peak Hour Factor	0.94
Analysis Time Period (hrs)	1.00

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	1	0	1	2	0	0	1	2	0
Configuration		LT		R		LT		R		L	T	TR		L	T	TR
Volume (veh/h)		28	0	17		96	0	121	1	9	333	146	1	145	430	54
Percent Heavy Vehicles (%)		0	3	3		0	3	3	3	0			3	0		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized		No				No										
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9	6.4	4.1			6.4	4.1		
Critical Headway (sec)		7.50	6.56	6.96		7.50	6.56	6.96	6.46	4.10			6.46	4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3	2.5	2.2			2.5	2.2		
Follow-Up Headway (sec)		3.50	4.03	3.33		3.50	4.03	3.33	2.53	2.20			2.53	2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		30		18		102		129		11				155		
Capacity, c (veh/h)		230		737		290		741		1000				1059		
v/c Ratio		0.13		0.02		0.35		0.17		0.01				0.15		
95% Queue Length, Q_{95} (veh)		0.4		0.1		1.6		0.6		0.0				0.5		
Control Delay (s/veh)		22.9		10.0		24.2		10.9		8.6				9.0		
Level of Service (LOS)		C		B		C		B		A				A		
Approach Delay (s/veh)		18.1				16.8				0.2				2.1		
Approach LOS		C				C										

HCS7 Two-Way Stop-Control Report

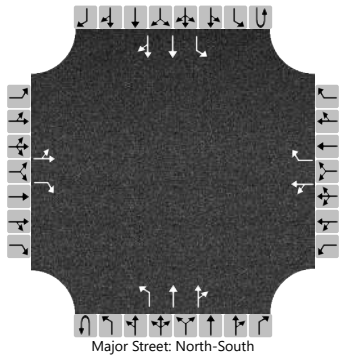
General Information

Analyst	MP
Agency/Co.	Lee Engineering, LLC
Date Performed	10/12/2022
Analysis Year	2033
Time Analyzed	1 Hour
Intersection Orientation	North-South
Project Description	Horizon Background AM Peak

Site Information

Intersection	98th & Walgreens
Jurisdiction	CABQ
East/West Street	Walgreens
North/South Street	98th St
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	1	0	1	2	0	0	1	2	0
Configuration		LT		R		LT		R		L	T	TR		L	T	TR
Volume (veh/h)		2	0	3		0	0	0	1	0	475	0	0	0	344	6
Percent Heavy Vehicles (%)		0	3	3		0	3	3	3	0			3	0		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized		No				No										
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9	6.4	4.1				4.1		
Critical Headway (sec)		7.50	6.56	6.96		7.50	6.56	6.96	6.46	4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3	2.5	2.2				2.2		
Follow-Up Headway (sec)		3.50	4.03	3.33		3.50	4.03	3.33	2.53	2.20				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		2		3		0		0		1				0		
Capacity, c (veh/h)		470		816				738		816				1060		
v/c Ratio		0.00		0.00				0.00		0.00				0.00		
95% Queue Length, Q_{95} (veh)		0.0		0.0				0.0		0.0				0.0		
Control Delay (s/veh)		12.7		9.4				9.9		9.4				8.4		
Level of Service (LOS)		B		A				A		A				A		
Approach Delay (s/veh)		10.7								0.0				0.0		
Approach LOS		B														

HCS7 Two-Way Stop-Control Report

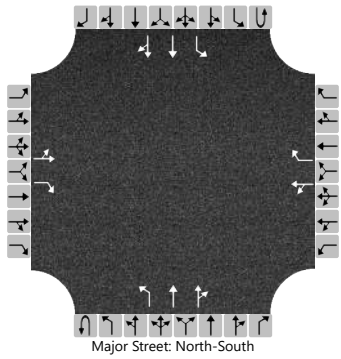
General Information

Analyst	MP
Agency/Co.	Lee Engineering, LLC
Date Performed	10/12/2022
Analysis Year	2033
Time Analyzed	1 Hour
Intersection Orientation	North-South
Project Description	Horizon Year - Background AM Peak

Site Information

Intersection	98th & Walgreens
Jurisdiction	CABQ
East/West Street	Walgreens
North/South Street	98th St
Peak Hour Factor	0.94
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	1	0	1	2	0	0	1	2	0
Configuration		LT		R		LT		R		L	T	TR		L	T	TR
Volume (veh/h)		31	0	19		0	0	0	1	10	455	0	1	0	587	58
Percent Heavy Vehicles (%)		0	3	3		0	3	3	3	0			3	0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No											
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9	6.4	4.1			6.4	4.1		
Critical Headway (sec)		7.50	6.56	6.96		7.50	6.56	6.96	6.46	4.10			6.46	4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3	2.5	2.2			2.5	2.2		
Follow-Up Headway (sec)		3.50	4.03	3.33		3.50	4.03	3.33	2.53	2.20			2.53	2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		33		20		0		0		12				1		
Capacity, c (veh/h)		334		648				756		854				704		
v/c Ratio		0.10		0.03				0.00		0.01				0.00		
95% Queue Length, Q_{95} (veh)		0.3		0.1				0.0		0.0				0.0		
Control Delay (s/veh)		16.9		10.7				9.8		9.3				10.1		
Level of Service (LOS)		C		B				A		A				B		
Approach Delay (s/veh)	14.6								0.2				0.0			
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

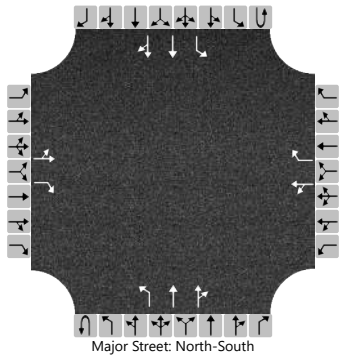
General Information

Analyst	MP
Agency/Co.	Lee Engineering, LLC
Date Performed	10/12/2022
Analysis Year	2033
Time Analyzed	1 Hour
Intersection Orientation	North-South
Project Description	Horizon Year - Build Total AM Peak

Site Information

Intersection	98th & Walgreens
Jurisdiction	CABQ
East/West Street	Access A & Walgreens
North/South Street	98th St
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	1	0	1	2	0	0	1	2	0
Configuration		LT		R		LT		R		L	T	TR		L	T	TR
Volume (veh/h)		2	0	3		114	0	141	1	0	374	172	0	170	214	6
Percent Heavy Vehicles (%)		0	3	3		0	3	3	3	0			3	0		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized		No				No										
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9	6.4	4.1				4.1		
Critical Headway (sec)		7.50	6.56	6.96		7.50	6.56	6.96	6.46	4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3	2.5	2.2				2.2		
Follow-Up Headway (sec)		3.50	4.03	3.33		3.50	4.03	3.33	2.53	2.20				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		2		3		124		153		1				185		
Capacity, c (veh/h)		264		906		295		697		1003				992		
v/c Ratio		0.01		0.00		0.42		0.22		0.00				0.19		
95% Queue Length, Q_{95} (veh)		0.0		0.0		2.1		0.8		0.0				0.7		
Control Delay (s/veh)		18.8		9.0		25.9		11.6		8.6				9.5		
Level of Service (LOS)		C		A		D		B		A				A		
Approach Delay (s/veh)		12.9				18.0				0.0				4.1		
Approach LOS		B				C										

HCS7 Two-Way Stop-Control Report

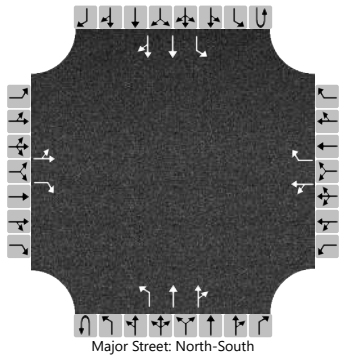
General Information

Analyst	MP
Agency/Co.	Lee Engineering, LLC
Date Performed	10/12/2022
Analysis Year	2033
Time Analyzed	1 Hour
Intersection Orientation	North-South
Project Description	Horizon Year - Build Total PM Peak

Site Information

Intersection	98th & Walgreens
Jurisdiction	CABQ
East/West Street	Access A & Walgreens
North/South Street	98th St
Peak Hour Factor	0.94
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	1	0	1	2	0	0	1	2	0
Configuration		LT		R		LT		R		L	T	TR		L	T	TR
Volume (veh/h)		31	0	19		96	0	121	1	10	370	146	1	145	478	58
Percent Heavy Vehicles (%)		0	3	3		0	3	3	3	0			3	0		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized		No				No										
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9	6.4	4.1			6.4	4.1		
Critical Headway (sec)		7.50	6.56	6.96		7.50	6.56	6.96	6.46	4.10			6.46	4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3	2.5	2.2			2.5	2.2		
Follow-Up Headway (sec)		3.50	4.03	3.33		3.50	4.03	3.33	2.53	2.20			2.53	2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		33		20		102		129		12				155		
Capacity, c (veh/h)		211		707		270		720		953				1024		
v/c Ratio		0.16		0.03		0.38		0.18		0.01				0.15		
95% Queue Length, Q_{95} (veh)		0.6		0.1		1.8		0.7		0.0				0.5		
Control Delay (s/veh)		25.2		10.2		26.4		11.1		8.8				9.1		
Level of Service (LOS)		D		B		D		B		A				A		
Approach Delay (s/veh)		19.5				17.8				0.2				2.0		
Approach LOS		C				C										

HCS7 All-Way Stop Control Report

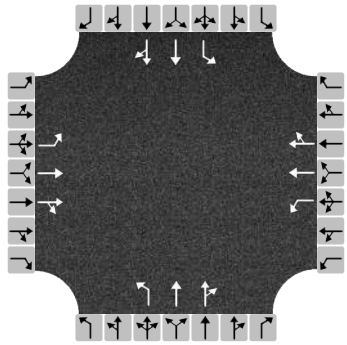
General Information

Analyst	MP
Agency/Co.	Lee Engineering, LLC
Date Performed	10/12/2022
Analysis Year	2022
Analysis Time Period (hrs)	1.00
Time Analyzed	1 Hour
Project Description	Existing AM Peak

Site Information

Intersection	98th & Gibson
Jurisdiction	CABQ
East/West Street	Gibson Blvd
North/South Street	98th St
Peak Hour Factor	0.90

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	120	221	42	53	82	20	40	380	89	12	313	42
% Thrus in Shared Lane			50			50			50			50
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	L	T	TR	L	T	TR	L	T	TR	L	T	TR
Flow Rate, v (veh/h)	133	123	169	59	46	68	44	211	310	13	174	221
Percent Heavy Vehicles	3	1	1	0	2	0	0	3	1	8	2	2

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
Initial Degree of Utilization, x	0.119	0.109	0.151	0.052	0.040	0.060	0.040	0.188	0.276	0.012	0.155	0.196
Final Departure Headway, hd (s)	8.85	8.32	8.13	9.51	9.05	8.78	8.46	8.01	7.76	8.93	8.33	8.18
Final Degree of Utilization, x	0.328	0.284	0.383	0.156	0.114	0.165	0.104	0.470	0.668	0.033	0.402	0.501
Move-Up Time, m (s)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Service Time, ts (s)	6.55	6.02	5.83	7.21	6.75	6.48	6.16	5.71	5.46	6.63	6.03	5.88

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	133	123	169	59	46	68	44	211	310	13	174	221
Capacity	407	433	443	378	398	410	425	449	464	403	432	440
95% Queue Length, Q_{95} (veh)	1.4	1.2	1.8	0.6	0.4	0.6	0.3	2.6	5.6	0.1	2.0	2.9
Control Delay (s/veh)	15.9	14.3	15.8	14.0	12.9	13.2	12.2	17.8	25.7	11.9	16.6	19.0
Level of Service, LOS	C	B	C	B	B	B	B	C	D	B	C	C
Approach Delay (s/veh)	15.4			13.4			21.7			17.8		
Approach LOS	C			B			C			C		
Intersection Delay, s/veh | LOS	18.0						C					

HCS7 All-Way Stop Control Report

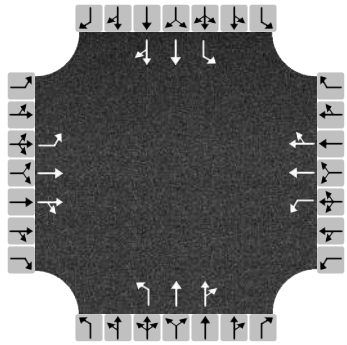
General Information

Analyst	MP
Agency/Co.	Lee Engineering, LLC
Date Performed	10/12/2022
Analysis Year	2022
Analysis Time Period (hrs)	1.00
Time Analyzed	1 Hour
Project Description	Existing PM Peak

Site Information

Intersection	98th & Gibson
Jurisdiction	CABQ
East/West Street	Gibson Blvd
North/South Street	98th St
Peak Hour Factor	0.95

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	62	81	41	50	160	33	73	335	41	29	392	148
% Thrus in Shared Lane			50			50			50			50
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	L	T	TR	L	T	TR	L	T	TR	L	T	TR
Flow Rate, v (veh/h)	65	43	86	53	84	119	77	176	219	31	206	362
Percent Heavy Vehicles	2	2	2	0	3	0	0	1	0	7	1	1

Departure Headway and Service Time

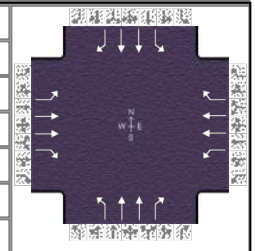
Initial Departure Headway, hd (s)	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
Initial Degree of Utilization, x	0.058	0.038	0.076	0.047	0.075	0.106	0.068	0.157	0.195	0.027	0.183	0.322
Final Departure Headway, hd (s)	9.18	8.68	8.33	8.96	8.52	8.26	8.32	7.83	7.68	8.20	7.59	7.29
Final Degree of Utilization, x	0.166	0.103	0.198	0.131	0.199	0.273	0.177	0.384	0.468	0.070	0.435	0.734
Move-Up Time, m (s)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Service Time, ts (s)	6.88	6.38	6.03	6.66	6.22	5.96	6.02	5.53	5.38	5.90	5.29	4.99

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	65	43	86	53	84	119	77	176	219	31	206	362
Capacity	392	415	432	402	423	436	433	460	469	439	474	494
95% Queue Length, Q_{95} (veh)	0.6	0.3	0.7	0.5	0.7	1.1	0.6	1.8	2.6	0.2	2.3	7.4
Control Delay (s/veh)	13.7	12.4	13.1	13.0	13.3	14.1	12.8	15.4	17.1	11.5	16.1	29.3
Level of Service, LOS	B	B	B	B	B	B	B	C	C	B	C	D
Approach Delay (s/veh)	13.1			13.6			15.8			23.9		
Approach LOS	B			B			C			C		
Intersection Delay, s/veh | LOS	18.2						C					

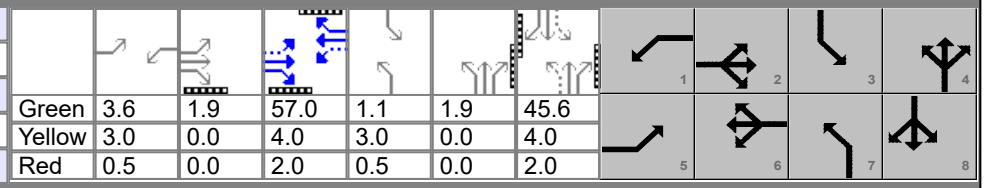
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2023	Analysis Period	1> 7:00
Intersection	98th & Gibson	File Name	3 98th & Gibson Background AM.xus		
Project Description	Build-Out Year - Background AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	121	223	42	54	83	20	40	384	90	12	316	42

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.6	1.9	57.0	1.1	1.9	45.6	
Yellow	3.0	0.0	4.0	3.0	0.0	4.0	
Red	0.5	0.0	2.0	0.5	0.0	2.0	

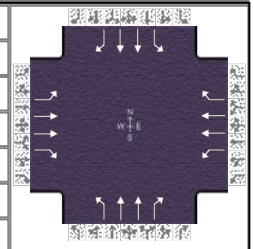
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	9.0	64.9	7.1	63.0	6.4	53.4	4.6	51.6
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	6.9		4.1		3.8	12.1	2.6	10.2
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	5.9	0.0	5.9
Phase Call Probability	0.99		0.86		0.76	1.00	0.35	1.00
Max Out Probability	1.00		0.00		0.91	0.01	0.00	0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	121	223	42	54	83	20	40	384	90	12	316	42
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1767	1795	1585	1810	1724	1610	1810	1766	1598	1697	1781	1585
Queue Service Time (g_s), s	4.9	4.7	1.9	2.1	1.8	0.9	1.8	10.1	4.9	0.6	8.2	2.3
Cycle Queue Clearance Time (g_c), s	4.9	4.7	1.9	2.1	1.8	0.9	1.8	10.1	4.9	0.6	8.2	2.3
Green Ratio (*g/C*)	0.48	0.45	0.45	0.47	0.44	0.44	0.38	0.36	0.36	0.36	0.35	0.35
Capacity (*c*), veh/h	684	1627	719	578	1511	706	406	1289	583	328	1248	556
Volume-to-Capacity Ratio (*X*)	0.177	0.137	0.058	0.093	0.055	0.028	0.098	0.298	0.154	0.037	0.253	0.076
Back of Queue (*Q*), ft/ln (95 th percentile)	91.6	90.3	33.7	40.1	34.7	16.1	35.8	199.9	89.8	11.7	165.2	41.9
Back of Queue (*Q*), veh/ln (95 th percentile)	3.6	3.6	1.3	1.6	1.3	0.6	1.4	7.8	3.6	0.4	6.5	1.7
Queue Storage Ratio (*RQ*) (95 th percentile)	0.23	0.00	0.20	0.13	0.00	0.10	0.13	0.00	0.53	0.03	0.00	0.25
Uniform Delay (d_1), s/veh	18.6	20.7	20.0	19.2	21.0	20.8	26.2	29.4	27.8	27.3	30.1	28.2
Incremental Delay (d_2), s/veh	0.0	0.2	0.2	0.0	0.1	0.1	0.0	0.6	0.6	0.0	0.5	0.3
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	18.6	20.9	20.1	19.2	21.1	20.8	26.2	30.0	28.3	27.4	30.6	28.4
Level of Service (LOS)	B	C	C	B	C	C	C	C	C	C	C	C
Approach Delay, s/veh / LOS	20.1	C		20.4	C		29.4	C		30.2	C	
Intersection Delay, s/veh / LOS	26.1						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.43	B	2.44	B	2.44	B
Bicycle LOS Score / LOS	0.81	A	0.62	A	0.91	A	0.79	A

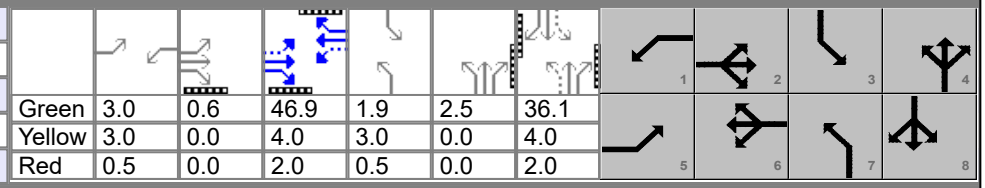
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2023	Analysis Period	1> 7:00
Intersection	98th & Gibson	File Name	4 98th & Gibson Background PM.xus		
Project Description	Background AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	63	82	41	51	162	33	74	338	41	29	396	149

Signal Information			
Cycle, s	110.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.0	0.6	46.9	1.9	2.5	36.1
Yellow	3.0	0.0	4.0	3.0	0.0	4.0
Red	0.5	0.0	2.0	0.5	0.0	2.0

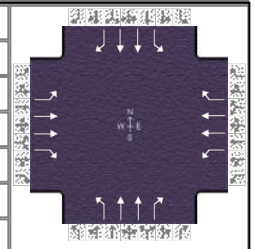
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	7.1	53.5	6.5	52.9	7.9	44.6	5.4	42.1
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	4.2		3.7		4.9	9.4	3.2	11.2
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	6.4	0.0	6.2
Phase Call Probability	0.85		0.79		0.90	1.00	0.59	1.00
Max Out Probability	1.00		0.31		0.18	0.03	0.00	0.05

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	63	82	41	51	162	33	74	338	41	29	396	149
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1781	1585	1810	1766	1610	1810	1795	1610	1711	1795	1598
Queue Service Time (g_s), s	2.2	1.5	1.7	1.7	3.0	1.3	2.9	7.4	1.9	1.2	9.2	7.6
Cycle Queue Clearance Time (g_c), s	2.2	1.5	1.7	1.7	3.0	1.3	2.9	7.4	1.9	1.2	9.2	7.6
Green Ratio (*g/C*)	0.46	0.43	0.43	0.45	0.43	0.43	0.38	0.35	0.35	0.35	0.33	0.33
Capacity (*c*), veh/h	612	1539	685	650	1507	687	384	1259	565	360	1177	524
Volume-to-Capacity Ratio (*X*)	0.103	0.053	0.060	0.078	0.107	0.048	0.193	0.268	0.073	0.080	0.336	0.284
Back of Queue (*Q*), ft/ln (95 th percentile)	39.5	27.5	28.4	31.6	56.9	22.6	55.6	145.8	33.4	23.8	181.6	138.8
Back of Queue (*Q*), veh/ln (95 th percentile)	1.6	1.1	1.1	1.3	2.2	0.9	2.2	5.8	1.3	0.9	7.2	5.5
Queue Storage Ratio (*RQ*) (95 th percentile)	0.10	0.00	0.17	0.10	0.00	0.14	0.21	0.00	0.20	0.07	0.00	0.82
Uniform Delay (d_1), s/veh	16.7	18.2	18.2	16.9	18.9	18.5	22.7	25.6	23.8	24.2	27.9	27.4
Incremental Delay (d_2), s/veh	0.0	0.1	0.2	0.0	0.1	0.1	0.1	0.5	0.2	0.0	0.8	1.4
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	16.7	18.2	18.4	17.0	19.1	18.6	22.8	26.1	24.0	24.2	28.7	28.8
Level of Service (LOS)	B	B	B	B	B	B	C	C	C	C	C	C
Approach Delay, s/veh / LOS	17.8	B		18.6	B		25.4	C		28.5	C	
Intersection Delay, s/veh / LOS	24.5						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.43	B	2.44	B	2.44	B
Bicycle LOS Score / LOS	0.64	A	0.69	A	0.86	A	0.96	A

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2023	Analysis Period	1> 7:00
Intersection	98th & Gibson	File Name	5 98th & Gibson Build Out AM.xus		
Project Description	Build-Out Year - Build Total AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	159	194	42	149	92	20	40	417	90	50	262	42

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.5	2.5	54.5	3.0	0.8	45.2	1	2	3	4	5	6	7	8
Yellow	3.0	0.0	4.0	3.0	0.0	4.0								
Red	0.5	0.0	2.0	0.5	0.0	1.5								

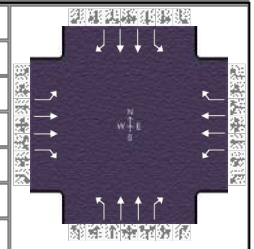
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	9.0	60.5	11.5	63.0	6.5	50.7	7.3	51.5
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	7.5		8.0		3.9	13.4	4.5	8.7
Green Extension Time (g_e), s	0.0	0.0	0.1	0.0	0.0	5.6	0.0	5.7
Phase Call Probability	1.00		1.00		0.76	1.00	0.84	1.00
Max Out Probability	1.00		1.00		0.96	0.01	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	159	194	42	149	92	20	40	417	90	50	262	42
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1767	1795	1585	1810	1724	1610	1810	1766	1598	1697	1781	1585
Queue Service Time (g_s), s	5.5	4.3	2.1	6.0	2.0	0.9	1.9	11.4	5.1	2.5	6.7	2.3
Cycle Queue Clearance Time (g_c), s	5.5	4.3	2.1	6.0	2.0	0.9	1.9	11.4	5.1	2.5	6.7	2.3
Green Ratio (*g/C*)	0.46	0.42	0.42	0.49	0.44	0.44	0.37	0.34	0.34	0.37	0.35	0.35
Capacity (*c*), veh/h	658	1505	665	633	1511	706	418	1216	550	341	1248	555
Volume-to-Capacity Ratio (*X*)	0.242	0.129	0.063	0.235	0.061	0.028	0.096	0.343	0.164	0.147	0.210	0.076
Back of Queue (*Q*), ft/ln (95 th percentile)	133.7	83.6	36.3	111	38.5	16.1	36.5	221.7	93.3	48.4	134.6	41.9
Back of Queue (*Q*), veh/ln (95 th percentile)	5.2	3.3	1.4	4.4	1.5	0.6	1.5	8.7	3.7	1.8	5.3	1.7
Queue Storage Ratio (*RQ*) (95 th percentile)	0.33	0.00	0.21	0.36	0.00	0.10	0.14	0.00	0.55	0.13	0.00	0.25
Uniform Delay (d_1), s/veh	20.9	23.2	22.5	18.7	21.1	20.8	26.9	31.7	29.6	26.9	29.6	28.2
Incremental Delay (d_2), s/veh	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.8	0.6	0.1	0.4	0.3
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	21.0	23.3	22.7	18.7	21.1	20.8	26.9	32.5	30.3	26.9	30.0	28.4
Level of Service (LOS)	C	C	C	B	C	C	C	C	C	C	C	C
Approach Delay, s/veh / LOS	22.3	C		19.7	B		31.7	C		29.4	C	
Intersection Delay, s/veh / LOS	26.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.43	B	2.44	B	2.44	B
Bicycle LOS Score / LOS	0.81	A	0.70	A	0.94	A	0.78	A

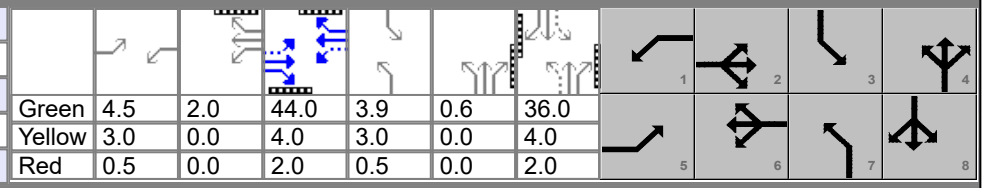
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2023	Analysis Period	1> 17:00
Intersection	98th & Gibson	File Name	6 98th & Gibson Build Out PM.xus		
Project Description	Build-Out Year - Build Total PM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	95	58	41	132	170	33	74	367	42	61	351	149

Signal Information			
Cycle, s	110.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	4.5	2.0	44.0	3.9	0.6	36.0
Yellow	3.0	0.0	4.0	3.0	0.0	4.0
Red	0.5	0.0	2.0	0.5	0.0	2.0

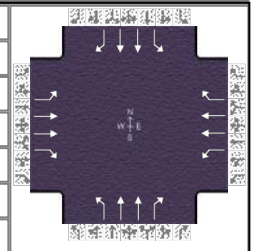
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	8.0	50.0	10.0	52.0	8.0	42.6	7.4	42.0
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	5.5		6.6		5.0	10.4	4.6	10.0
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	6.1	0.0	6.1
Phase Call Probability	0.95		0.98		0.90	1.00	0.84	1.00
Max Out Probability	1.00		1.00		0.20	0.04	0.01	0.04

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	95	58	41	132	170	33	74	367	42	61	351	149
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1781	1585	1810	1766	1610	1810	1795	1610	1711	1795	1598
Queue Service Time (g_s), s	3.5	1.1	1.8	4.6	3.2	1.3	3.0	8.4	2.0	2.6	8.0	7.6
Cycle Queue Clearance Time (g_c), s	3.5	1.1	1.8	4.6	3.2	1.3	3.0	8.4	2.0	2.6	8.0	7.6
Green Ratio (*g/C*)	0.44	0.40	0.40	0.46	0.42	0.42	0.37	0.33	0.33	0.36	0.33	0.33
Capacity (*c*), veh/h	589	1423	633	706	1477	673	405	1194	536	358	1176	523
Volume-to-Capacity Ratio (*X*)	0.161	0.041	0.065	0.187	0.115	0.049	0.183	0.307	0.078	0.170	0.299	0.285
Back of Queue (*Q*), ft/ln (95 th percentile)	63.2	20.7	30.4	83.7	60.9	23	56.5	165.3	35.4	49.4	158.7	138.9
Back of Queue (*Q*), veh/ln (95 th percentile)	2.5	0.8	1.2	3.3	2.4	0.9	2.3	6.6	1.4	1.9	6.3	5.5
Queue Storage Ratio (*RQ*) (95 th percentile)	0.16	0.00	0.18	0.27	0.00	0.14	0.21	0.00	0.21	0.14	0.00	0.82
Uniform Delay (d_1), s/veh	18.2	20.2	20.3	17.1	19.6	19.0	23.2	27.3	25.1	23.6	27.6	27.4
Incremental Delay (d_2), s/veh	0.0	0.1	0.2	0.0	0.2	0.1	0.1	0.7	0.3	0.1	0.7	1.4
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	18.3	20.2	20.5	17.1	19.7	19.2	23.3	27.9	25.4	23.7	28.2	28.8
Level of Service (LOS)	B	C	C	B	B	B	C	C	C	C	C	C
Approach Delay, s/veh / LOS	19.3	B		18.6	B		27.0	C		27.9	C	
Intersection Delay, s/veh / LOS	24.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.43	B	2.44	B	2.44	B
Bicycle LOS Score / LOS	0.65	A	0.76	A	0.89	A	0.95	A

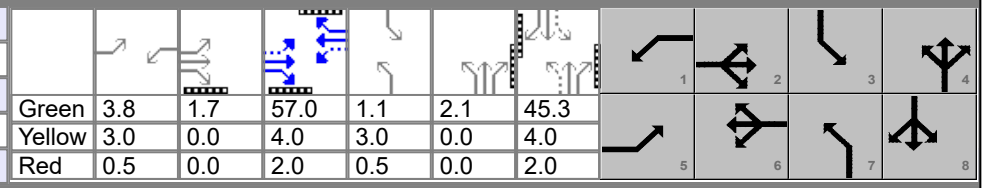
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2033	Analysis Period	1> 7:00
Intersection	98th & Gibson	File Name	7 98th & Gibson Horizon Background AM.xus		
Project Description	Horizon Year - Background AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	132	243	46	58	90	22	44	418	98	13	344	46

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.8	1.7	57.0	1.1	2.1	45.3	
Yellow	3.0	0.0	4.0	3.0	0.0	4.0	
Red	0.5	0.0	2.0	0.5	0.0	2.0	

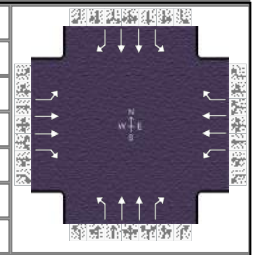
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	9.0	64.7	7.3	63.0	6.7	53.4	4.6	51.3
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	7.4		4.3		4.0	13.1	2.6	11.1
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	6.5	0.0	6.5
Phase Call Probability	0.99		0.88		0.80	1.00	0.37	1.00
Max Out Probability	1.00		0.01		1.00	0.01	0.00	0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	132	243	46	58	90	22	44	418	98	13	344	46
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1767	1795	1585	1810	1724	1610	1810	1766	1598	1697	1781	1585
Queue Service Time (g_s), s	5.4	5.2	2.1	2.3	2.0	1.0	2.0	11.1	5.4	0.6	9.1	2.5
Cycle Queue Clearance Time (g_c), s	5.4	5.2	2.1	2.3	2.0	1.0	2.0	11.1	5.4	0.6	9.1	2.5
Green Ratio (*g/C*)	0.48	0.45	0.45	0.47	0.44	0.44	0.38	0.36	0.36	0.36	0.35	0.35
Capacity (*c*), veh/h	679	1621	716	566	1511	706	393	1287	582	313	1241	552
Volume-to-Capacity Ratio (*X*)	0.194	0.150	0.064	0.102	0.060	0.031	0.112	0.325	0.168	0.042	0.277	0.083
Back of Queue (*Q*), ft/ln (95 th percentile)	101	99.4	37.1	43	37.6	17.7	39.4	215.7	98.4	12.7	182.2	46.2
Back of Queue (*Q*), veh/ln (95 th percentile)	3.9	3.9	1.5	1.7	1.4	0.7	1.6	8.4	3.9	0.5	7.2	1.8
Queue Storage Ratio (*RQ*) (95 th percentile)	0.25	0.00	0.22	0.14	0.00	0.11	0.15	0.00	0.58	0.04	0.00	0.27
Uniform Delay (d_1), s/veh	18.8	21.0	20.1	19.2	21.1	20.8	26.2	29.8	28.0	27.6	30.5	28.4
Incremental Delay (d_2), s/veh	0.1	0.2	0.2	0.0	0.1	0.1	0.0	0.7	0.6	0.0	0.6	0.3
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	18.9	21.2	20.3	19.2	21.1	20.9	26.2	30.5	28.6	27.6	31.1	28.7
Level of Service (LOS)	B	C	C	B	C	C	C	C	C	C	C	C
Approach Delay, s/veh / LOS	20.4	C		20.4	C		29.8	C		30.7	C	
Intersection Delay, s/veh / LOS	26.5						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.43	B	2.44	B	2.44	B
Bicycle LOS Score / LOS	0.83	A	0.63	A	0.95	A	0.82	A

HCS7 Signalized Intersection Results Summary

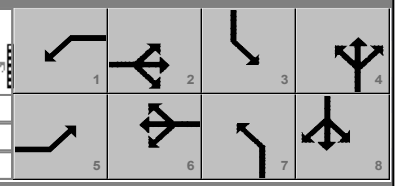
General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2033	Analysis Period	1> 17:00
Intersection	98th & Gibson	File Name	8 98th & Gibson Horizon Background PM.xus		
Project Description	Horizon Year - Background PM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	69	89	45	55	176	36	80	369	45	32	431	163

Signal Information			
Cycle, s	110.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	2.8	0.6	61.6	2.3	3.0	20.6						
Yellow	3.0	0.0	4.0	3.0	0.0	4.0						
Red	0.5	0.0	2.0	0.5	0.0	2.0						



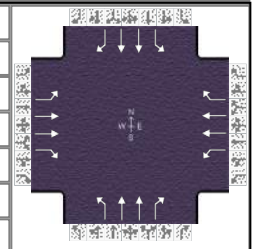
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	6.9	68.2	6.3	67.6	8.8	29.7	5.8	26.6
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	3.8		3.4		5.8	11.9	3.7	14.2
Green Extension Time (g_e), s	0.1	0.0	0.1	0.0	0.0	6.9	0.0	6.4
Phase Call Probability	0.88		0.81		0.91	1.00	0.62	1.00
Max Out Probability	0.00		0.00		0.90	0.06	0.00	0.12

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	69	89	45	55	176	36	80	369	45	32	431	163
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1781	1585	1810	1766	1610	1810	1795	1610	1711	1795	1598
Queue Service Time (g_s), s	1.8	1.2	1.4	1.4	2.5	1.1	3.8	9.9	2.5	1.7	12.2	10.2
Cycle Queue Clearance Time (g_c), s	1.8	1.2	1.4	1.4	2.5	1.1	3.8	9.9	2.5	1.7	12.2	10.2
Green Ratio (*g/C*)	0.59	0.57	0.57	0.59	0.56	0.56	0.25	0.22	0.22	0.21	0.19	0.19
Capacity (*c*), veh/h	770	2014	896	824	1979	902	228	773	347	205	673	300
Volume-to-Capacity Ratio (*X*)	0.090	0.044	0.050	0.067	0.089	0.040	0.351	0.478	0.130	0.156	0.640	0.544
Back of Queue (*Q*), ft/ln (95 th percentile)	30.1	21.3	22.2	23.8	44.3	17.6	75.4	196.3	44.5	33	233.9	186.9
Back of Queue (*Q*), veh/ln (95 th percentile)	1.2	0.8	0.9	1.0	1.7	0.7	3.0	7.8	1.8	1.2	9.3	7.4
Queue Storage Ratio (*RQ*) (95 th percentile)	0.08	0.00	0.13	0.08	0.00	0.11	0.28	0.00	0.26	0.09	0.00	1.10
Uniform Delay (d_1), s/veh	9.6	10.7	10.7	9.8	11.2	10.9	33.3	37.8	34.8	35.5	41.2	40.4
Incremental Delay (d_2), s/veh	0.0	0.0	0.1	0.0	0.1	0.1	0.3	0.7	0.2	0.1	1.5	2.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	9.6	10.7	10.8	9.8	11.3	11.0	33.6	38.4	35.1	35.6	42.7	42.6
Level of Service (LOS)	A	B	B	A	B	B	C	D	D	D	D	D
Approach Delay, s/veh / LOS	10.3	B		10.9	B		37.3	D		42.3	D	
Intersection Delay, s/veh / LOS	31.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.40	B	2.40	B	2.45	B	2.45	B
Bicycle LOS Score / LOS	0.66	A	0.71	A	0.90	A	1.00	A

HCS7 Signalized Intersection Results Summary

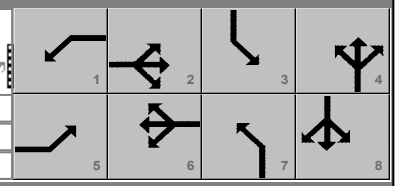
General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2033	Analysis Period	1> 7:00
Intersection	98th & Gibson	File Name	9 98th & GibsonHorizon Total AM.xus		
Project Description	Horizon Year - Build Total AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	170	214	46	153	99	22	44	451	98	51	290	46

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.5	2.6	54.3	3.2	0.6	45.2						
Yellow	3.0	0.0	4.0	3.0	0.0	4.0						
Red	0.5	0.0	2.0	0.5	0.0	1.5						



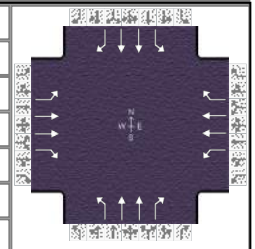
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	9.0	60.3	11.7	63.0	6.7	50.7	7.3	51.3
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	7.5		8.1		4.0	14.5	4.5	9.5
Green Extension Time (g_e), s	0.0	0.0	0.1	0.0	0.0	6.2	0.0	6.3
Phase Call Probability	1.00		1.00		0.80	1.00	0.84	1.00
Max Out Probability	1.00		1.00		1.00	0.02	0.00	0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	170	214	46	153	99	22	44	451	98	51	290	46
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1767	1795	1585	1810	1724	1610	1810	1766	1598	1697	1781	1585
Queue Service Time (g_s), s	5.5	4.8	2.3	6.1	2.2	1.0	2.0	12.5	5.6	2.5	7.5	2.5
Cycle Queue Clearance Time (g_c), s	5.5	4.8	2.3	6.1	2.2	1.0	2.0	12.5	5.6	2.5	7.5	2.5
Green Ratio (*g/C*)	0.46	0.42	0.42	0.49	0.44	0.44	0.37	0.34	0.34	0.37	0.35	0.35
Capacity (*c*), veh/h	653	1501	663	621	1511	706	405	1214	549	327	1240	552
Volume-to-Capacity Ratio (*X*)	0.260	0.143	0.069	0.246	0.065	0.031	0.109	0.371	0.179	0.156	0.234	0.083
Back of Queue (*Q*), ft/ln (95 th percentile)	144.7	93	40	114	41.5	17.7	40.1	238.3	102.4	49.4	151	46.2
Back of Queue (*Q*), veh/ln (95 th percentile)	5.7	3.7	1.6	4.6	1.6	0.7	1.6	9.3	4.1	1.9	5.9	1.8
Queue Storage Ratio (*RQ*) (95 th percentile)	0.36	0.00	0.24	0.37	0.00	0.11	0.15	0.00	0.60	0.14	0.00	0.27
Uniform Delay (d_1), s/veh	21.2	23.4	22.7	18.7	21.1	20.8	26.9	32.1	29.8	27.0	30.1	28.4
Incremental Delay (d_2), s/veh	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.9	0.7	0.1	0.4	0.3
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	21.3	23.6	22.9	18.7	21.2	20.9	26.9	33.0	30.5	27.1	30.5	28.7
Level of Service (LOS)	C	C	C	B	C	C	C	C	C	C	C	C
Approach Delay, s/veh / LOS	22.6	C		19.8	B		32.1	C		29.8	C	
Intersection Delay, s/veh / LOS	27.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.43	B	2.44	B	2.44	B
Bicycle LOS Score / LOS	0.84	A	0.71	A	0.98	A	0.81	A

HCS7 Signalized Intersection Results Summary

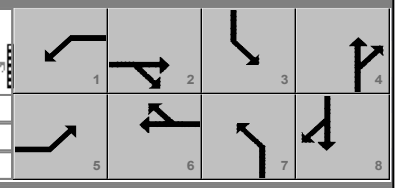
General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2033	Analysis Period	1> 17:00
Intersection	98th & Gibson	File Name	10 98th & Gibson Horizon Total PM.xus		
Project Description	Horizon Year - Build Total PM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	100	65	45	136	184	36	80	398	45	64	386	163

Signal Information			
Cycle, s	110.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.8	2.3	55.2	6.1	0.2	19.5						
Yellow	3.0	0.0	4.0	3.0	0.0	4.0						
Red	0.5	0.0	2.0	0.5	0.0	2.0						



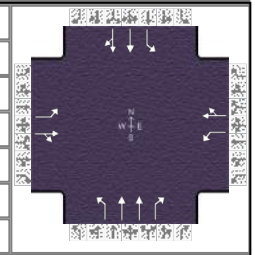
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	11.3	61.2	13.6	63.5	9.7	25.6	9.6	25.5
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	8.1		10.1		6.8	13.3	6.0	12.9
Green Extension Time (g_e), s	0.1	0.0	0.2	0.0	0.0	6.3	0.0	6.4
Phase Call Probability	0.95		0.98		0.91	1.00	1.00	1.00
Max Out Probability	0.00		0.00		1.00	0.11	0.21	0.11

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	100	65	45	136	184	36	80	398	45	64	386	163
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1781	1585	1810	1766	1610	1810	1795	1610	1711	1795	1598
Queue Service Time (g_s), s	6.1	1.0	1.6	8.1	2.9	1.2	4.8	11.3	2.6	4.0	10.9	10.3
Cycle Queue Clearance Time (g_c), s	6.1	1.0	1.6	8.1	2.9	1.2	4.8	11.3	2.6	4.0	10.9	10.3
Green Ratio (*g/C*)	0.07	0.50	0.50	0.09	0.52	0.52	0.06	0.18	0.18	0.06	0.18	0.18
Capacity (*c*), veh/h	126	1787	796	166	1848	842	102	640	287	94	635	283
Volume-to-Capacity Ratio (*X*)	0.792	0.036	0.057	0.817	0.100	0.043	0.782	0.622	0.157	0.680	0.608	0.577
Back of Queue (*Q*), ft/ln (95 th percentile)	128.2	18.4	26.5	169.3	51.4	19.6	113.4	220	47	85.5	214.5	190.9
Back of Queue (*Q*), veh/ln (95 th percentile)	5.0	0.7	1.0	6.8	2.0	0.8	4.5	8.7	1.9	3.2	8.5	7.6
Queue Storage Ratio (*RQ*) (95 th percentile)	0.32	0.00	0.16	0.56	0.00	0.12	0.42	0.00	0.28	0.24	0.00	1.12
Uniform Delay (d_1), s/veh	50.3	13.9	14.0	49.0	13.2	12.8	51.2	41.8	38.2	51.0	41.8	41.5
Incremental Delay (d_2), s/veh	4.3	0.0	0.1	3.8	0.1	0.1	13.0	1.4	0.4	3.2	1.4	2.7
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	54.6	13.9	14.2	52.9	13.3	12.9	64.2	43.2	38.6	54.3	43.1	44.2
Level of Service (LOS)	D	B	B	D	B	B	E	D	D	D	D	D
Approach Delay, s/veh / LOS	33.4	C		28.4	C		46.0	D		44.6	D	
Intersection Delay, s/veh / LOS	40.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.41	B	2.41	B	2.45	B	2.46	B
Bicycle LOS Score / LOS	0.66	A	0.78	A	0.92	A	0.99	A

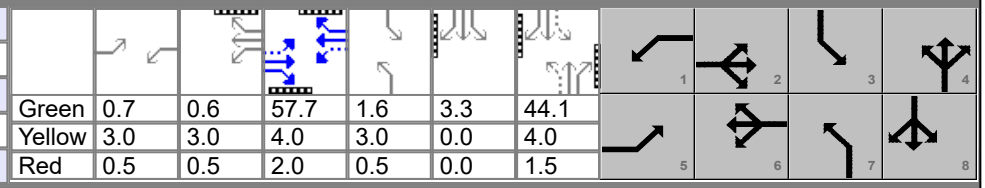
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	98th & Blake	File Name	1 98th & Blake Existing AM.xus		
Project Description	Existing AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	7	50	60	80	22	47	21	402	139	68	361	5

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	0.7	0.6	57.7	1.6	3.3	44.1
Yellow	3.0	3.0	4.0	3.0	0.0	4.0
Red	0.5	0.5	2.0	0.5	0.0	1.5

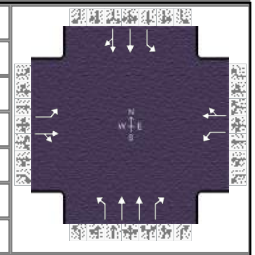
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	4.2	63.7	8.3	67.8	5.1	49.6	8.4	52.9
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	2.3		5.0		3.0	13.1	5.3	11.0
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	5.7	0.0	5.9
Phase Call Probability	0.22		0.94		0.53	1.00	0.91	1.00
Max Out Probability	0.77		0.03		0.11	0.02	0.01	0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	7	110		80	69		21	402	102	68	183	183
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1767	1715		1810	1613		1810	1766	1598	1697	1870	1861
Queue Service Time (g_s), s	0.3	5.0		3.0	3.0		1.0	11.1	5.9	3.3	9.0	9.0
Cycle Queue Clearance Time (g_c), s	0.3	5.0		3.0	3.0		1.0	11.1	5.9	3.3	9.0	9.0
Green Ratio (*g/C*)	0.45	0.44		0.50	0.48		0.35	0.34	0.34	0.39	0.36	0.36
Capacity (*c*), veh/h	642	762		651	767		362	1185	536	353	675	671
Volume-to-Capacity Ratio (*X*)	0.011	0.144		0.123	0.090		0.058	0.339	0.190	0.193	0.272	0.272
Back of Queue (*Q*), ft/ln (95 th percentile)	5.4	94.2		57	56.1		19.6	217.1	108.4	64.8	193.6	193.2
Back of Queue (*Q*), veh/ln (95 th percentile)	0.2	3.7		2.3	2.1		0.8	8.5	4.3	2.4	7.6	7.6
Queue Storage Ratio (*RQ*) (95 th percentile)	0.02	0.00		0.32	0.00		0.22	0.00	0.90	0.16	0.00	0.00
Uniform Delay (d_1), s/veh	19.8	21.5		17.5	18.7		28.2	32.4	30.7	26.1	29.4	29.5
Incremental Delay (d_2), s/veh	0.0	0.4		0.0	0.2		0.0	0.8	0.8	0.1	1.0	1.0
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	19.8	21.9		17.5	18.9		28.2	33.2	31.5	26.2	30.4	30.5
Level of Service (LOS)	B	C		B	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	21.7	C		18.1	B		32.6	C		29.8	C	
Intersection Delay, s/veh / LOS	28.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	2.27	B	1.93	B	1.93	B
Bicycle LOS Score / LOS	0.68	A	0.73	A	0.92	A	0.85	A

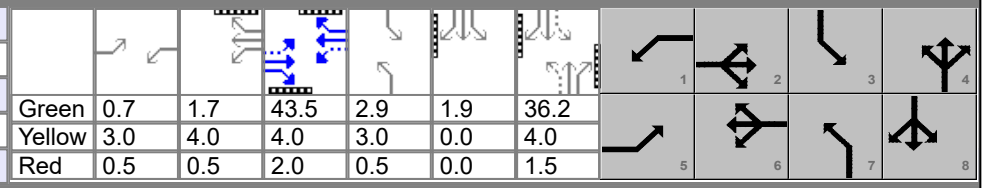
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	98th & Blake	File Name	2 98th & Blake Existing PM.xus		
Project Description	Existing PM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	9	37	43	119	71	93	46	352	74	77	338	16

Signal Information			
Cycle, s	110.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	0.7	1.7	43.5	2.9	1.9	36.2
Yellow	3.0	4.0	4.0	3.0	0.0	4.0
Red	0.5	0.5	2.0	0.5	0.0	1.5

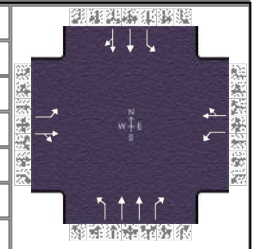
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	4.2	49.5	10.5	55.8	6.4	41.7	8.3	43.6
Change Period, ($Y+R_c$), s	3.5	6.0	4.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	2.3		6.1		3.9	10.1	5.3	9.6
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	4.6	0.0	4.7
Phase Call Probability	0.24		0.97		0.75	1.00	0.90	1.00
Max Out Probability	1.00		1.00		0.02	0.02	0.06	0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	9	80		119	164		46	352	41	77	178	176
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1705		1810	1680		1810	1795	1610	1711	1885	1854
Queue Service Time (g_s), s	0.3	3.3		4.1	6.5		1.9	8.1	1.9	3.3	7.5	7.6
Cycle Queue Clearance Time (g_c), s	0.3	3.3		4.1	6.5		1.9	8.1	1.9	3.3	7.5	7.6
Green Ratio (*g/C*)	0.40	0.40		0.47	0.45		0.35	0.32	0.32	0.37	0.34	0.34
Capacity (*c*), veh/h	536	675		654	760		379	1165	523	388	644	633
Volume-to-Capacity Ratio (*X*)	0.017	0.119		0.182	0.216		0.121	0.302	0.078	0.198	0.276	0.278
Back of Queue (*Q*), ft/ln (95 th percentile)	6.3	62		75.5	120.5		35.6	159.9	35	62.1	160.2	159
Back of Queue (*Q*), veh/ln (95 th percentile)	0.2	2.4		3.0	4.7		1.4	6.3	1.4	2.4	6.4	6.3
Queue Storage Ratio (*RQ*) (95 th percentile)	0.03	0.00		0.42	0.00		0.40	0.00	0.29	0.16	0.00	0.00
Uniform Delay (d_1), s/veh	19.8	21.1		16.8	18.3		24.0	27.8	25.7	23.1	26.3	26.3
Incremental Delay (d_2), s/veh	0.0	0.4		0.0	0.7		0.1	0.7	0.3	0.1	1.1	1.1
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	19.8	21.4		16.8	18.9		24.1	28.5	26.0	23.2	27.4	27.4
Level of Service (LOS)	B	C		B	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	21.3	C		18.0	B		27.8	C		26.7	C	
Intersection Delay, s/veh / LOS	24.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	2.27	B	1.93	B	1.92	B
Bicycle LOS Score / LOS	0.63	A	0.95	A	0.85	A	0.84	A

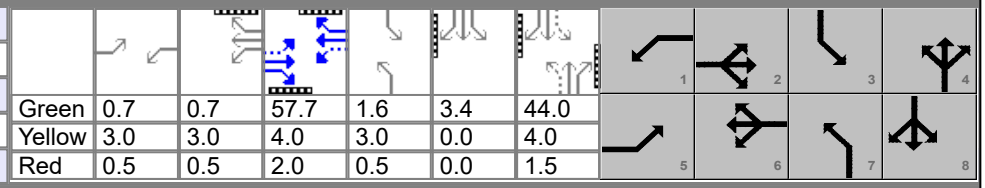
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2023	Analysis Period	1> 7:00
Intersection	98th & Blake	File Name	3 98th & Blake Background AM.xus		
Project Description	Build-Out Year - Background AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	7	51	61	81	22	47	21	406	140	69	365	5

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	0.7	0.7	57.7	1.6	3.4	44.0
Yellow	3.0	3.0	4.0	3.0	0.0	4.0
Red	0.5	0.5	2.0	0.5	0.0	1.5

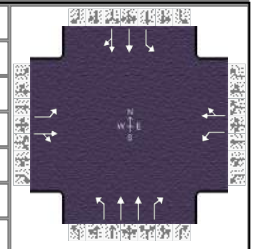
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	4.2	63.7	8.3	67.8	5.1	49.5	8.5	52.9
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	2.3		5.1		3.0	13.2	5.4	11.2
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	5.8	0.0	5.9
Phase Call Probability	0.22		0.95		0.53	1.00	0.92	1.00
Max Out Probability	0.77		0.04		0.11	0.02	0.01	0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	7	112		81	69		21	406	103	69	185	185
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1767	1716		1810	1613		1810	1766	1598	1697	1870	1861
Queue Service Time (g_s), s	0.3	5.1		3.1	3.0		1.0	11.2	6.0	3.4	9.1	9.2
Cycle Queue Clearance Time (g_c), s	0.3	5.1		3.1	3.0		1.0	11.2	6.0	3.4	9.1	9.2
Green Ratio (*g/C*)	0.45	0.44		0.50	0.48		0.35	0.33	0.33	0.39	0.36	0.36
Capacity (*c*), veh/h	642	761		649	767		360	1183	535	352	675	671
Volume-to-Capacity Ratio (*X*)	0.011	0.147		0.125	0.090		0.058	0.343	0.192	0.196	0.275	0.275
Back of Queue (*Q*), ft/ln (95 th percentile)	5.5	96.2		57.7	56.1		19.6	219.2	109.6	65.7	195.5	195
Back of Queue (*Q*), veh/ln (95 th percentile)	0.2	3.8		2.3	2.1		0.8	8.6	4.3	2.5	7.7	7.7
Queue Storage Ratio (*RQ*) (95 th percentile)	0.02	0.00		0.32	0.00		0.22	0.00	0.91	0.16	0.00	0.00
Uniform Delay (d_1), s/veh	19.8	21.5		17.5	18.7		28.3	32.5	30.7	26.1	29.5	29.5
Incremental Delay (d_2), s/veh	0.0	0.4		0.0	0.2		0.0	0.8	0.8	0.1	1.0	1.0
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	19.8	21.9		17.5	18.9		28.3	33.3	31.5	26.2	30.5	30.5
Level of Service (LOS)	B	C		B	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	21.8	C		18.1	B		32.7	C		29.8	C	
Intersection Delay, s/veh / LOS	28.9						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	2.27	B	1.93	B	1.93	B
Bicycle LOS Score / LOS	0.68	A	0.74	A	0.92	A	0.85	A

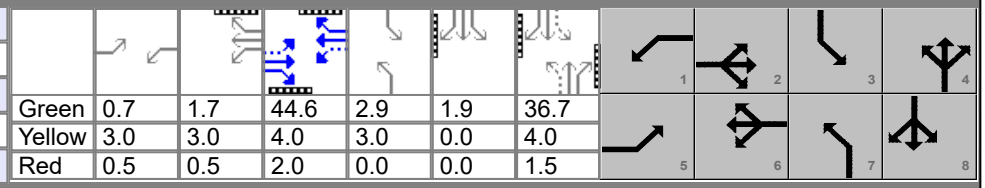
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2023	Analysis Period	1> 17:00
Intersection	98th & Blake	File Name	4 98th & Blake Background PM.xus		
Project Description	Build-Out Year -Background PM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	9	37	43	120	72	94	46	356	75	78	341	16

Signal Information			
Cycle, s	110.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	0.7	1.7	44.6	2.9	1.9	36.7
Yellow	3.0	3.0	4.0	3.0	0.0	4.0
Red	0.5	0.5	2.0	0.0	0.0	1.5

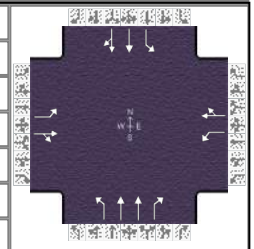
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	4.2	50.6	9.5	55.8	5.9	42.2	7.8	44.1
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.0	6.0	3.0	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	2.3		6.1		3.8	10.1	5.3	9.6
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	4.7	0.0	4.8
Phase Call Probability	0.24		0.97		0.75	1.00	0.91	1.00
Max Out Probability	1.00		1.00		0.01	0.02	0.02	0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	9	80		120	166		46	356	42	78	179	178
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1705		1810	1681		1810	1795	1610	1711	1885	1855
Queue Service Time (g_s), s	0.3	3.2		4.1	6.6		1.8	8.1	2.0	3.3	7.6	7.6
Cycle Queue Clearance Time (g_c), s	0.3	3.2		4.1	6.6		1.8	8.1	2.0	3.3	7.6	7.6
Green Ratio (*g/C*)	0.41	0.41		0.48	0.45		0.36	0.33	0.33	0.38	0.35	0.35
Capacity (*c*), veh/h	534	691		667	761		382	1181	530	391	653	642
Volume-to-Capacity Ratio (*X*)	0.017	0.116		0.180	0.218		0.120	0.301	0.079	0.199	0.275	0.277
Back of Queue (*Q*), ft/ln (95 th percentile)	6.2	60.8		74.5	122		35.4	157.6	34.3	61.8	160.2	159.1
Back of Queue (*Q*), veh/ln (95 th percentile)	0.2	2.4		3.0	4.8		1.4	6.3	1.4	2.3	6.4	6.3
Queue Storage Ratio (*RQ*) (95 th percentile)	0.02	0.00		0.24	0.00		0.13	0.00	0.20	0.17	0.00	0.00
Uniform Delay (d_1), s/veh	19.2	20.4		16.2	18.3		23.7	27.5	25.4	22.5	26.0	26.0
Incremental Delay (d_2), s/veh	0.0	0.3		0.0	0.7		0.1	0.2	0.1	0.1	1.0	1.1
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	19.2	20.8		16.3	18.9		23.8	27.7	25.5	22.6	27.0	27.1
Level of Service (LOS)	B	C		B	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	20.6	C		17.8	B		27.1	C		26.3	C	
Intersection Delay, s/veh / LOS	24.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	2.27	B	1.93	B	1.92	B
Bicycle LOS Score / LOS	0.63	A	0.96	A	0.85	A	0.85	A

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2023	Analysis Period	1> 7:00
Intersection	98th & Blake	File Name	5 98th & Blake Build Out AM.xus		
Project Description	Build-Out - Build Total AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	12	51	61	81	22	52	21	429	140	74	388	10

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	1.1	0.3	57.7	1.6	0.2	43.7	1	2	3	4		
Yellow	3.0	3.0	4.0	3.0	3.0	4.0	5	6	7	8		
Red	0.5	0.5	2.0	0.5	0.5	1.5						

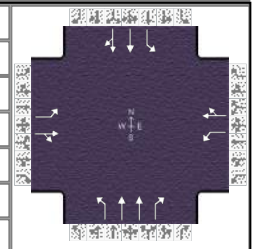
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	4.6	63.7	8.3	67.4	5.1	49.2	8.8	52.9
Change Period, (*Y+R c*), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (*g s*), s	2.5		5.1		3.0	14.0	5.6	12.0
Green Extension Time (*g e*), s	0.0	0.0	0.0	0.0	0.0	6.1	0.0	6.3
Phase Call Probability	0.35		0.95		0.53	1.00	0.93	1.00
Max Out Probability	1.00		0.04		0.12	0.03	0.02	0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	12	112		81	74		21	429	103	74	200	198
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1767	1716		1810	1608		1810	1766	1598	1697	1870	1853
Queue Service Time (*g s*), s	0.5	5.1		3.1	3.3		1.0	12.0	6.0	3.6	9.9	10.0
Cycle Queue Clearance Time (*g c*), s	0.5	5.1		3.1	3.3		1.0	12.0	6.0	3.6	9.9	10.0
Green Ratio (*g/C*)	0.45	0.44		0.50	0.47		0.34	0.33	0.33	0.39	0.36	0.36
Capacity (*c*), veh/h	638	761		649	760		347	1175	531	343	675	669
Volume-to-Capacity Ratio (*X*)	0.019	0.147		0.125	0.097		0.061	0.365	0.194	0.216	0.296	0.297
Back of Queue (*Q*), ft/ln (95 th percentile)	9.3	96.2		57.7	60.8		19.7	231.2	110.2	70.7	208.9	208
Back of Queue (*Q*), veh/ln (95 th percentile)	0.4	3.8		2.3	2.3		0.8	9.0	4.4	2.7	8.2	8.2
Queue Storage Ratio (*RQ*) (95 th percentile)	0.04	0.00		0.32	0.00		0.22	0.00	0.92	0.18	0.00	0.00
Uniform Delay (*d 1*), s/veh	19.7	21.5		17.5	18.9		28.5	33.0	30.9	26.2	29.7	29.7
Incremental Delay (*d 2*), s/veh	0.0	0.4		0.0	0.3		0.0	0.9	0.8	0.1	1.1	1.1
Initial Queue Delay (*d 3*), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	19.7	21.9		17.5	19.2		28.5	33.8	31.8	26.4	30.9	30.9
Level of Service (LOS)	B	C		B	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	21.7	C		18.3	B		33.2	C		30.2	C	
Intersection Delay, s/veh / LOS	29.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	2.27	B	1.93	B	1.93	B
Bicycle LOS Score / LOS	0.69	A	0.74	A	0.94	A	0.88	A

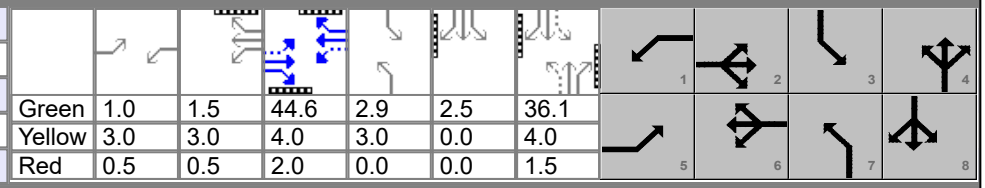
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2023	Analysis Period	1> 17:00
Intersection	98th & Blake	File Name	6 98th & Blake Build Out PM.xus		
Project Description	Build-Out Year - Build Total PM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	13	37	43	120	72	98	46	377	75	82	362	20

Signal Information			
Cycle, s	110.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.0	1.5	44.6	2.9	2.5	36.1			
Yellow	3.0	3.0	4.0	3.0	0.0	4.0			
Red	0.5	0.5	2.0	0.0	0.0	1.5			

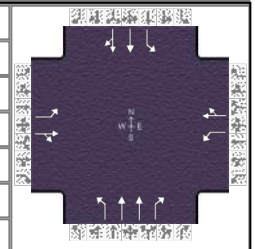
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	4.5	50.6	9.5	55.5	5.9	41.6	8.4	44.1
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.0	6.0	3.0	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	2.5		6.1		3.9	10.7	5.4	10.2
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	5.0	0.0	5.1
Phase Call Probability	0.33		0.97		0.75	1.00	1.00	1.00
Max Out Probability	1.00		1.00		0.01	0.03	0.03	0.02

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	13	80		120	170		46	377	42	82	192	190
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1705		1810	1678		1810	1795	1610	1711	1885	1849
Queue Service Time (g_s), s	0.5	3.2		4.1	6.8		1.9	8.7	2.0	3.4	8.2	8.2
Cycle Queue Clearance Time (g_c), s	0.5	3.2		4.1	6.8		1.9	8.7	2.0	3.4	8.2	8.2
Green Ratio (*g/C*)	0.41	0.41		0.48	0.45		0.35	0.32	0.32	0.39	0.35	0.35
Capacity (*c*), veh/h	531	691		667	755		371	1161	521	385	652	640
Volume-to-Capacity Ratio (*X*)	0.024	0.116		0.180	0.225		0.124	0.325	0.081	0.213	0.295	0.297
Back of Queue (*Q*), ft/ln (95 th percentile)	8.9	60.8		74.5	125.9		35.7	173.4	36	64.4	173.4	171.5
Back of Queue (*Q*), veh/ln (95 th percentile)	0.3	2.4		3.0	4.9		1.4	6.9	1.4	2.4	6.9	6.8
Queue Storage Ratio (*RQ*) (95 th percentile)	0.02	0.00		0.24	0.00		0.13	0.00	0.21	0.18	0.00	0.00
Uniform Delay (d_1), s/veh	19.1	20.4		16.2	18.5		24.1	28.1	25.9	22.3	26.2	26.2
Incremental Delay (d_2), s/veh	0.0	0.3		0.0	0.7		0.1	0.7	0.3	0.1	1.2	1.2
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	19.1	20.8		16.3	19.2		24.2	28.9	26.2	22.4	27.3	27.4
Level of Service (LOS)	B	C		B	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	20.5	C		18.0	B		28.2	C		26.5	C	
Intersection Delay, s/veh / LOS	24.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	2.27	B	1.93	B	1.92	B
Bicycle LOS Score / LOS	0.64	A	0.97	A	0.87	A	0.87	A

HCS7 Signalized Intersection Results Summary

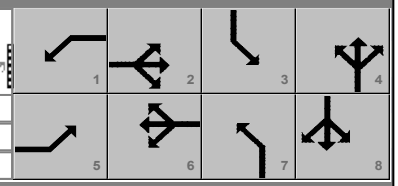
General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2033	Analysis Period	1> 7:00
Intersection	98th & Blake	File Name	7 98th & Blake Horizon Background AM.xus		
Project Description	Horizon Year - Background AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	8	55	66	88	24	52	23	442	153	75	397	6

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	0.8	0.9	57.3	1.7	0.1	43.7	
Yellow	3.0	3.0	4.0	3.0	3.0	4.0	
Red	0.5	0.5	2.0	0.5	0.5	1.5	



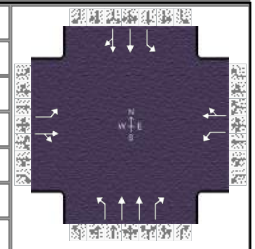
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	4.3	63.3	8.7	67.7	5.2	49.2	8.8	52.7
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	2.3		5.3		3.1	14.4	5.7	12.1
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	6.4	0.0	6.6
Phase Call Probability	0.25		0.96		0.56	1.00	0.93	1.00
Max Out Probability	0.87		0.06		0.15	0.04	0.02	0.02

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	8	121		88	76		23	442	116	75	202	201
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1767	1715		1810	1612		1810	1766	1598	1697	1870	1860
Queue Service Time (g_s), s	0.3	5.5		3.3	3.4		1.1	12.4	6.8	3.7	10.1	10.1
Cycle Queue Clearance Time (g_c), s	0.3	5.5		3.3	3.4		1.1	12.4	6.8	3.7	10.1	10.1
Green Ratio (*g/C*)	0.45	0.44		0.50	0.47		0.35	0.33	0.33	0.39	0.36	0.36
Capacity (*c*), veh/h	635	757		642	766		346	1173	531	338	673	669
Volume-to-Capacity Ratio (*X*)	0.013	0.160		0.137	0.099		0.067	0.377	0.219	0.222	0.300	0.301
Back of Queue (*Q*), ft/ln (95 th percentile)	6.2	105.1		62.9	62.2		21.6	237.9	125.5	71.7	211.3	210.7
Back of Queue (*Q*), veh/ln (95 th percentile)	0.2	4.2		2.5	2.4		0.9	9.3	5.0	2.7	8.3	8.3
Queue Storage Ratio (*RQ*) (95 th percentile)	0.03	0.00		0.35	0.00		0.24	0.00	1.05	0.18	0.00	0.00
Uniform Delay (d_1), s/veh	20.0	21.8		17.6	18.8		28.5	33.1	31.3	26.3	29.9	29.9
Incremental Delay (d_2), s/veh	0.0	0.5		0.0	0.3		0.0	0.9	0.9	0.1	1.1	1.2
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	20.0	22.3		17.6	19.1		28.5	34.1	32.2	26.4	31.0	31.0
Level of Service (LOS)	B	C		B	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	22.2	C		18.3	B		33.5	C		30.3	C	
Intersection Delay, s/veh / LOS	29.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	2.27	B	1.93	B	1.93	B
Bicycle LOS Score / LOS	0.70	A	0.76	A	0.97	A	0.88	A

HCS7 Signalized Intersection Results Summary

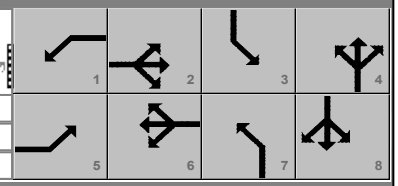
General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2033	Analysis Period	1> 17:00
Intersection	98th & Blake	File Name	8 98th & Blake Horizon Background PM.xus		
Project Description	Horizon Year - Background PM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	10	41	47	131	78	102	51	387	81	85	372	18

Signal Information			
Cycle, s	110.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	0.8	2.1	44.1	3.2	2.0	36.3						
Yellow	3.0	3.0	4.0	3.0	0.0	4.0						
Red	0.5	0.5	2.0	0.0	0.0	1.5						



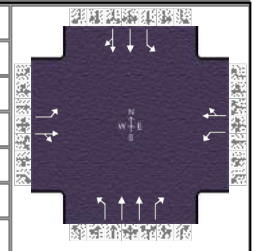
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	4.3	50.1	9.9	55.7	6.2	41.8	8.2	43.8
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.0	6.0	3.0	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	2.4		6.5		4.1	11.0	5.6	10.4
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	5.4	0.0	5.5
Phase Call Probability	0.26		0.98		0.79	1.00	0.93	1.00
Max Out Probability	1.00		1.00		0.01	0.04	0.05	0.03

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	10	88		131	180		51	387	81	85	196	194
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1706		1810	1680		1810	1795	1610	1711	1885	1854
Queue Service Time (g_s), s	0.4	3.6		4.5	7.2		2.1	9.0	3.9	3.6	8.4	8.4
Cycle Queue Clearance Time (g_c), s	0.4	3.6		4.5	7.2		2.1	9.0	3.9	3.6	8.4	8.4
Green Ratio (*g/C*)	0.41	0.40		0.48	0.45		0.35	0.33	0.33	0.38	0.34	0.34
Capacity (*c*), veh/h	522	684		661	759		369	1169	524	379	647	637
Volume-to-Capacity Ratio (*X*)	0.019	0.129		0.198	0.237		0.138	0.331	0.154	0.224	0.303	0.305
Back of Queue (*Q*), ft/ln (95 th percentile)	6.9	67.7		82	133.6		39.4	177.7	71.1	67.5	178.1	176.6
Back of Queue (*Q*), veh/ln (95 th percentile)	0.3	2.7		3.3	5.2		1.6	7.1	2.8	2.6	7.1	7.0
Queue Storage Ratio (*RQ*) (95 th percentile)	0.02	0.00		0.27	0.00		0.15	0.00	0.42	0.19	0.00	0.00
Uniform Delay (d_1), s/veh	19.4	20.8		16.4	18.5		23.9	28.0	26.3	22.6	26.5	26.5
Incremental Delay (d_2), s/veh	0.0	0.4		0.1	0.7		0.1	0.8	0.6	0.1	1.2	1.2
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	19.4	21.2		16.4	19.2		24.0	28.8	27.0	22.8	27.7	27.7
Level of Service (LOS)	B	C		B	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	21.0	C		18.0	B		28.0	C		26.8	C	
Intersection Delay, s/veh / LOS	24.9						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.27	B	1.93	B	1.92	B
Bicycle LOS Score / LOS	0.65	A	1.00	A	0.92	A	0.88	A

HCS7 Signalized Intersection Results Summary

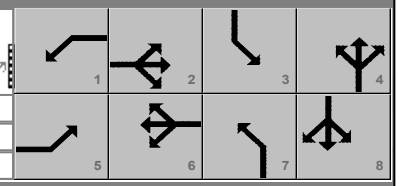
General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2033	Analysis Period	1> 7:00
Intersection	98th & Blake	File Name	9 98th & Blake Horizon Total AM.xus		
Project Description	Horizon Year - Build Total AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	13	55	66	88	24	57	23	465	153	80	420	11

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	1.1	0.5	57.3	1.8	0.4	43.4	
Yellow	3.0	3.0	4.0	3.0	3.0	4.0	
Red	0.5	0.5	2.0	0.5	0.5	1.5	



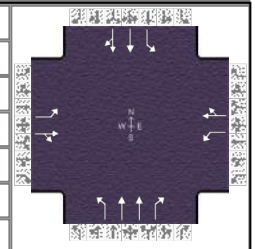
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	4.6	63.3	8.7	67.4	5.3	48.9	9.1	52.7
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	2.5		5.3		3.1	15.2	5.9	12.9
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	6.7	0.0	7.0
Phase Call Probability	0.37		0.96		0.56	1.00	0.94	1.00
Max Out Probability	1.00		0.06		0.15	0.05	0.04	0.02

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	13	121		88	81		23	465	116	80	216	215
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1767	1715		1810	1607		1810	1766	1598	1697	1870	1853
Queue Service Time (g_s), s	0.5	5.5		3.3	3.6		1.1	13.2	6.8	3.9	10.9	10.9
Cycle Queue Clearance Time (g_c), s	0.5	5.5		3.3	3.6		1.1	13.2	6.8	3.9	10.9	10.9
Green Ratio (*g/C*)	0.45	0.44		0.50	0.47		0.34	0.33	0.33	0.39	0.36	0.36
Capacity (*c*), veh/h	631	757		642	759		333	1165	527	330	673	666
Volume-to-Capacity Ratio (*X*)	0.021	0.160		0.137	0.107		0.069	0.399	0.220	0.242	0.321	0.322
Back of Queue (*Q*), ft/ln (95 th percentile)	10.1	105.1		62.9	67		21.7	250.2	126	76.7	224.7	223.6
Back of Queue (*Q*), veh/ln (95 th percentile)	0.4	4.2		2.5	2.6		0.9	9.8	5.0	2.9	8.8	8.8
Queue Storage Ratio (*RQ*) (95 th percentile)	0.05	0.00		0.35	0.00		0.24	0.00	1.05	0.19	0.00	0.00
Uniform Delay (d_1), s/veh	19.8	21.9		17.6	19.1		28.7	33.6	31.5	26.5	30.1	30.2
Incremental Delay (d_2), s/veh	0.0	0.5		0.0	0.3		0.0	1.0	1.0	0.1	1.3	1.3
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	19.8	22.3		17.6	19.4		28.8	34.7	32.5	26.6	31.4	31.4
Level of Service (LOS)	B	C		B	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	22.1	C		18.4	B		34.0	C		30.7	C	
Intersection Delay, s/veh / LOS	29.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	2.27	B	1.93	B	1.93	B
Bicycle LOS Score / LOS	0.71	A	0.77	A	0.99	A	0.91	A

HCS7 Signalized Intersection Results Summary

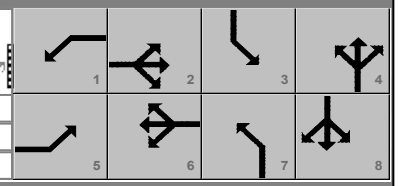
General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 12, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	98th	Analysis Year	2033	Analysis Period	1> 17:00
Intersection	98th & Blake	File Name	10 98th & Blake Horizon Total PM.xus		
Project Description	Horizon Year - Build Total PM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	14	41	47	131	78	106	51	408	81	89	393	22

Signal Information			
Cycle, s	110.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	1.0	1.8	44.1	3.2	2.2	36.1						
Yellow	3.0	3.0	4.0	3.0	0.0	4.0						
Red	0.5	0.5	2.0	0.0	0.0	1.5						



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	7	4	3	8
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	4.5	50.1	9.9	55.5	6.2	41.6	8.4	43.8
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.0	6.0	3.0	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	2.6	5.1	2.6	5.1
Queue Clearance Time (g_s), s	2.5		6.5		4.1	11.5	5.7	11.1
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	5.7	0.0	5.8
Phase Call Probability	0.35		0.98		0.79	1.00	0.93	1.00
Max Out Probability	1.00		1.00		0.01	0.06	0.06	0.04

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	14	88		131	184		51	408	81	89	209	206
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1706		1810	1678		1810	1795	1610	1711	1885	1849
Queue Service Time (g_s), s	0.5	3.6		4.5	7.5		2.1	9.5	3.9	3.7	9.0	9.1
Cycle Queue Clearance Time (g_c), s	0.5	3.6		4.5	7.5		2.1	9.5	3.9	3.7	9.0	9.1
Green Ratio (*g/C*)	0.41	0.40		0.48	0.45		0.35	0.32	0.32	0.38	0.34	0.34
Capacity (*c*), veh/h	519	684		661	754		358	1162	521	371	647	635
Volume-to-Capacity Ratio (*X*)	0.027	0.129		0.198	0.244		0.143	0.351	0.155	0.240	0.323	0.325
Back of Queue (*Q*), ft/ln (95 th percentile)	9.6	67.7		82	137.9		39.5	189.4	71.4	70.7	191.4	189.3
Back of Queue (*Q*), veh/ln (95 th percentile)	0.4	2.7		3.3	5.4		1.6	7.5	2.9	2.7	7.6	7.5
Queue Storage Ratio (*RQ*) (95 th percentile)	0.02	0.00		0.27	0.00		0.15	0.00	0.42	0.20	0.00	0.00
Uniform Delay (d_1), s/veh	19.3	20.8		16.4	18.7		24.1	28.4	26.5	22.7	26.7	26.7
Incremental Delay (d_2), s/veh	0.0	0.4		0.1	0.8		0.1	0.8	0.6	0.1	1.3	1.4
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	19.3	21.2		16.4	19.5		24.1	29.2	27.1	22.8	28.0	28.0
Level of Service (LOS)	B	C		B	B		C	C	C	C	C	C
Approach Delay, s/veh / LOS	20.9	C		18.2	B		28.4	C		27.1	C	
Intersection Delay, s/veh / LOS	25.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.27	B	1.93	B	1.92	B
Bicycle LOS Score / LOS	0.66	A	1.01	A	0.93	A	0.90	A

HCS7 Two-Way Stop-Control Report

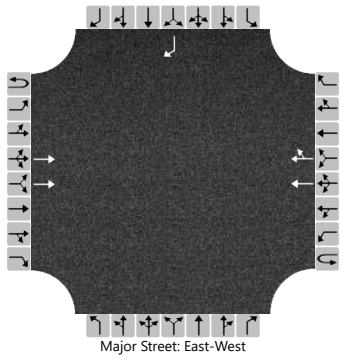
General Information

Analyst	MP
Agency/Co.	Lee Engineering
Date Performed	10/10/2022
Analysis Year	2023
Time Analyzed	1 Hour
Intersection Orientation	East-West
Project Description	Build-Out Year - Build Total AM Peak

Site Information

Intersection	Gibson & Site Driveway B
Jurisdiction	CABQ
East/West Street	Gibson Blvd
North/South Street	Site Driveway B
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	0	0		0	0	1
Configuration			T				T	TR								R
Volume (veh/h)			325				129	37								133
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																6.9
Critical Headway (sec)																6.96
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																145
Capacity, c (veh/h)																946
v/c Ratio																0.15
95% Queue Length, Q_{95} (veh)																0.5
Control Delay (s/veh)																9.5
Level of Service (LOS)																A
Approach Delay (s/veh)													9.5			
Approach LOS													A			

HCS7 Two-Way Stop-Control Report

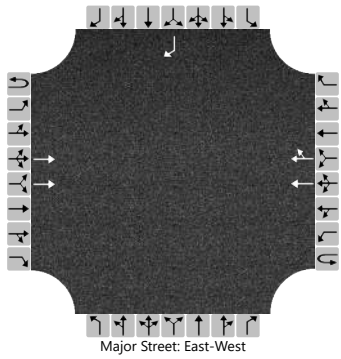
General Information

Analyst	MP
Agency/Co.	Lee Engineering
Date Performed	10/10/2022
Analysis Year	2022
Time Analyzed	1 Hour
Intersection Orientation	East-West
Project Description	Build-Out Year - Build Total PM Peak

Site Information

Intersection	Gibson & Site Driveway B
Jurisdiction	CABQ
East/West Street	Gibson Blvd
North/South Street	Site Driveway B
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	0	0		0	0	1
Configuration			T				T	TR								R
Volume (veh/h)			153				221	32								113
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																6.9
Critical Headway (sec)																6.96
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																123
Capacity, c (veh/h)																883
v/c Ratio																0.14
95% Queue Length, Q_{95} (veh)																0.5
Control Delay (s/veh)																9.7
Level of Service (LOS)																A
Approach Delay (s/veh)													9.7			
Approach LOS													A			

HCS7 Two-Way Stop-Control Report

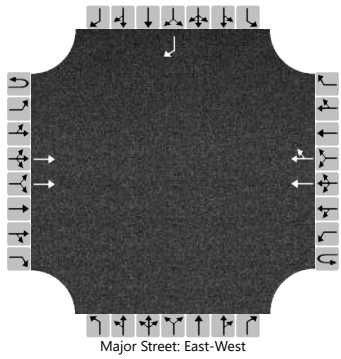
General Information

Analyst	MP
Agency/Co.	Lee Engineering
Date Performed	10/10/2022
Analysis Year	2033
Time Analyzed	1 Hour
Intersection Orientation	East-West
Project Description	Horizon Year - Build Total AM Peak

Site Information

Intersection	Gibson & Site Driveway B
Jurisdiction	CABQ
East/West Street	Gibson Blvd
North/South Street	Site Driveway B
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	0	0		0	0	1
Configuration			T				T	TR								R
Volume (veh/h)			354				143	37								133
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized														No		
Median Type | Storage			Undivided													

Critical and Follow-up Headways

Base Critical Headway (sec)																6.9
Critical Headway (sec)																6.96
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																145
Capacity, c (veh/h)																936
v/c Ratio																0.15
95% Queue Length, Q_{95} (veh)																0.5
Control Delay (s/veh)																9.5
Level of Service (LOS)																A
Approach Delay (s/veh)														9.5		
Approach LOS														A		

HCS7 Two-Way Stop-Control Report

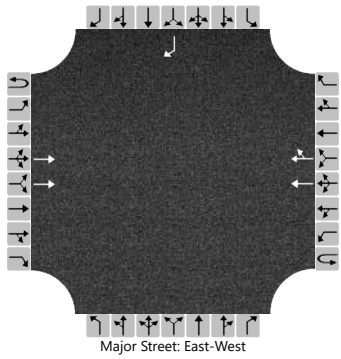
General Information

Analyst	MP
Agency/Co.	Lee Engineering
Date Performed	10/10/2022
Analysis Year	2033
Time Analyzed	1 Hour
Intersection Orientation	East-West
Project Description	Horizon Year - Build Total AM Peak

Site Information

Intersection	Gibson & Site Driveway B
Jurisdiction	CABQ
East/West Street	Gibson Blvd
North/South Street	Site Driveway B
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	0	0		0	0	1
Configuration			T				T	TR								R
Volume (veh/h)			166				243	32								113
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

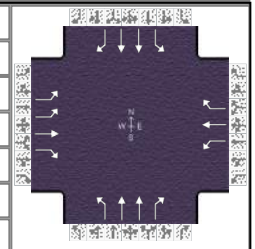
Base Critical Headway (sec)																6.9
Critical Headway (sec)																6.96
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																123
Capacity, c (veh/h)																867
v/c Ratio																0.14
95% Queue Length, Q_{95} (veh)																0.5
Control Delay (s/veh)																9.8
Level of Service (LOS)																A
Approach Delay (s/veh)													9.8			
Approach LOS													A			

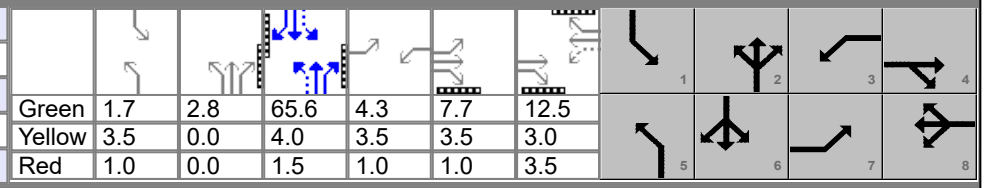
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 10, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Gibson & Unser	File Name	01 Gibson & Unser Existing AM.xus		
Project Description	Existing AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	414	20	88	53	39	41	88	691	22	24	598	130

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.7	2.8	65.6	4.3	7.7	12.5						
Yellow	3.5	0.0	4.0	3.5	3.5	3.0						
Red	1.0	0.0	1.5	1.0	1.0	3.5						

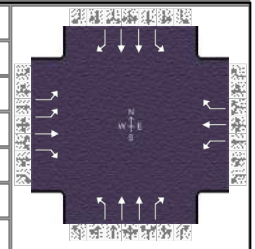
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	21.0	31.2	8.8	19.0	8.9	73.8	6.2	71.1
Change Period, ($Y+R_c$), s	4.5	6.5	4.5	6.5	4.5	5.5	4.5	5.5
Max Allow Headway (*MAH*), s	3.1	3.3	2.6	3.3	2.6	0.0	2.6	0.0
Queue Clearance Time (g_s), s	15.8	7.6	5.2	4.9	4.6		2.8	
Green Extension Time (g_e), s	0.7	0.4	0.0	0.4	0.1	0.0	0.0	0.0
Phase Call Probability	1.00	1.00	0.83	1.00	0.95		0.55	
Max Out Probability	0.03	0.00	0.01	0.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	414	20	88	53	39	41	88	691	22	24	598	130
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900		1781	1856		1781	1766		1697	1766	
Queue Service Time (g_s), s	13.8	1.0		3.2	2.3		2.6	12.6		0.8	11.1	
Cycle Queue Clearance Time (g_c), s	13.8	1.0		3.2	2.3		2.6	12.6		0.8	11.1	
Green Ratio (*g/C*)	0.14	0.21		0.14	0.10		0.59	0.57		0.56	0.55	
Capacity (*c*), veh/h	483	391		269	193		498	2012		404	1930	
Volume-to-Capacity Ratio (*X*)	0.857	0.051		0.197	0.202		0.177	0.343		0.059	0.310	
Back of Queue (*Q*), ft/ln (95 th percentile)	264.1	21.3		64.2	49.5		45.4	220.4		13.5	202.1	
Back of Queue (*Q*), veh/ln (95 th percentile)	10.6	0.9		2.5	1.9		1.8	8.6		0.5	7.9	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.83	0.00		0.92	0.00		0.10	0.00		0.05	0.00	
Uniform Delay (d_1), s/veh	50.6	38.2		45.7	49.2		11.4	13.8		12.4	14.9	
Incremental Delay (d_2), s/veh	5.8	0.0		0.1	0.2		0.1	0.5		0.0	0.4	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	56.4	38.3	0.0	45.9	49.4	0.0	11.5	14.3	0.0	12.4	15.3	0.0
Level of Service (LOS)	E	D	A	D	D	A	B	B	A	B	B	A
Approach Delay, s/veh / LOS	46.2	D		32.8	C		13.6	B		12.5	B	
Intersection Delay, s/veh / LOS	22.1						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.46	B	2.47	B	2.08	B	2.26	B
Bicycle LOS Score / LOS	1.35	A	0.71	A	1.15	A	1.11	A

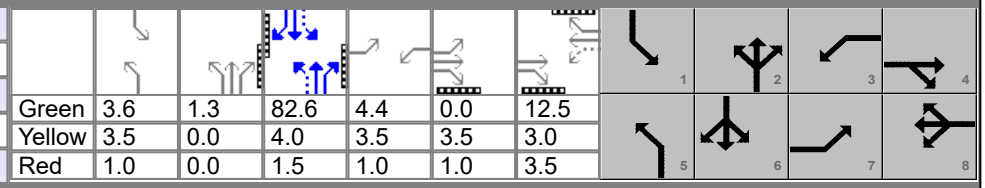
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 10, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Gibson & Unser	File Name	02 Gibson & Unser Existing PM.xus		
Project Description	Existing PM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	185	22	73	50	16	29	115	469	54	73	649	330

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.6	1.3	82.6	4.4	0.0	12.5						
Yellow	3.5	0.0	4.0	3.5	3.5	3.0						
Red	1.0	0.0	1.5	1.0	1.0	3.5						

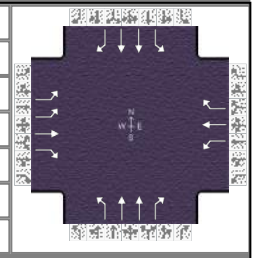
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	13.4	23.6	8.9	19.0	9.5	89.4	8.1	88.1
Change Period, ($Y+R_c$), s	4.5	6.5	4.5	6.5	4.5	5.5	4.5	5.5
Max Allow Headway (*MAH*), s	3.1	3.3	2.6	3.3	2.6	0.0	2.6	0.0
Queue Clearance Time (g_s), s	8.8	7.4	5.2	4.2	4.9		3.8	
Green Extension Time (g_e), s	0.1	0.3	0.0	0.3	0.1	0.0	0.1	0.0
Phase Call Probability	1.00	1.00	0.84	1.00	0.98		0.93	
Max Out Probability	0.49	0.00	0.00	0.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	185	22	73	50	16	29	115	469	54	73	649	330
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1743	1900		1810	1811		1795	1795		1810	1795	
Queue Service Time (g_s), s	6.8	1.3		3.2	1.0		2.9	6.9		1.8	10.5	
Cycle Queue Clearance Time (g_c), s	6.8	1.3		3.2	1.0		2.9	6.9		1.8	10.5	
Green Ratio (*g/C*)	0.07	0.13		0.13	0.10		0.67	0.65		0.66	0.64	
Capacity (*c*), veh/h	239	250		252	175		561	2317		647	2281	
Volume-to-Capacity Ratio (*X*)	0.774	0.088		0.198	0.092		0.205	0.202		0.113	0.285	
Back of Queue (*Q*), ft/ln (95 th percentile)	141.9	28.5		65.8	22.7		48.7	121.4		31.1	185.6	
Back of Queue (*Q*), veh/ln (95 th percentile)	5.6	1.1		2.6	0.9		1.9	4.8		1.2	7.4	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.44	0.00		0.94	0.00		0.11	0.00		0.10	0.00	
Uniform Delay (d_1), s/veh	59.6	49.6		50.6	53.5		7.9	9.4		7.9	10.6	
Incremental Delay (d_2), s/veh	4.5	0.1		0.1	0.1		0.1	0.2		0.0	0.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	64.0	49.7	0.0	50.7	53.6	0.0	8.0	9.6	0.0	7.9	10.9	0.0
Level of Service (LOS)	E	D	A	D	D	A	A	A	A	A	B	A
Approach Delay, s/veh / LOS	46.2	D		35.7	D		8.5	A		7.3	A	
Intersection Delay, s/veh / LOS	14.2						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.47	B	2.47	B	2.07	B	2.24	B
Bicycle LOS Score / LOS	0.95	A	0.64	A	1.01	A	1.36	A

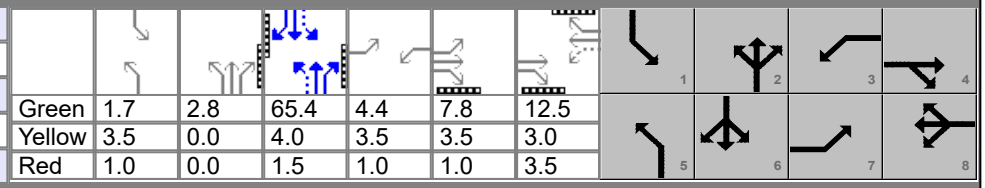
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 10, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2023	Analysis Period	1> 7:00
Intersection	Gibson & Unser	File Name	03 Gibson & Unser Build-Out Background AM.xus		
Project Description	Buil-Out Background AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	418	20	89	54	39	41	89	689	22	24	604	131

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.7	2.8	65.4	4.4	7.8	12.5						
Yellow	3.5	0.0	4.0	3.5	3.5	3.0						
Red	1.0	0.0	1.5	1.0	1.0	3.5						

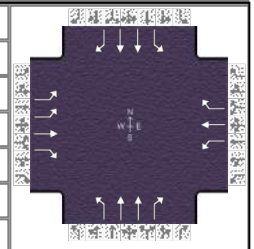
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	21.1	31.3	8.9	19.0	9.0	73.7	6.2	70.9
Change Period, ($Y+R_c$), s	4.5	6.5	4.5	6.5	4.5	5.5	4.5	5.5
Max Allow Headway (*MAH*), s	3.1	3.3	2.6	3.3	2.6	0.0	2.6	0.0
Queue Clearance Time (g_s), s	16.0	7.7	5.2	4.9	4.6		2.8	
Green Extension Time (g_e), s	0.7	0.4	0.0	0.4	0.1	0.0	0.0	0.0
Phase Call Probability	1.00	1.00	0.83	1.00	0.95		0.55	
Max Out Probability	0.03	0.00	0.01	0.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	418	20	89	54	39	41	89	689	22	24	604	131
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900		1781	1856		1781	1766		1697	1766	
Queue Service Time (g_s), s	14.0	1.0		3.2	2.3		2.6	12.5		0.8	11.3	
Cycle Queue Clearance Time (g_c), s	14.0	1.0		3.2	2.3		2.6	12.5		0.8	11.3	
Green Ratio (*g/C*)	0.14	0.21		0.14	0.10		0.58	0.57		0.56	0.54	
Capacity (*c*), veh/h	487	392		270	193		494	2008		404	1925	
Volume-to-Capacity Ratio (*X*)	0.858	0.051		0.200	0.202		0.180	0.343		0.059	0.314	
Back of Queue (*Q*), ft/ln (95 th percentile)	266.5	21.3		65.3	49.5		46.2	220.3		13.6	204.6	
Back of Queue (*Q*), veh/ln (95 th percentile)	10.7	0.9		2.6	1.9		1.8	8.6		0.5	8.0	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.83	0.00		0.93	0.00		0.10	0.00		0.05	0.00	
Uniform Delay (d_1), s/veh	50.5	38.2		45.7	49.2		11.5	13.9		12.4	15.0	
Incremental Delay (d_2), s/veh	6.1	0.0		0.1	0.2		0.1	0.5		0.0	0.4	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	56.6	38.2	0.0	45.8	49.4	0.0	11.6	14.4	0.0	12.5	15.4	0.0
Level of Service (LOS)	E	D	A	D	D	A	B	B	A	B	B	A
Approach Delay, s/veh / LOS	46.3	D		32.8	C		13.6	B		12.7	B	
Intersection Delay, s/veh / LOS	22.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.46	B	2.47	B	2.08	B	2.26	B
Bicycle LOS Score / LOS	1.36	A	0.71	A	1.15	A	1.11	A

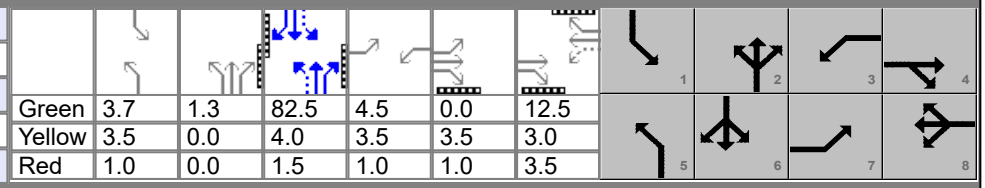
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 10, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2023	Analysis Period	1> 17:00
Intersection	Gibson & Unser	File Name	04 Gibson & Unser Build-Out Background PM.xus		
Project Description	Build-Out Background PM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	187	22	74	51	16	29	116	474	55	74	655	333

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.7	1.3	82.5	4.5	0.0	12.5						
Yellow	3.5	0.0	4.0	3.5	3.5	3.0						
Red	1.0	0.0	1.5	1.0	1.0	3.5						

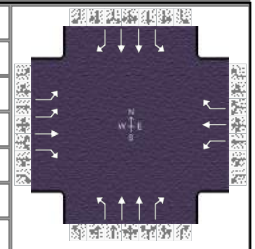
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	13.5	23.6	9.0	19.0	9.5	89.3	8.2	88.0
Change Period, ($Y+R_c$), s	4.5	6.5	4.5	6.5	4.5	5.5	4.5	5.5
Max Allow Headway (*MAH*), s	3.1	3.3	2.6	3.3	2.6	0.0	2.6	0.0
Queue Clearance Time (g_s), s	8.9	7.4	5.3	4.2	4.9		3.9	
Green Extension Time (g_e), s	0.1	0.3	0.0	0.3	0.1	0.0	0.1	0.0
Phase Call Probability	1.00	1.00	0.84	1.00	0.98		0.93	
Max Out Probability	0.54	0.00	0.00	0.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	187	22	74	51	16	29	116	474	55	74	655	333
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1743	1900		1810	1811		1795	1795		1810	1795	
Queue Service Time (g_s), s	6.9	1.3		3.3	1.0		2.9	7.0		1.9	10.6	
Cycle Queue Clearance Time (g_c), s	6.9	1.3		3.3	1.0		2.9	7.0		1.9	10.6	
Green Ratio (*g/C*)	0.07	0.13		0.13	0.10		0.67	0.64		0.66	0.63	
Capacity (*c*), veh/h	241	249		254	175		558	2314		644	2277	
Volume-to-Capacity Ratio (*X*)	0.776	0.088		0.201	0.092		0.208	0.205		0.115	0.288	
Back of Queue (*Q*), ft/ln (95 th percentile)	144	28.5		67.1	22.7		49.3	123.3		31.6	188.2	
Back of Queue (*Q*), veh/ln (95 th percentile)	5.7	1.1		2.7	0.9		2.0	4.9		1.3	7.5	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.45	0.00		0.96	0.00		0.11	0.00		0.11	0.00	
Uniform Delay (d_1), s/veh	59.5	49.6		50.5	53.5		7.9	9.5		8.0	10.6	
Incremental Delay (d_2), s/veh	4.8	0.1		0.1	0.1		0.1	0.2		0.0	0.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	64.3	49.7	0.0	50.7	53.6	0.0	8.0	9.7	0.0	8.0	10.9	0.0
Level of Service (LOS)	E	D	A	D	D	A	A	A	A	A	B	A
Approach Delay, s/veh / LOS	46.3	D		35.9	D		8.5	A		7.3	A	
Intersection Delay, s/veh / LOS	14.3						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.47	B	2.47	B	2.07	B	2.24	B
Bicycle LOS Score / LOS	0.95	A	0.65	A	1.02	A	1.36	A

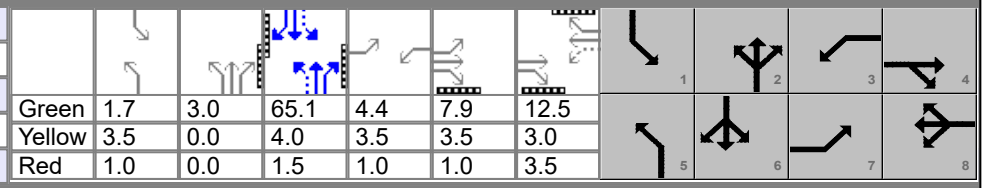
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 10, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2023	Analysis Period	1> 7:00
Intersection	Gibson & Unser	File Name	05 Gibson & Unser Build-Out Total AM.xus		
Project Description	Build-Out Total AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	422	20	94	54	39	41	94	698	22	24	604	135

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.7	3.0	65.1	4.4	7.9	12.5						
Yellow	3.5	0.0	4.0	3.5	3.5	3.0						
Red	1.0	0.0	1.5	1.0	1.0	3.5						

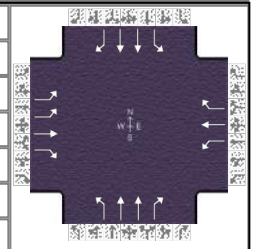
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	21.3	31.4	8.9	19.0	9.2	73.6	6.2	70.6
Change Period, ($Y+R_c$), s	4.5	6.5	4.5	6.5	4.5	5.5	4.5	5.5
Max Allow Headway (*MAH*), s	3.1	3.3	2.6	3.3	2.6	0.0	2.6	0.0
Queue Clearance Time (g_s), s	16.1	8.0	5.2	4.9	4.8		2.8	
Green Extension Time (g_e), s	0.7	0.4	0.0	0.4	0.1	0.0	0.0	0.0
Phase Call Probability	1.00	1.00	0.83	1.00	0.96		0.55	
Max Out Probability	0.04	0.00	0.01	0.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	422	20	94	54	39	41	94	698	22	24	604	135
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900		1781	1856		1781	1766		1697	1766	
Queue Service Time (g_s), s	14.1	1.0		3.2	2.3		2.8	12.8		0.8	11.3	
Cycle Queue Clearance Time (g_c), s	14.1	1.0		3.2	2.3		2.8	12.8		0.8	11.3	
Green Ratio (*g/C*)	0.14	0.21		0.14	0.10		0.59	0.57		0.56	0.54	
Capacity (*c*), veh/h	491	394		270	193		494	2004		399	1916	
Volume-to-Capacity Ratio (*X*)	0.859	0.051		0.200	0.202		0.190	0.348		0.060	0.315	
Back of Queue (*Q*), ft/ln (95 th percentile)	269	21.3		65.3	49.5		48.9	223.9		13.7	205.8	
Back of Queue (*Q*), veh/ln (95 th percentile)	10.8	0.9		2.6	1.9		1.9	8.7		0.5	8.0	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.84	0.00		0.93	0.00		0.11	0.00		0.05	0.00	
Uniform Delay (d_1), s/veh	50.5	38.1		45.7	49.2		11.6	14.0		12.6	15.2	
Incremental Delay (d_2), s/veh	6.3	0.0		0.1	0.2		0.1	0.5		0.0	0.4	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	56.8	38.1	0.0	45.8	49.4	0.0	11.6	14.5	0.0	12.6	15.6	0.0
Level of Service (LOS)	E	D	A	D	D	A	B	B	A	B	B	A
Approach Delay, s/veh / LOS	46.1	D		32.8	C		13.8	B		12.7	B	
Intersection Delay, s/veh / LOS	22.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.46	B	2.47	B	2.08	B	2.26	B
Bicycle LOS Score / LOS	1.37	A	0.71	A	1.16	A	1.12	A

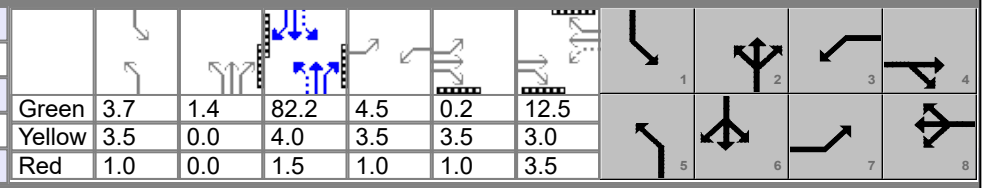
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 10, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2023	Analysis Period	1> 17:00
Intersection	Gibson & Unser	File Name	06 Gibson & Unser Build-Out Total PM.xus		
Project Description	Build-Out Total PM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	191	22	78	51	16	29	120	474	55	74	655	337

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.7	1.4	82.2	4.5	0.2	12.5						
Yellow	3.5	0.0	4.0	3.5	3.5	3.0						
Red	1.0	0.0	1.5	1.0	1.0	3.5						

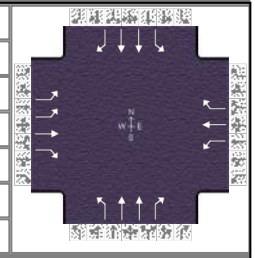
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	13.6	23.7	9.0	19.0	9.6	89.1	8.2	87.7
Change Period, ($Y+R_c$), s	4.5	6.5	4.5	6.5	4.5	5.5	4.5	5.5
Max Allow Headway (*MAH*), s	3.1	3.3	2.6	3.3	2.6	0.0	2.6	0.0
Queue Clearance Time (g_s), s	9.0	7.7	5.3	4.2	5.1		3.9	
Green Extension Time (g_e), s	0.1	0.3	0.0	0.3	0.1	0.0	0.1	0.0
Phase Call Probability	1.00	1.00	0.84	1.00	0.99		0.93	
Max Out Probability	0.65	0.00	0.00	0.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	191	22	78	51	16	29	120	474	55	74	655	337
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1743	1900		1810	1811		1795	1795		1810	1795	
Queue Service Time (g_s), s	7.0	1.3		3.3	1.0		3.1	7.1		1.9	10.7	
Cycle Queue Clearance Time (g_c), s	7.0	1.3		3.3	1.0		3.1	7.1		1.9	10.7	
Green Ratio (*g/C*)	0.07	0.13		0.13	0.10		0.67	0.64		0.66	0.63	
Capacity (*c*), veh/h	245	252		254	175		558	2309		643	2270	
Volume-to-Capacity Ratio (*X*)	0.780	0.087		0.201	0.092		0.215	0.205		0.115	0.289	
Back of Queue (*Q*), ft/ln (95 th percentile)	147.8	28.4		67.1	22.7		51.1	123.9		31.8	189.1	
Back of Queue (*Q*), veh/ln (95 th percentile)	5.9	1.1		2.7	0.9		2.0	4.9		1.3	7.5	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.46	0.00		0.96	0.00		0.11	0.00		0.11	0.00	
Uniform Delay (d_1), s/veh	59.4	49.5		50.5	53.5		8.0	9.5		8.0	10.7	
Incremental Delay (d_2), s/veh	5.4	0.1		0.1	0.1		0.1	0.2		0.0	0.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	64.8	49.6	0.0	50.7	53.6	0.0	8.1	9.7	0.0	8.1	11.1	0.0
Level of Service (LOS)	E	D	A	D	D	A	A	A	A	A	B	A
Approach Delay, s/veh / LOS	46.3	D		35.9	D		8.6	A		7.4	A	
Intersection Delay, s/veh / LOS	14.4						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.47	B	2.47	B	2.07	B	2.24	B
Bicycle LOS Score / LOS	0.97	A	0.65	A	1.02	A	1.37	A

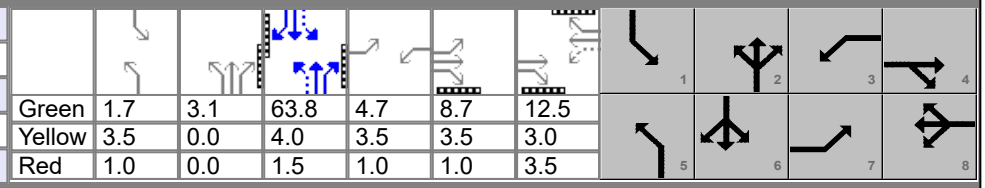
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 10, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2033	Analysis Period	1> 7:00
Intersection	Gibson & Unser	File Name	07 Gibson & Unser Horizon Background AM.xus		
Project Description	Horizon Background AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	455	22	97	58	43	45	97	760	24	26	658	143

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.7	3.1	63.8	4.7	8.7	12.5
Yellow	3.5	0.0	4.0	3.5	3.5	3.0
Red	1.0	0.0	1.5	1.0	1.0	3.5

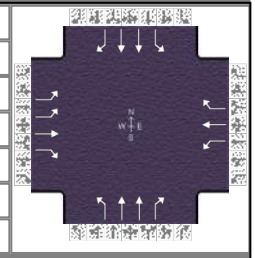
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	22.4	32.2	9.2	19.0	9.3	72.4	6.2	69.3
Change Period, (*Y+R c*), s	4.5	6.5	4.5	6.5	4.5	5.5	4.5	5.5
Max Allow Headway (*MAH*), s	3.1	3.3	2.6	3.3	2.6	0.0	2.6	0.0
Queue Clearance Time (*g s*), s	17.2	8.2	5.5	5.2	4.9		2.8	
Green Extension Time (*g e*), s	0.7	0.4	0.0	0.4	0.1	0.0	0.0	0.0
Phase Call Probability	1.00	1.00	0.86	1.00	0.96		0.58	
Max Out Probability	0.10	0.00	0.01	0.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	455	22	97	58	43	45	97	760	24	26	658	143
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900		1781	1856		1781	1766		1697	1766	
Queue Service Time (*g s*), s	15.2	1.1		3.5	2.6		2.9	14.6		0.8	12.9	
Cycle Queue Clearance Time (*g c*), s	15.2	1.1		3.5	2.6		2.9	14.6		0.8	12.9	
Green Ratio (*g/C*)	0.15	0.21		0.14	0.10		0.58	0.56		0.55	0.53	
Capacity (*c*), veh/h	523	407		274	193		461	1969		366	1878	
Volume-to-Capacity Ratio (*X*)	0.870	0.054		0.211	0.222		0.210	0.386		0.071	0.350	
Back of Queue (*Q*), ft/ln (95 th percentile)	290.3	23.2		70.1	54.7		51.9	249.7		15.3	228.8	
Back of Queue (*Q*), veh/ln (95 th percentile)	11.6	0.9		2.8	2.1		2.0	9.8		0.6	8.9	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.91	0.00		1.00	0.00		0.12	0.00		0.05	0.00	
Uniform Delay (*d 1*), s/veh	49.9	37.5		45.5	49.3		12.2	15.0		13.3	16.2	
Incremental Delay (*d 2*), s/veh	8.3	0.0		0.1	0.2		0.1	0.6		0.0	0.5	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	58.3	37.5	0.0	45.7	49.5	0.0	12.3	15.6	0.0	13.4	16.7	0.0
Level of Service (LOS)	E	D	A	D	D	A	B	B	A	B	B	A
Approach Delay, s/veh / LOS	47.6	D		32.7	C		14.8	B		13.7	B	
Intersection Delay, s/veh / LOS	23.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.46	B	2.47	B	2.09	B	2.26	B
Bicycle LOS Score / LOS	1.43	A	0.73	A	1.21	A	1.17	A

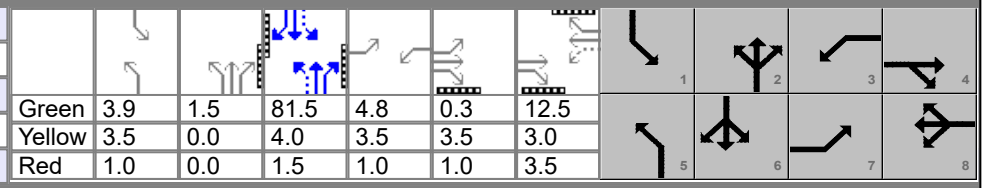
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 10, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2033	Analysis Period	1> 17:00
Intersection	Gibson & Unser	File Name	08 Gibson & Unser Horizon Background PM.xus		
Project Description	Horizon Background PM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	204	24	80	55	18	32	127	516	59	80	714	363

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.9	1.5	81.5	4.8	0.3	12.5
Yellow	3.5	0.0	4.0	3.5	3.5	3.0
Red	1.0	0.0	1.5	1.0	1.0	3.5

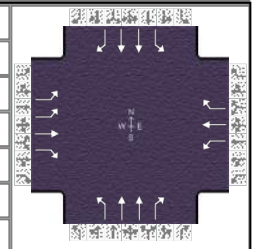
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	14.1	23.9	9.3	19.0	9.9	88.4	8.4	87.0
Change Period, ($Y+R_c$), s	4.5	6.5	4.5	6.5	4.5	5.5	4.5	5.5
Max Allow Headway (*MAH*), s	3.1	3.3	2.6	3.3	2.6	0.0	2.6	0.0
Queue Clearance Time (g_s), s	9.5	7.9	5.5	4.4	5.3		4.1	
Green Extension Time (g_e), s	0.1	0.3	0.0	0.3	0.1	0.0	0.1	0.0
Phase Call Probability	1.00	1.00	0.86	1.00	0.99		0.94	
Max Out Probability	1.00	0.00	0.00	0.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	204	24	80	55	18	32	127	516	59	80	714	363
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1743	1900		1810	1811		1795	1795		1810	1795	
Queue Service Time (g_s), s	7.5	1.4		3.5	1.2		3.3	7.9		2.1	12.0	
Cycle Queue Clearance Time (g_c), s	7.5	1.4		3.5	1.2		3.3	7.9		2.1	12.0	
Green Ratio (*g/C*)	0.07	0.13		0.13	0.10		0.67	0.64		0.66	0.63	
Capacity (*c*), veh/h	258	254		258	175		526	2290		615	2250	
Volume-to-Capacity Ratio (*X*)	0.792	0.095		0.213	0.103		0.242	0.225		0.130	0.317	
Back of Queue (*Q*), ft/ln (95 th percentile)	160.8	31		72.3	25.5		55.5	139.5		35.1	209.3	
Back of Queue (*Q*), veh/ln (95 th percentile)	6.4	1.2		2.9	1.0		2.2	5.5		1.4	8.3	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.50	0.00		1.03	0.00		0.12	0.00		0.12	0.00	
Uniform Delay (d_1), s/veh	59.2	49.4		50.4	53.6		8.4	10.0		8.3	11.3	
Incremental Delay (d_2), s/veh	7.3	0.1		0.2	0.1		0.1	0.2		0.0	0.4	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	66.5	49.5	0.0	50.5	53.7	0.0	8.5	10.2	0.0	8.3	11.7	0.0
Level of Service (LOS)	E	D	A	D	D	A	A	B	A	A	B	A
Approach Delay, s/veh / LOS	47.9	D		35.7	D		9.0	A		7.8	A	
Intersection Delay, s/veh / LOS	14.9						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.47	B	2.47	B	2.07	B	2.25	B
Bicycle LOS Score / LOS	1.00	A	0.66	A	1.07	A	1.44	A

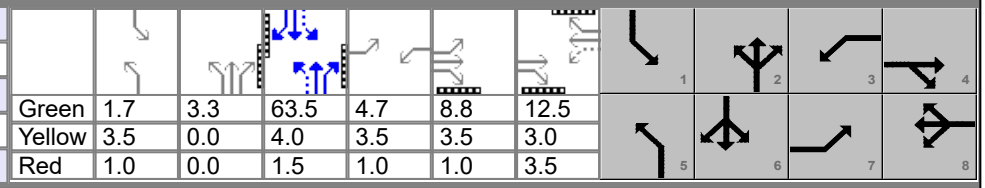
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 10, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2033	Analysis Period	1> 7:00
Intersection	Gibson & Unser	File Name	09 Gibson & Unser Horizon Total AM.xus		
Project Description	Horizon Total AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	459	22	102	58	43	45	102	760	24	26	658	147

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.7	3.3	63.5	4.7	8.8	12.5
Yellow	3.5	0.0	4.0	3.5	3.5	3.0
Red	1.0	0.0	1.5	1.0	1.0	3.5

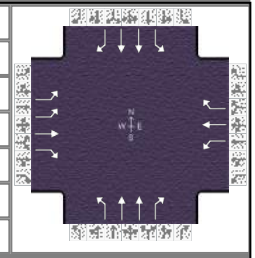
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	22.5	32.3	9.2	19.0	9.5	72.3	6.2	69.0
Change Period, ($Y+R_c$), s	4.5	6.5	4.5	6.5	4.5	5.5	4.5	5.5
Max Allow Headway (*MAH*), s	3.1	3.3	2.6	3.3	2.6	0.0	2.6	0.0
Queue Clearance Time (g_s), s	17.3	8.5	5.5	5.2	5.1		2.9	
Green Extension Time (g_e), s	0.7	0.4	0.0	0.4	0.1	0.0	0.0	0.0
Phase Call Probability	1.00	1.00	0.86	1.00	0.97		0.58	
Max Out Probability	0.11	0.00	0.01	0.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	459	22	102	58	43	45	102	760	24	26	658	147
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900		1781	1856		1781	1766		1697	1766	
Queue Service Time (g_s), s	15.3	1.1		3.5	2.6		3.1	14.6		0.9	12.9	
Cycle Queue Clearance Time (g_c), s	15.3	1.1		3.5	2.6		3.1	14.6		0.9	12.9	
Green Ratio (*g/C*)	0.15	0.22		0.14	0.10		0.58	0.56		0.54	0.53	
Capacity (*c*), veh/h	527	409		274	193		461	1965		365	1869	
Volume-to-Capacity Ratio (*X*)	0.871	0.054		0.211	0.222		0.221	0.387		0.071	0.352	
Back of Queue (*Q*), ft/ln (95 th percentile)	292.8	23.2		70.1	54.7		54.5	250.1		15.4	229.8	
Back of Queue (*Q*), veh/ln (95 th percentile)	11.7	0.9		2.8	2.1		2.1	9.8		0.6	9.0	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.91	0.00		1.00	0.00		0.12	0.00		0.05	0.00	
Uniform Delay (d_1), s/veh	49.9	37.4		45.5	49.3		12.3	15.1		13.5	16.4	
Incremental Delay (d_2), s/veh	8.6	0.0		0.1	0.2		0.1	0.6		0.0	0.5	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	58.5	37.4	0.0	45.7	49.5	0.0	12.4	15.6	0.0	13.5	16.9	0.0
Level of Service (LOS)	E	D	A	D	D	A	B	B	A	B	B	A
Approach Delay, s/veh / LOS	47.4	D		32.7	C		14.8	B		13.8	B	
Intersection Delay, s/veh / LOS	23.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.45	B	2.47	B	2.09	B	2.26	B
Bicycle LOS Score / LOS	1.45	A	0.73	A	1.22	A	1.17	A

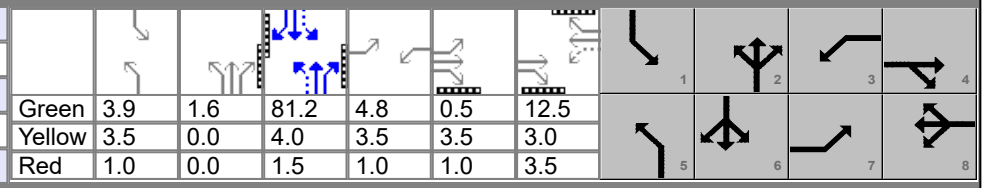
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 10, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2033	Analysis Period	1> 17:00
Intersection	Gibson & Unser	File Name	10 Gibson & Unser Horizon Total PM.xus		
Project Description	Horizon Total PM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	208	24	84	55	18	32	131	516	59	80	714	367

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.9	1.6	81.2	4.8	0.5	12.5						
Yellow	3.5	0.0	4.0	3.5	3.5	3.0						
Red	1.0	0.0	1.5	1.0	1.0	3.5						

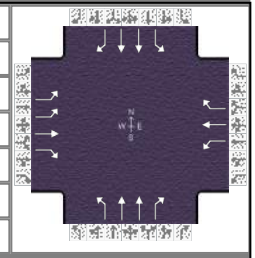
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	14.3	24.0	9.3	19.0	10.0	88.3	8.4	86.7
Change Period, ($Y+R_c$), s	4.5	6.5	4.5	6.5	4.5	5.5	4.5	5.5
Max Allow Headway (*MAH*), s	3.1	3.3	2.6	3.3	2.6	0.0	2.6	0.0
Queue Clearance Time (g_s), s	9.6	8.2	5.5	4.4	5.4		4.1	
Green Extension Time (g_e), s	0.1	0.3	0.0	0.3	0.1	0.0	0.1	0.0
Phase Call Probability	1.00	1.00	0.86	1.00	0.99		0.94	
Max Out Probability	1.00	0.00	0.00	0.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	208	24	84	55	18	32	131	516	59	80	714	367
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1743	1900		1810	1811		1795	1795		1810	1795	
Queue Service Time (g_s), s	7.6	1.4		3.5	1.2		3.4	7.9		2.1	12.1	
Cycle Queue Clearance Time (g_c), s	7.6	1.4		3.5	1.2		3.4	7.9		2.1	12.1	
Green Ratio (*g/C*)	0.08	0.13		0.13	0.10		0.67	0.64		0.65	0.62	
Capacity (*c*), veh/h	262	256		258	175		526	2285		614	2242	
Volume-to-Capacity Ratio (*X*)	0.795	0.094		0.213	0.103		0.249	0.226		0.130	0.318	
Back of Queue (*Q*), ft/ln (95 th percentile)	165	30.9		72.3	25.5		57.5	140.2		35.4	210.7	
Back of Queue (*Q*), veh/ln (95 th percentile)	6.5	1.2		2.9	1.0		2.3	5.6		1.4	8.4	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.52	0.00		1.03	0.00		0.13	0.00		0.12	0.00	
Uniform Delay (d_1), s/veh	59.1	49.3		50.4	53.6		8.5	10.0		8.4	11.4	
Incremental Delay (d_2), s/veh	7.9	0.1		0.2	0.1		0.1	0.2		0.0	0.4	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	67.0	49.4	0.0	50.5	53.7	0.0	8.6	10.2	0.0	8.4	11.8	0.0
Level of Service (LOS)	E	D	A	D	D	A	A	B	A	A	B	A
Approach Delay, s/veh / LOS	47.9	D		35.7	D		9.1	A		7.8	A	
Intersection Delay, s/veh / LOS	15.0						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.47	B	2.47	B	2.07	B	2.25	B
Bicycle LOS Score / LOS	1.01	A	0.66	A	1.07	A	1.45	A

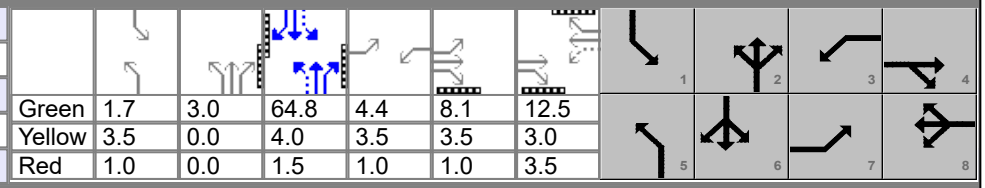
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 10, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2023	Analysis Period	1> 7:00
Intersection	Gibson & Unser	File Name	05 Gibson & Unser Build-Out Mitigated AM.xus		
Project Description	Build-Out Mitigated AM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	422	20	94	54	39	41	94	698	22	24	604	135

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.7	3.0	64.8	4.4	8.1	12.5
Yellow	3.5	0.0	4.0	3.5	3.5	3.0
Red	1.0	0.0	1.5	1.0	1.0	3.5

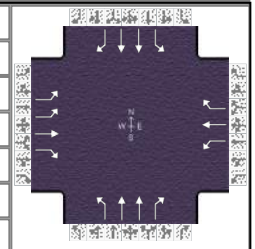
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	21.5	31.6	8.9	19.0	9.2	73.3	6.2	70.3
Change Period, ($Y+R_c$), s	4.5	6.5	4.5	6.5	4.5	5.5	4.5	5.5
Max Allow Headway (*MAH*), s	3.1	3.3	2.6	3.3	2.6	0.0	2.6	0.0
Queue Clearance Time (g_s), s	16.1	8.0	5.2	4.9	4.8		2.8	
Green Extension Time (g_e), s	1.0	0.4	0.0	0.4	0.1	0.0	0.0	0.0
Phase Call Probability	1.00	1.00	0.83	1.00	0.96		0.55	
Max Out Probability	0.00	0.00	0.00	0.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	422	20	94	54	39	41	94	698	22	24	604	135
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900		1781	1856		1781	1766		1697	1766	
Queue Service Time (g_s), s	14.1	1.0		3.2	2.3		2.8	12.8		0.8	11.4	
Cycle Queue Clearance Time (g_c), s	14.1	1.0		3.2	2.3		2.8	12.8		0.8	11.4	
Green Ratio (*g/C*)	0.14	0.21		0.14	0.10		0.58	0.57		0.55	0.54	
Capacity (*c*), veh/h	499	398		270	193		492	1997		398	1908	
Volume-to-Capacity Ratio (*X*)	0.846	0.050		0.200	0.202		0.191	0.350		0.060	0.317	
Back of Queue (*Q*), ft/ln (95 th percentile)	257.9	21.2		65.3	49.5		49.1	224.6		13.8	206.8	
Back of Queue (*Q*), veh/ln (95 th percentile)	10.3	0.8		2.6	1.9		1.9	8.8		0.5	8.1	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.81	0.00		0.93	0.00		0.11	0.00		0.05	0.00	
Uniform Delay (d_1), s/veh	50.2	37.9		45.7	49.2		11.7	14.1		12.7	15.3	
Incremental Delay (d_2), s/veh	1.6	0.0		0.1	0.2		0.1	0.5		0.0	0.4	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	51.8	37.9	0.0	45.8	49.4	0.0	11.7	14.6	0.0	12.8	15.8	0.0
Level of Service (LOS)	D	D	A	D	D	A	B	B	A	B	B	A
Approach Delay, s/veh / LOS	42.2	D		32.8	C		13.9	B		12.9	B	
Intersection Delay, s/veh / LOS	21.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.46	B	2.47	B	2.09	B	2.26	B
Bicycle LOS Score / LOS	1.37	A	0.71	A	1.16	A	1.12	A

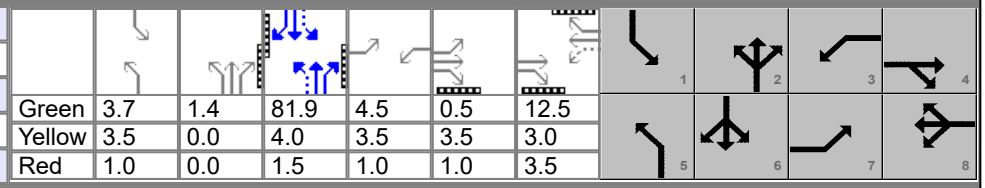
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Lee Engineering, LLC			Duration, h	1.000
Analyst	MP	Analysis Date	Oct 10, 2022	Area Type	Other
Jurisdiction	CABQ	Time Period	1 Hour	PHF	1.00
Urban Street	Gibson	Analysis Year	2023	Analysis Period	1> 17:00
Intersection	Gibson & Unser	File Name	06 Gibson & Unser Build-Out Mitigated PM.xus		
Project Description	Build-Out Total PM Peak				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	191	22	78	51	16	29	120	474	55	74	655	337

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.7	1.4	81.9	4.5	0.5	12.5						
Yellow	3.5	0.0	4.0	3.5	3.5	3.0						
Red	1.0	0.0	1.5	1.0	1.0	3.5						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	13.9	24.0	9.0	19.0	9.6	88.8	8.2	87.4
Change Period, ($Y+R_c$), s	4.5	6.5	4.5	6.5	4.5	5.5	4.5	5.5
Max Allow Headway (*MAH*), s	3.1	3.3	2.6	3.3	2.6	0.0	2.6	0.0
Queue Clearance Time (g_s), s	9.0	7.7	5.3	4.2	5.1		3.9	
Green Extension Time (g_e), s	0.4	0.3	0.0	0.3	0.1	0.0	0.1	0.0
Phase Call Probability	1.00	1.00	0.84	1.00	0.99		0.93	
Max Out Probability	0.00	0.00	0.00	0.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	191	22	78	51	16	29	120	474	55	74	655	337
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1743	1900		1810	1811		1795	1795		1810	1795	
Queue Service Time (g_s), s	7.0	1.3		3.3	1.0		3.1	7.1		1.9	10.7	
Cycle Queue Clearance Time (g_c), s	7.0	1.3		3.3	1.0		3.1	7.1		1.9	10.7	
Green Ratio (*g/C*)	0.36	0.13		0.13	0.10		0.67	0.64		0.66	0.63	
Capacity (*c*), veh/h	253	256		254	175		556	2301		640	2261	
Volume-to-Capacity Ratio (*X*)	0.756	0.086		0.201	0.092		0.216	0.206		0.116	0.290	
Back of Queue (*Q*), ft/ln (95 th percentile)	142	28.4		67.1	22.7		51.8	125.1		32.1	191	
Back of Queue (*Q*), veh/ln (95 th percentile)	5.6	1.1		2.7	0.9		2.1	5.0		1.3	7.6	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.44	0.00		0.96	0.00		0.12	0.00		0.11	0.00	
Uniform Delay (d_1), s/veh	59.2	49.3		50.5	53.5		8.1	9.6		8.2	10.9	
Incremental Delay (d_2), s/veh	1.8	0.1		0.1	0.1		0.1	0.2		0.0	0.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	60.9	49.3	0.0	50.7	53.6	0.0	8.2	9.8	0.0	8.2	11.2	0.0
Level of Service (LOS)	E	D	A	D	D	A	A	A	A	A	B	A
Approach Delay, s/veh / LOS	43.7	D		35.9	D		8.7	A		7.5	A	
Intersection Delay, s/veh / LOS	14.2						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.47	B	2.47	B	2.07	B	2.24	B
Bicycle LOS Score / LOS	0.97	A	0.65	A	1.02	A	1.37	A