TRAFFIC IMPACT STUDY

CARLISLE & I-40

Albuquerque, NM

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Executive Summary

Site Location and Study Area

The property that comprises the application area for the proposed development is approximately 3.66 acres in size and is identified as Bernalillo County Parcel Numbers 101605950603640205, 101605950106140215, and 101605951307040206 (Tract B & C, and a portion of Tract A, Indian Plaza, Unit 1). It is located on the northwest quadrant of the Carlisle Blvd/Indian School Rd intersection in Albuquerque, NM. It is zoned Mixed-Use – Low Intensity Zone District (MX-L) and is currently occupied by a vacant 54,019 SF building.

The study area is generally bounded by Carlisle Blvd to the east, Indian School Rd to the south, and a public alley to the north and west. The study area for the project includes intersections that could be affected by the proposed development:

- Indian School Rd / Carlisle Blvd
- Proposed Site Accesses

Description of Proposed Development

The Applicant, Maestas Development Group, seeks to redevelop the property with commercial uses consisting of a shopping plaza and a fast-food restaurant with a drive through and no indoor seating. Site access is proposed via one existing full movement access on Carlisle Blvd, one existing right-in/right-out (RIRO) access on Carlisle Blvd, and one existing full movement access on Indian School Rd. The full access movements on both Carlisle Blvd and Indian School Rd are located at the existing public alley location. The project will also utilize the existing public alley for two-way traffic circulation. One existing RIRO access on Indian School will be removed with the proposed project.

Conclusions and Recommendations

Conclusions

Based on the results of this traffic impact study, the following may be concluded:

- Under existing traffic conditions, the signalized intersection within the study area currently operates at overall levels of service (LOS) “D” during the weekday AM peak hour and LOS “E” during the PM peak hour.

- Under existing traffic conditions, the movements for the unsignalized intersections within the study area currently operate at overall LOS “C” or better during the weekday AM and PM peak hours with the exception of the eastbound and westbound left movements at the N Site Access/Carlisle Blvd intersection which operate at LOS “F” during the weekday AM and PM peak hours.

- Under existing traffic conditions, queues remain within their respective storage lengths with the exception of the eastbound and southbound left queues at the Indian School Rd/Carlisle Blvd intersection during the weekday AM and PM peak hours and the westbound left and right queues at the Indian School Rd/Carlisle Blvd intersection during the PM peak hour.

- Analysis of existing crash data did not identify specific areas of improvement coincident with the proposed development.

- Under background future 2026 and 2036 traffic conditions, without the development of the subject site, delays would increase slightly at study intersections due to regional traffic growth. The intersections are forecasted to operate consistent with existing conditions.

- In the background future 2026 and 2036 traffic conditions, queues are expected to remain consistent with existing conditions.

- The proposed site development would generate, upon completion and full occupancy, 178 net new weekday AM and 172 net new weekday PM peak hour vehicle trips as well as 2,117 net new weekday average daily trips.

- A comparison of the previously occupied use to the proposed use shows that the proposed use is forecasted to generate 76 greater AM weekday peak hour trips, 83 fewer PM weekday peak hour trips, and 549 fewer weekday average daily trips.

- Under total future 2026 and 2036 traffic conditions with development of the site, the signalized intersection within the study area would operate consistent with background conditions.

- Under total future 2026 and 2036 traffic conditions with development of the site, movements for the unsignalized intersections within the study area would operate generally consistent with background conditions with the exception of the southbound left movement at the Indian School/S Site Access intersection is forecasted to operate at LOS “F” during the PM peak hours with volume/capacity (V/C) ratios below 1.0 suggesting additional capacity available. These delays are typical for unsignalized left turn movements and are often over reported by the software. A review of peak hour signal warrants suggest that signal improvements would not be warranted.

Recommendations

- It is recommended that the Applicant provide access consistent with the site plan contained herein including:

    - Restriping southbound Carlilse Blvd along the property frontage to narrow the southbound drive lanes and provide a bike lane in conformance with the Mid-Region Council of Governments (MRCOG) Long Range Bikeway System plan. The narrowing of drive lanes will reduce vehicle speeds and improve safety of the roadway.

    - Modifications to the full access along Carlisle Blvd including 20’ flowline radius return on the southwest quadrant and associated modifications to the southern pedestrian ramp to align with the northern pedestrian ramp and revised return curb line. Both operational and safety analysis of this access indicate full movement should be supported.

    - Improvements to the RIRO access along Carlisle Blvd including shifting the access north and improved return radii of 25’, and RIRO channelizing island.

    - Existing sidewalk attached to curb along Carlisle Blvd to remain with no landscape buffer between curb and sidewalk due to existing light poles. Proposed bike lane will provide buffering between vehicles and pedestrians. Landscaping to be provided west of the sidewalk.

    - Closing existing RIRO access along Indian School Rd between the full movement access along Indian School Rd and the Indian School Rd/Carlisle Blvd intersection. This removes conflict points in the study area to improve safety.

- Modifications to full access on Indian School Rd including 15’ flowline radius return on the east portion of the access and associated modification to the eastern pedestrian ramp.

- Existing sidewalk attached to curb along Indian School Rd to remain with no landscape buffer between curb and sidewalk due to existing power poles & ROW constraints. Existing bike lane provides buffering between vehicles and pedestrians. Landscaping to be provided to the north of sidewalk.

I. Introduction

Overview

This report presents the results of a Traffic Impact Study (TIS) conducted in support of a site plan to redevelop the subject site with commercial uses consisting of a shopping plaza and a fast-food restaurant with a drive-through and no indoor seating in Albuquerque, NM. Currently the site is occupied by a vacant 54,019 SF building.

Per the requirements of the City of Alburquerque a Traffic Impact Study is required to support the proposed project.

Site Location and Study Area

The property that comprises the application area for the proposed development is approximately 3.66 acres in size and is identified as Bernalillo County Parcel Numbers 101605950603640205, 101605950106140215, and 101605951307040206 (Tract B & C, and a portion of Tract A, Indian Plaza, Unit 1). It is located on the northwest quadrant of the Carlisle Blvd/Indian School Rd intersection in Albuquerque, NM, as shown in Figure 1-1. It is zoned Mixed-Use – Low Intensity Zone District (MX-L) and is currently occupied by a vacant 54,019 SF building. Site access is proposed via one existing full movement access on Carlisle Blvd, one existing right-in/right-out (RIRO) access on Carlisle Blvd, and one existing full movement access on Indian School Rd. The full access movements on both Carlisle Blvd and Indian School Rd are located at the existing public alley location. The project will also utilize the existing public alley for two-way traffic circulation. One existing RIRO access on Indian School will be removed with the proposed project.

The Applicant, Maestas Development Group, seeks to develop the property with commercial uses consisting of a shopping plaza with a supermarket, and a fast-food restaurant with a drive through and no indoor seating. A reduction of the Applicant's proposed conceptual site plan is provided on Figure 1-2. A full-size copy of the plan is provided in Appendix A.

The study area is generally bounded by Carlisle Blvd to the east, Indian School Rd to the south, and a public alley to the north and west.

Tasks undertaken during this study included the following:

1. Reviewed the Applicant's proposed development plans and other background data.

2. Conducted a virtual field reconnaissance of existing roadway and intersection geometries, traffic controls, and speed limits.

3. Collected peak hour turning movement counts at the key intersections.

4. Analyzed existing levels of service at each of the key study intersections based on the methodologies set forth in the Highway Capacity Guidelines (HCM) 7th Edition and reports generated by Synchro as reported by Synchro version 12.

5. Forecasted background future traffic volumes based on baseline traffic counts and regional traffic growth for 2026 (build-out) and 2036 (horizon) conditions.

6. Calculated background levels of service at each of the key study intersections for the projected build-out years based on background future traffic forecasts, and the existing lane use and traffic controls.

7. Estimated the number of AM and PM peak hour trips that would be generated by the proposed use based on the Institute of Transportation Engineers (ITE) Trip Generation 11th Edition rates/equations and methodologies.

8. Prepared AM and PM peak hour total future traffic forecasts based on background traffic forecasts plus site traffic assignments for the 2026 (build-out), as well as 2036 (horizon) conditions.

9. Calculated total future levels of service for each of the key study intersections based on projected total future traffic forecasts, existing/future traffic controls and intersection geometries.

10. Identified roadway improvements required to accommodate future traffic volumes, as necessary.

Sources of data for this analysis included the Institute of Transportation Engineers (ITE), Trip Generation, 11th edition, the Highway Capacity Guidelines HCM 7th, Synchro 12, Maestas Development Group, City of Albuquerque, Bernalillo County, and the files/library of Galloway.

Site Description and Access

Site Conditions
The terrain proximate to and surrounding the site is generally classified as “level”.

Hazardous Conditions
Based on the field reconnaissance in the vicinity of the subject site, no hazardous features or constraints were identified.

Proposed Site Access
Access to the site is proposed via one existing full movement access on Carlisle Blvd, one existing right-in/right-out (RIRO) access on Carlisle Blvd, and one existing full movement access on Indian School Rd. The full access movements on both Carlisle Blvd and Indian School Rd are located at the existing public alley location. The project will also utilize the existing public alley for two-way traffic circulation. One existing RIRO access on Indian School will be removed with the proposed project.

Existing Zoning
The subject site is currently zoned Mixed Use – Low Intensity Zone District (MX-L) and is currently occupied by a vacant 54,019 SF building. Figure 1-3 depicts the existing zoning associated with the subject property, as well as neighboring properties as shown on the City of Albuquerque zoning map.

Nearby Uses
The properties surrounding the subject site are generally developed with commercial uses to the north, south, and east and developed with residential uses to the west.



FIGURE 1-1
SITE LOCATION

CARLISLE & I-40
ALBUQUERQUE, NM

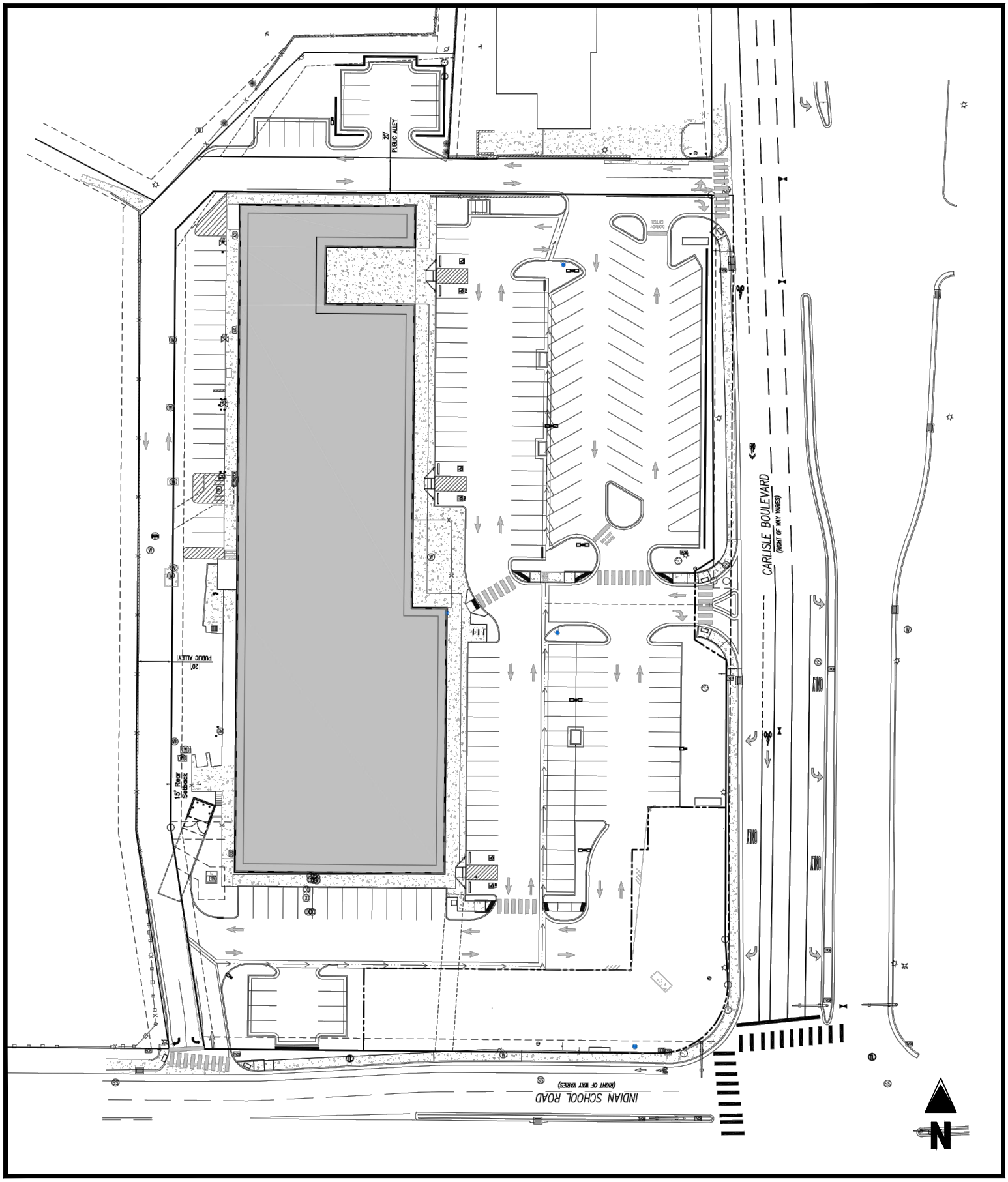


FIGURE 1-2
SITE PLAN

CARLISLE & I-40
ALBUQUERQUE, NM

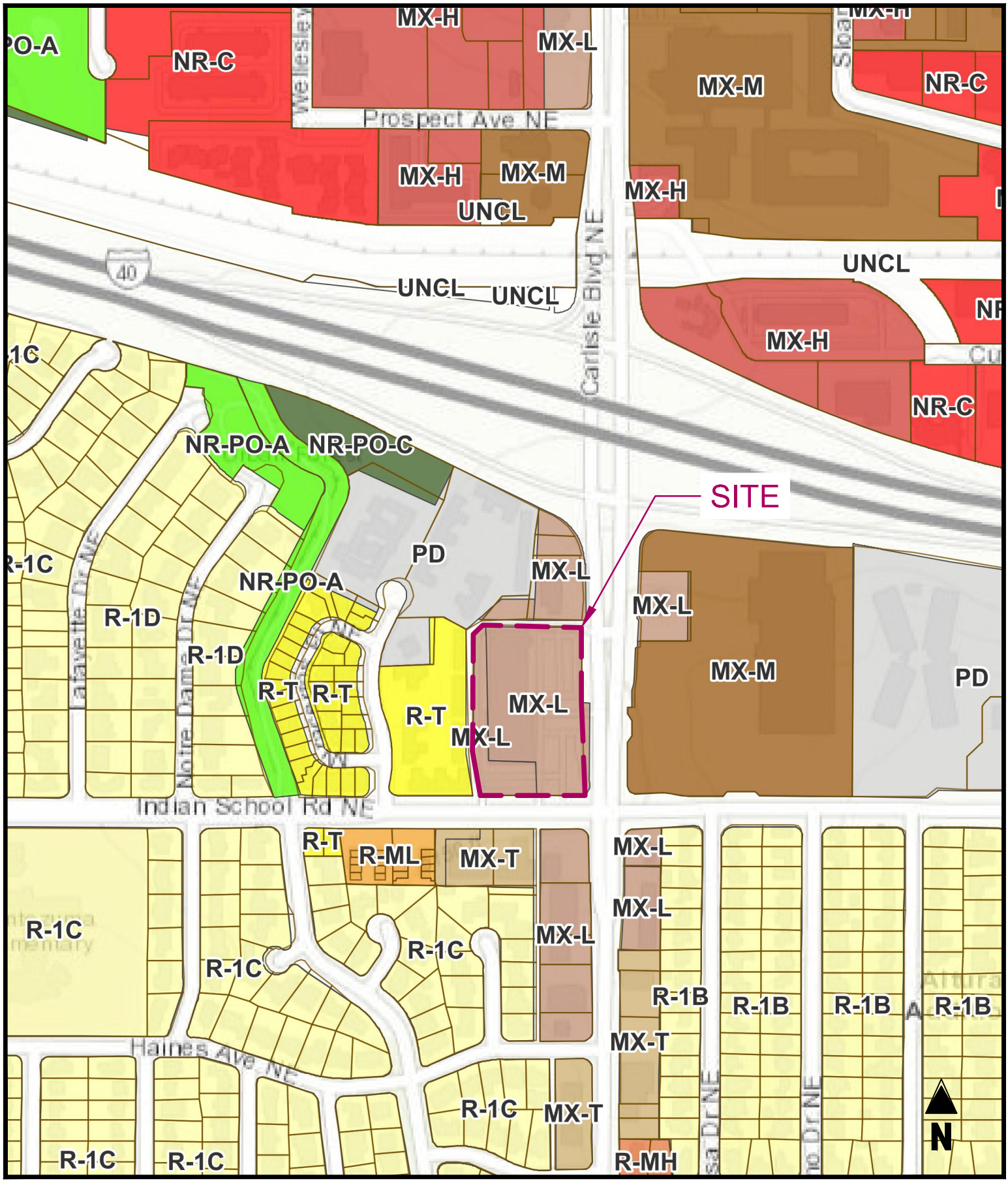


FIGURE 1-3
EXISTING ZONING

CARLISLE & I-40
ALBUQUERQUE, NM

II. Background Information

Study Area

The study area was determined by a review of intersections that would experience a significant portion of turning movement volumes generated by the site. As such, the traffic study focuses primarily on the following intersections:

Study Intersections

- Indian School Rd / Carlisle Blvd
- Proposed site accesses

The study intersections, as well as additional study assumptions were confirmed via a base assumptions form and subsequent conversations with Staff. The approved base assumptions form is provided as Appendix B.

Study Assumptions

For purposes of this analysis only, the proposed use was assumed to be built and occupied in one distinct phase. It was assumed that the use would be built and operational in the study year 2026. A horizon analysis of 2036 is also provided.

Study Methodology

Synchro software version 12 was used to evaluate levels of service at each of the study intersections during the weekday AM and PM peak hours. Synchro is a macroscopic model used for optimizing traffic signal timing and performing capacity analyses. The software can model existing traffic signal timings or optimize splits, offsets, and cycle lengths for individual intersections, an arterial, or a complete network. Synchro allows the user to evaluate the effects of changing intersection geometrics, traffic demands, traffic control, and/or traffic signal settings as well as optimize traffic signal timings.

The levels of service reported for the signalized and unsignalized intersections analyzed herein were taken from the Highway Capacity Manual (HCM) 7th and reports generated by Synchro. Level of service descriptions are included in Appendix C.

A default percent heavy vehicle (%HV) factor of 2% was used for all movements in the study area.

Existing Roadway Network

Regional access to the subject site is provided by Carlisle Blvd, and local access is provided via Indian School Rd. Figure 2-1 depicts existing lane use and traffic controls in the vicinity of the subject site. The following provides a description of each of the roadways within the study network.

Carlisle Rd

Carlisle Rd is constructed as a six-lane median divided section with turn lanes at major intersections. The posted speed limit is 35 mph in the vicinity of the subject site. The roadway functions as an Arterial and provides a north-south connection through the region. The intersection with Indian School Rd operates under signalized control.

Indian School Rd
Indian School Rd is constructed as a four-lane roadway with a posted speed limit of 35 mph in the vicinity of the subject site. The roadway functions as an Arterial and provides an east-west connection through the region. The intersection with Carlisle Blvd operated under signalized control.

Per the request of the New Mexico Department of Transportation (NMDOT), the spacing of accesses from the EB I-40 Ramps intersection is provided in Figure 2-2.

Crash Analysis

Crash data along Carlisle Blvd from south of Indian School Rd to the north of the WB I-40 Ramps from years 2017 through 2022 was provided by the NMDOT Traffic Safety Division and requested to be included within the TIS. This data was filtered and tabulated along the Carlisle Blvd corridor specifically Indian School Rd, RIRO Site Access/Carlisle Blvd, N Site Access, EB I-40 Ramps, and WB I-40 Ramps. No crashes were reported at the RIRO Site Access/Carlisle Blvd intersection. The crashes were classified based on year, type, lighting conditions, and severity. The classified crash data can be seen in Table 2-1 and the regions of which these crashes were reported are shown in Figure 2-3.

The N Site Access/Carlisle Blvd intersection was requested to be specifically analyzed by NMDOT. There has been one or fewer crashes per year at the N Site Access/Carlisle Blvd intersection which would indicate that there are no crash issues in that area.

Fatal Crashes
For all intersections throughout the five years there was one fatal crash at Indian School Rd/Carlisle Blvd which was unclassified but involved a sideswipe with a heavy commercial vehicle.

Bicycle Crashes
There was a total of three bicycle related crashes, two at the intersection of EB I-40 Ramps/Carlisle Blvd and one at the intersection of Indian School Rd/Carlisle Blvd. One of the bicycle related crashes at EB I-40/Carlisle Blvd was classified as “Vehicle Struck Pedalcyclist Head On” and reported one person having possible injuries. The other bicycle related crash at that intersection was left unclassified and reported one person having possible injuries. The crash at Indian School Rd/Carlisle Blvd was classified as “Pedalcyclist Struck Vehicle” and reported one person having minor injuries.

Pedestrian Crashes
There was a total of four pedestrian related crashes, one at the intersection of N Site Access/Carlisle Blvd and three at the intersection of Indian School Rd/Carlisle Blvd. The pedestrian related crash at the N Site Access intersection was classified as “Pedestrian Collision – Vehicle Turning Right” and reported one person with possible injuries. Of the three pedestrian related crashes at Indian School Rd/Carlisle Blvd one was classified “Pedestrian Collision – All Others and Not Known” and reported two people with possible injuries, one was classified “Pedestrian Collision – Vehicle Going Straight” and reported one person with suspected serious injuries and four people with possible injuries, and one crash was unclassified but occurred on a median in dark-lighted lighting conditions and reported one person with suspected minor injuries.

The crash documentation given is not thorough enough for a full engineering crash analysis as the information is vague, but the analysis provided does not show any problem areas along this corridor. The full detailed crash data can be seen in Appendix D.

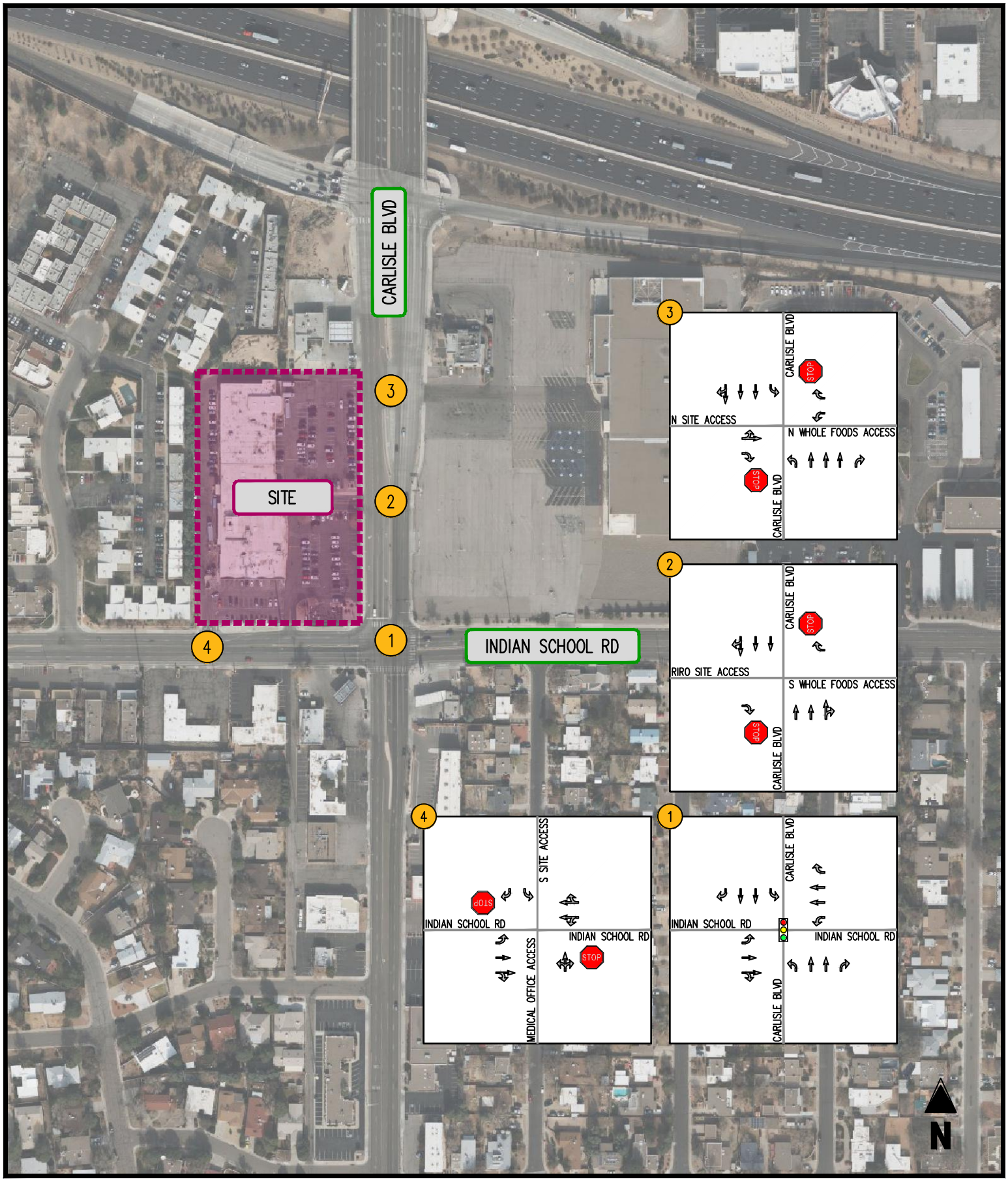


FIGURE 2-1
EXISTING LANE USE AND TRAFFIC CONTROL

CARLISLE & I-40
ALBUQUERQUE, NM

MOVEMENT
SIGNALIZED INTERSECTION
STOP STOP SIGN
YIELD SIGN



FIGURE 2-2
ACCESS SPACING

CARLISLE & I-40
ALBUQUERQUE, NM

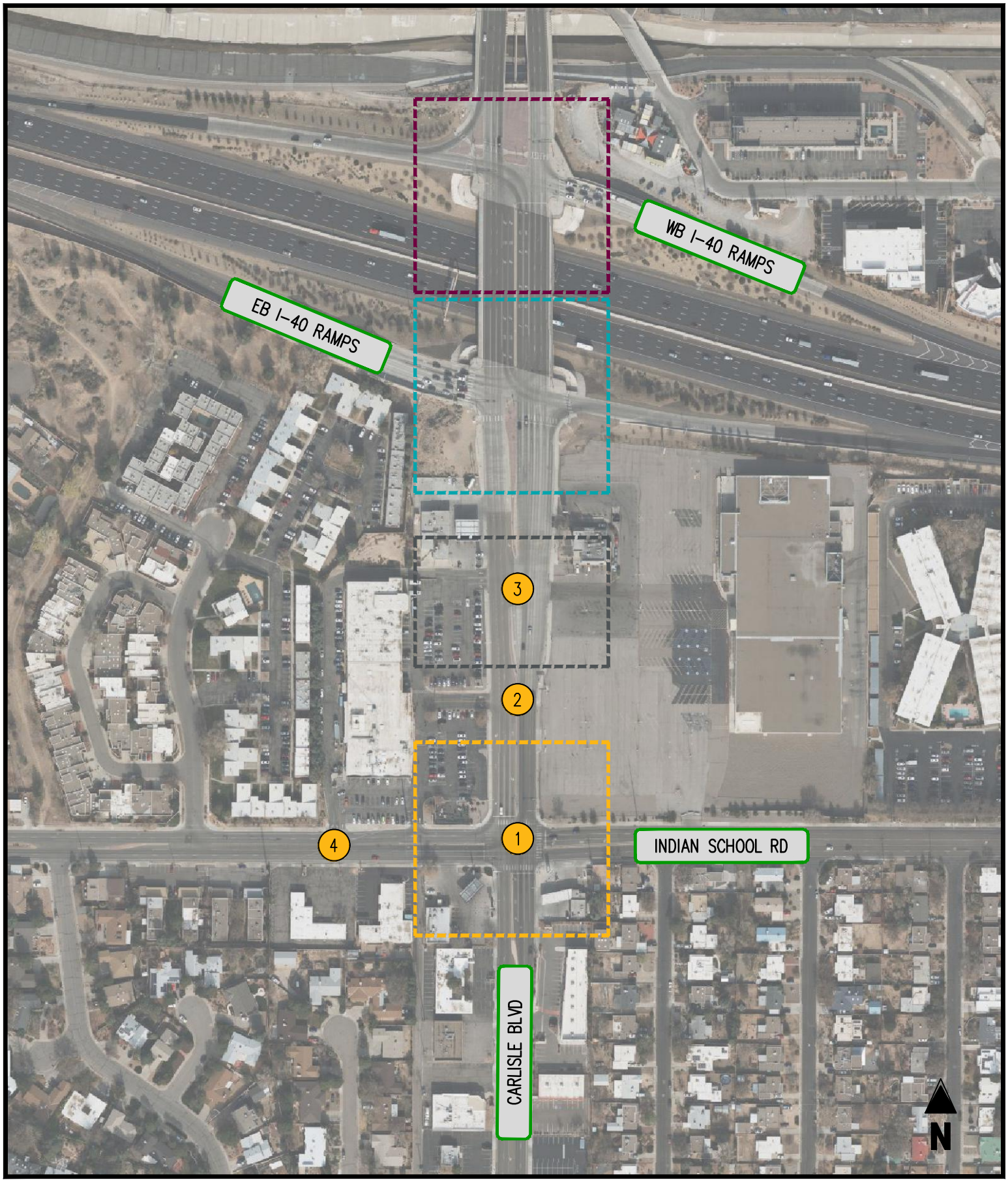


FIGURE 2-3
CRASH DATA REGIONS

CARLISLE & I-40
ALBUQUERQUE, NM

WB I–40 RAMPS & CARLISLE BLVD
EB I–40 RAMPS & CARLISLE BLVD
N SITE ACCESS & CARLISLE BLVD
INDIAN SCHOOL RD & CARLISLE BLVD

Table 2-1
Carlisle & I-40 - Albuquerque, NM
Crash Analysis Data

		WB I-40 Ramps & Carlisle Blvd		EB I-40 Ramps & Carlisle Blvd		N Site Access & Carlisle Blvd		Indian School Rd & Carlisle Blvd		Total	
Total Crashes		85	23%	128	34%	5	1%	155	42%	373	100%
By Year	2017	16	19%	33	26%	1	20%	32	21%	82	22%
	2018	11	13%	18	14%	1	20%	29	19%	59	16%
	2019	15	18%	20	16%	1	20%	39	25%	75	20%
	2020	14	16%	10	8%	1	20%	15	10%	40	11%
	2021	18	21%	26	20%	-	-	22	14%	66	18%
	2022	11	13%	21	16%	1	20%	18	12%	51	14%
By Type	Fixed Object	3	4%	2	2%	-	-	4	3%	9	2%
	Other Object - All Other	-	-	1	1%	-	-	-	-	1	0.3%
	Other Object - Unknown/Not Stated	-	-	1	1%	-	-	1	1%	2	1%
	Other Vehicle - All Others/Entering At Angle	-	-	-	-	-	-	4	3%	4	1%
	Other Vehicle - Both Going Straight/Entering At Angle	5	6%	9	7%	-	-	13	8%	27	7%
	Other Vehicle - Both Turn Left/Entering At Angle	1	1%	-	-	-	-	2	1%	3	1%
	Other Vehicle - Both Turn Right/Entering At Angle	-	-	3	2%	-	-	-	-	3	1%
	Other Vehicle - From Opposite Direction	16	19%	13	10%	-	-	16	10%	45	12%
	Other Vehicle - From Opposite Direction/Both Going Straight	-	-	1	1%	-	-	1	1%	2	1%
	Other Vehicle - From Opposite Direction/One Left Turn	2	2%	3	2%	-	-	7	5%	12	3%
	Other Vehicle - From Opposite Direction/Sideswipe Collision	-	-	1	1%	-	-	1	1%	2	1%
	Other Vehicle - From Same Direction/All Others	-	-	-	-	-	-	1	1%	1	0.3%
	Other Vehicle - From Same Direction/Both Going Straight	4	5%	12	9%	-	-	12	8%	28	8%
	Other Vehicle - From Same Direction/Both Turn Right	-	-	1	1%	-	-	-	-	1	0.3%
	Other Vehicle - From Same Direction/One Left Turn	-	-	-	-	-	-	1	1%	1	0.3%
	Other Vehicle - From Same Direction/One Right Turn	-	-	-	-	-	-	1	1%	1	0.3%
	Other Vehicle - From Same Direction/One Stopped	1	1%	-	-	-	-	1	1%	2	1%
	Other Vehicle - From Same Direction/Rear End Collision	8	9%	3	2%	-	-	8	5%	19	5%
	Other Vehicle - From Same Direction/Sideswipe Collision	-	-	5	4%	-	-	-	-	5	1%
	Other Vehicle - One Left Turn/Entering At Angle	5	6%	12	9%	-	-	9	6%	26	7%
	Other Vehicle - One Right Turn/Entering At Angle	-	-	1	1%	-	-	3	2%	4	1%
	Other Vehicle - One Stopped/Entering At Angle	1	1%	-	-	-	-	-	-	1	0.3%
	Other Vehicle - One Vehicle/Making A U-Turn	1	1%	-	-	-	-	-	-	1	0.3%
	Other Vehicle - One Vehicle/Stalled In Traffic	-	-	-	-	-	-	1	1%	1	0.3%
	Other Vehicle - One Vehicle/Stopped Traffic	-	-	-	-	1	20%	-	-	1	0.3%
	Other Vehicle - Snow/Ice/Slush	-	-	-	-	-	-	1	1%	1	0.3%
	Pedalcyclist Struck Vehicle	-	-	-	-	-	-	1	1%	1	0.3%
	Pedestrian Collision	-	-	-	-	1	20%	2	1%	3	1%
	Rollover - On The Road	-	-	1	1%	-	-	-	-	1	0.3%
	Vehicle On Other Roadway - Not Stated	-	-	1	1%	-	-	-	-	1	0.3%
	Vehicle Struck Pedalcyclist Head On	-	-	1	1%	-	-	-	-	1	0.3%
	Invalid Code/Not Specified	38	45%	57	45%	3	60%	65	42%	163	44%
By Lighting Conditions	Daylight	47	55%	82	64%	4	80%	113	73%	246	66%
	Dawn/Dusk	5	6%	3	2%	-	-	8	5%	16	4%
	Dark	25	29%	30	23%	1	20%	26	17%	82	22%
	Invalid Code/Not Specified	8	9%	13	10%	-	-	8	5%	29	8%
By Severity	PDO	65	76%	101	79%	3	60%	106	68%	275	74%
	Injury	20	24%	27	21%	2	40%	48	31%	97	26%
	Fatality	-	-	-	-	-	-	1	1%	1	0.3%
Bicycle Related Crashes		-	-	2	2%	-	-	1	1%	3	1%
Pedestrian Related Crashes		-	-	-	-	1	20%	3	2%	4	1%

III. Analysis of Existing Conditions

Traffic Volumes

Weekday AM and PM peak hour traffic volumes counts were conducted on Wednesday April 17, 2024, from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM at the study intersections by All Traffic Data Services.

The existing volumes are summarized in Figure 3-1. Copies of traffic counts are included in Appendix D. Existing peak hour factors (PHF) were also computed by approach from the traffic counts and applied to the analysis with a minimum of 0.85 and a maximum of 0.92.

Operational Analysis

Capacity/level of service (LOS) analyses were conducted at the study intersections based on the existing lane use and traffic controls shown on Figure 2-1 and existing baseline vehicular traffic volumes shown on Figure 3-1. The capacity analysis results are presented in Appendix E and summarized in Table 3-1 and on Figure 3-2.

As shown on Table 3-1, the signalized intersection in the study area currently operates at overall levels of service (LOS) “D” in the weekday AM peak hour and LOS “E” in the weekday PM peak hour.

Movements for the unsignalized intersections within the study area currently operate at overall LOS “C” or better during the weekday AM and PM peak hours with the exception of the left turning movements for the side street approaches of the N Site Access/Carlisle Blvd intersection which operate at LOS “F” during the weekday AM and PM peak hours. A review of peak hour signal warrants suggest that signal improvements would not be warranted.

Existing Intersection Queues

An analysis of intersection 95th-percentile queues was performed at key locations. The results of the queuing analysis, as reported by Synchro, are summarized in Table 3-2. As shown in the table, queues are generally contained within their effective storage with the exception of the eastbound left and southbound left queues at the Indian School Rd/Carlisle Blvd intersection during the weekday AM and PM peak hours and the westbound left and westbound right queues at the Indian School Rd/Carlisle Blvd intersection during the weekday PM peak hour.

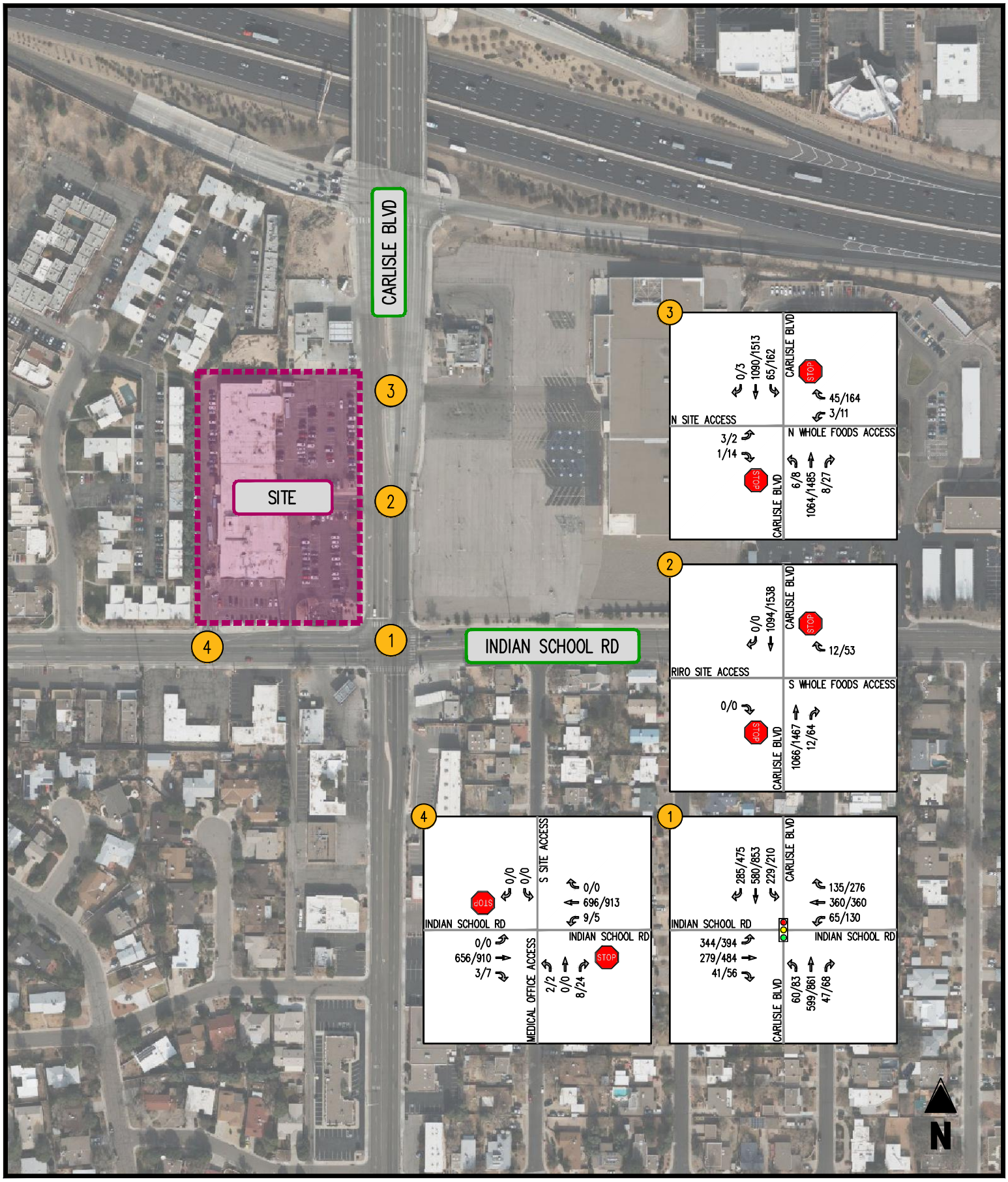


FIGURE 3-1
EXISTING VOLUMES

CARLISLE & I-40
ALBUQUERQUE, NM

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP STOP SIGN

YIELD SIGN

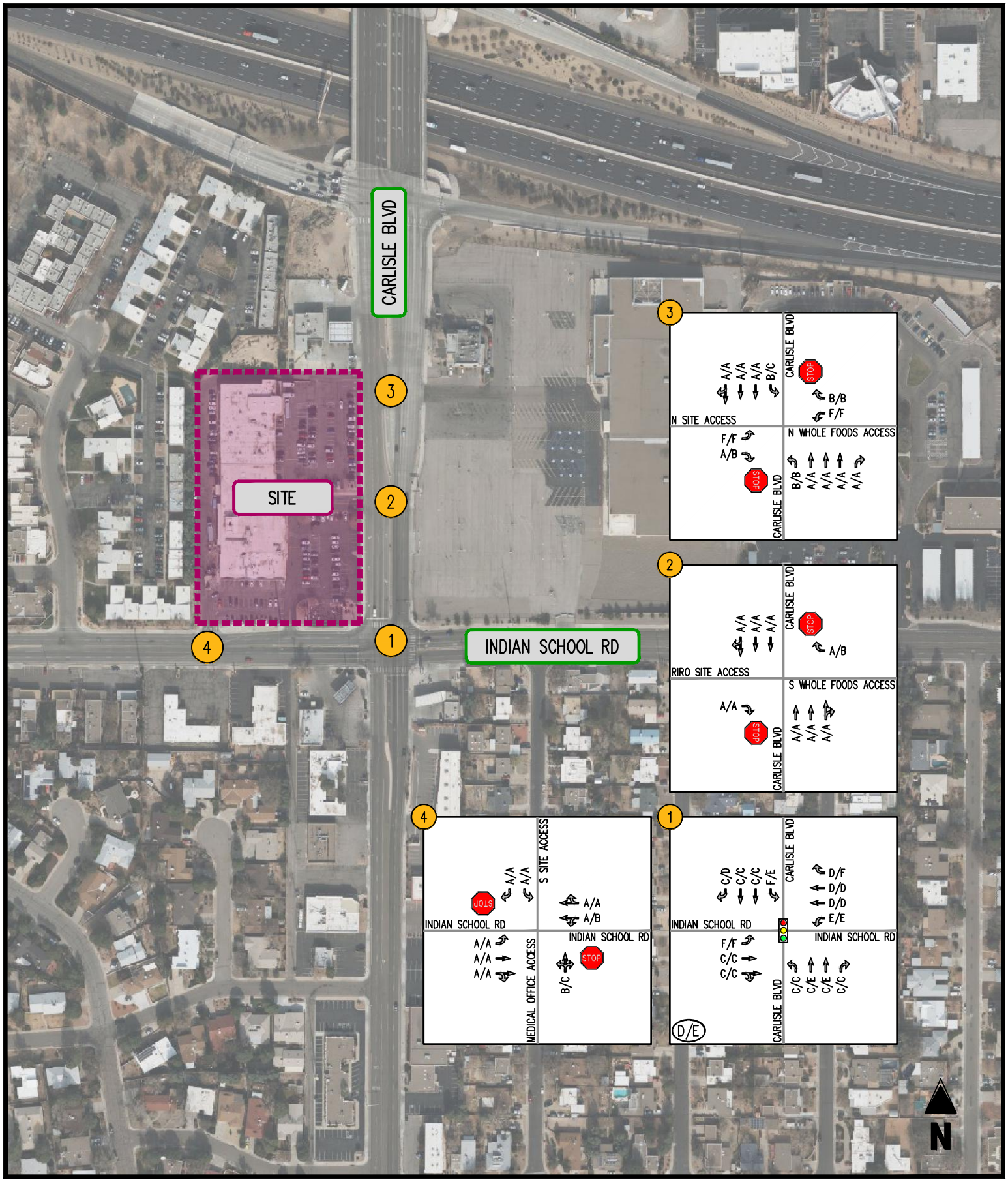


FIGURE 3-2
EXISTING LOS

CARLISLE & I-40
ALBUQUERQUE, NM

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP STOP SIGN

YIELD SIGN

Table 3-1
Carlisle & I-40 - Albuquerque, NM
Existing Intersection Level of Service Summary (1) (2)

Intersection	Operating Condition	Street Name	Approach/ Movement	Existing 2024 AM Peak Hour	Existing 2024 PM Peak Hour
1 Indian School Rd / Carlisle Blvd	SIGNAL	Indian School Rd	EBL	F (105.3)	F (117.9)
			EBTR	C (30.3)	C (33.5)
		Indian School Rd	WBL	E (56.9)	E (73.7)
			WBT	D (47.7)	D (44.4)
			WBR	D (47.5)	F (98.9)
		Carlisle Blvd	NBL	C (20.3)	C (29.6)
			NBT	C (28.2)	E (55.9)
			NBR	C (22.8)	C (32.8)
		Carlisle Blvd	SBL	F (182.8)	E (78.4)
			SBT	C (20.9)	C (34.1)
			SBR	C (22.7)	D (48.9)
		Overall		**D (50.7)**	**E (56.4)**
2 RIRO Site Access / Carlisle Blvd	STOP	RIRO Site Access	EBR	A [0.0]	A [0.0]
		S Whole Foods Access	WBR	A [9.7]	B [10.5]
		Carlisle Blvd	NBTR	A [0.0]	A [0.0]
		Carlisle Blvd	SBTR	A [0.0]	A [0.0]
3 N Site Access / Carlisle Blvd	STOP	N Site Access	EBL	F [61.8]	F [*]
			EBR	A [9.8]	B [10.2]
		N Whole Foods Access	WBL	F [57.5]	F [*]
			WBR	B [10.1]	B [12.4]
		Carlisle Blvd	NBL	B [11.2]	B [14.9]
			NBT	A [0.0]	A [0.0]
			NBR	A [0.0]	A [0.0]
		Carlisle Blvd	SBL	B [12.1]	C [18.8]
			SBTR	A [0.0]	A [0.0]
4 Indian School Rd / S Site Access	STOP	Indian School Rd	EBL	A [0.0]	A [0.0]
			EBTR	A [0.0]	A [0.0]
		Indian School Rd	WBLT	A [9.4]	B [10.3]
			WBTR	A [0.1]	A [0.1]
		Medical Office Access	NBLTR	B [13.0]	C [15.3]
		S Site Access	SBL	A [0.0]	A [0.0]
			SBR	A [0.0]	A [0.0]

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.
(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.
* Delay exceeds 300 seconds

Table 3-2
Carlisle & I-40 - Albuquerque, NM
Existing Intersection Queueing Summary (1)

Intersection	Operating Condition	Street Name	Approach/ Movement	Available Storage (Feet)	Existing 2024 AM Peak Hour	Existing 2024 PM Peak Hour
1 Indian School Rd / Carlisle Blvd	SIGNAL	Indian School Rd	EBL	300	477	576
			EBTR	-	136	255
		Indian School Rd	WBL	170	93	189
			WBT	-	178	198
			WBR	115	52	119
		Carlisle Blvd	NBL	120	51	69
			NBT	-	278	507
			NBR	150	0	0
		Carlisle Blvd	SBL	250	371	314
			SBT	-	248	413
			SBR	-	57	89
2 RIRO Site Access / Carlisle Blvd	STOP	RIRO Site Access	EBR	-	0	0
		S Whole Foods Access	WBR	-	2.5	7.5
		Carlisle Blvd	NBTR	-	0	0
		Carlisle Blvd	SBTR	-	0	0
3 N Site Access / Carlisle Blvd	STOP	N Site Access	EBL	-	5	15
			EBR	-	0	2.5
		N Whole Foods Access	WBL	-	5	52.5
			WBR	-	5	30
		Carlisle Blvd	NBL	120	0	2.5
			NBT	-	0	0
			NBR	120	0	0
		Carlisle Blvd	SBL	240	10	47.5
			SBTR	-	0	0
4 Indian School Rd / S Site Access	STOP	Indian School Rd	EBL	220	0	0
			EBTR	-	0	0
		Indian School Rd	WBLT	-	0	0
			WBTR	-	0	0
		Medical Office Access	NBLTR	-	2.5	7.5
		S Site Access	SBL	-	0	0
			SBR	-	0	0

Notes : (1) Queue length, in feet, is based on the 95th percentile queue as reported by Synchro, Version 12.

IV. Analysis of Future Conditions without Site Development

Methodology

The future traffic forecasts, without the proposed new use, were developed for 2026 and 2036 conditions based on a composite of existing baseline traffic volumes and regional traffic. Mid-Region Council of Government (MRCOG) Transportation Analysis and Querying Application (TAQA) was referenced to determine growth on study intersection. TAQA suggested a decrease in growth. To maintain a conservative analysis, a 0.5% growth factor per year was applied to movements of existing traffic on Carlisle Blvd and Indian School Rd.

Regional Growth

Increases in traffic associated with regional growth were estimated at 0.5 percent per year compounded for movements on Carlisle Blvd and Indian School up to 2026 as well as to 2036. This growth accounts for increases in traffic resulting from influences outside of the immediate study area. The resulting increases in volumes within the study area are reflected in Figure 4-1 for 2026 conditions and Figure 4-2 for 2036 conditions.

Background Traffic Forecasts

The existing traffic forecasts depicted on Figure 3-1 and the regional growth shown on Figure 4-1 (2026) and Figure 4-2 (2036) were added together to yield the background future traffic forecasts shown on Figure 4-3 for 2026 conditions and Figure 4-4 for 2036 conditions.

Background Future Levels of Service

Capacity analyses of 2026 and 2036 future traffic conditions without the proposed development are provided in Appendix F and summarized in Table 4-1. The forecasted levels of service are also depicted graphically in Figure 4-5 for 2026 conditions and Figure 4-6 for 2036 conditions.

As shown on Table 4-1, the intersections in the study area are forecasted to operate at levels of service consistent with existing conditions.

Background Future Queueing

An analysis of intersection queues was performed at key locations under background future traffic conditions. The results of the queuing analysis are summarized in Table 4-2.

As shown in Table 4-2, queues within the study network will increase due to regional traffic growth but are expected to remain generally consistent with existing conditions.

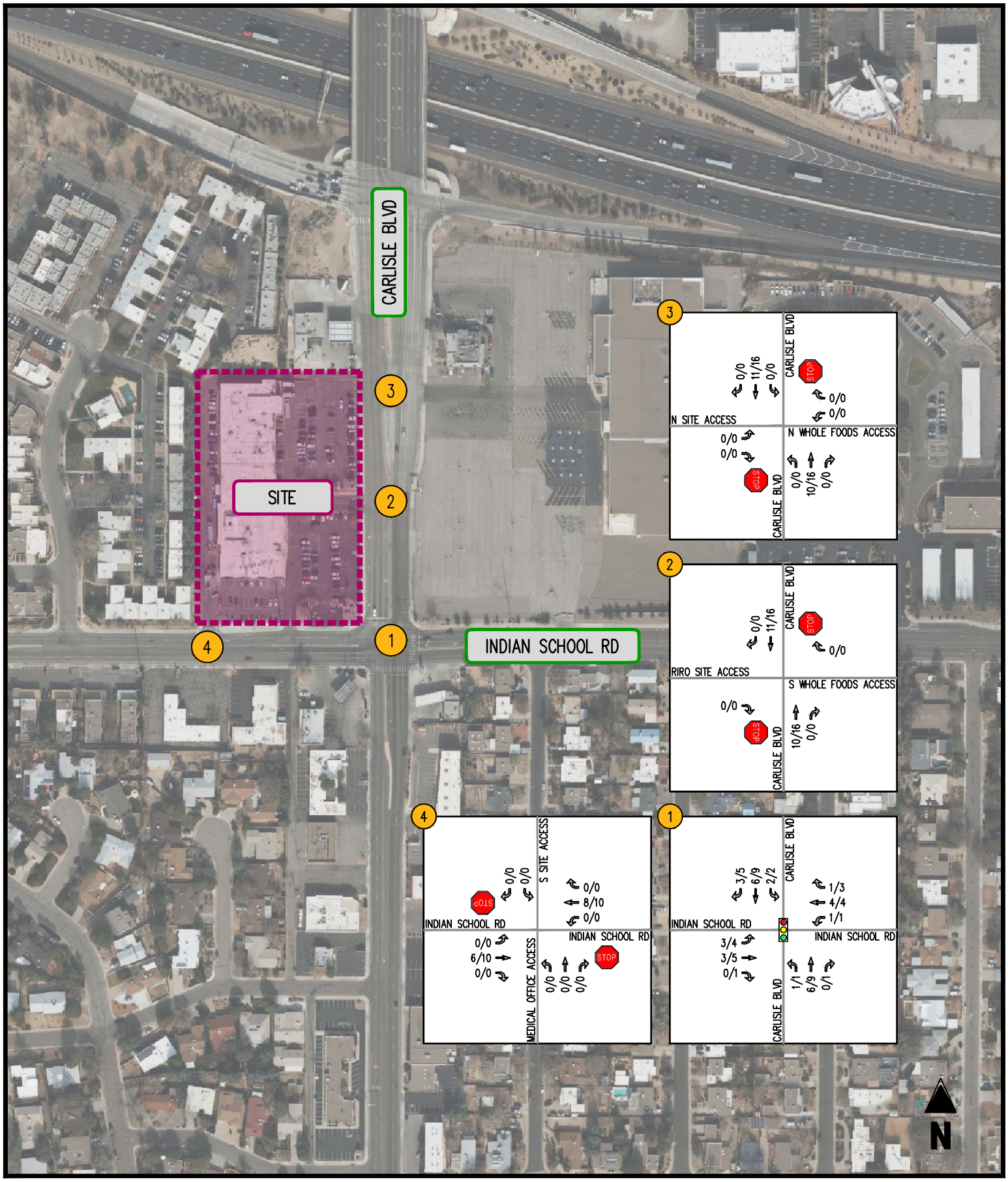


FIGURE 4-1
BACKGROUND 2026 GROWTH

CARLISLE & I-40
ALBUQUERQUE, NM

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

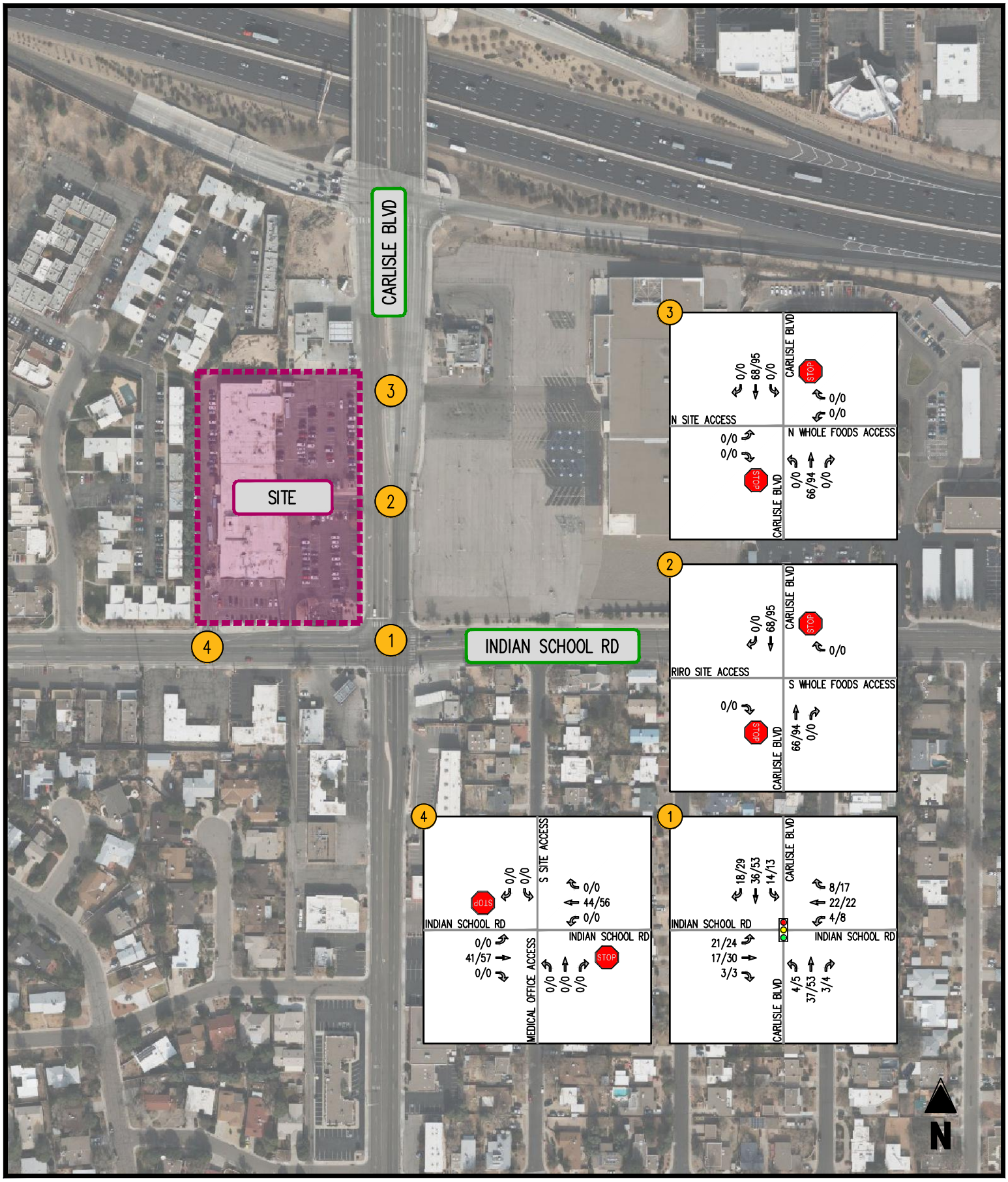


FIGURE 4-2
BACKGROUND 2036 GROWTH

CARLISLE & I-40
ALBUQUERQUE, NM

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

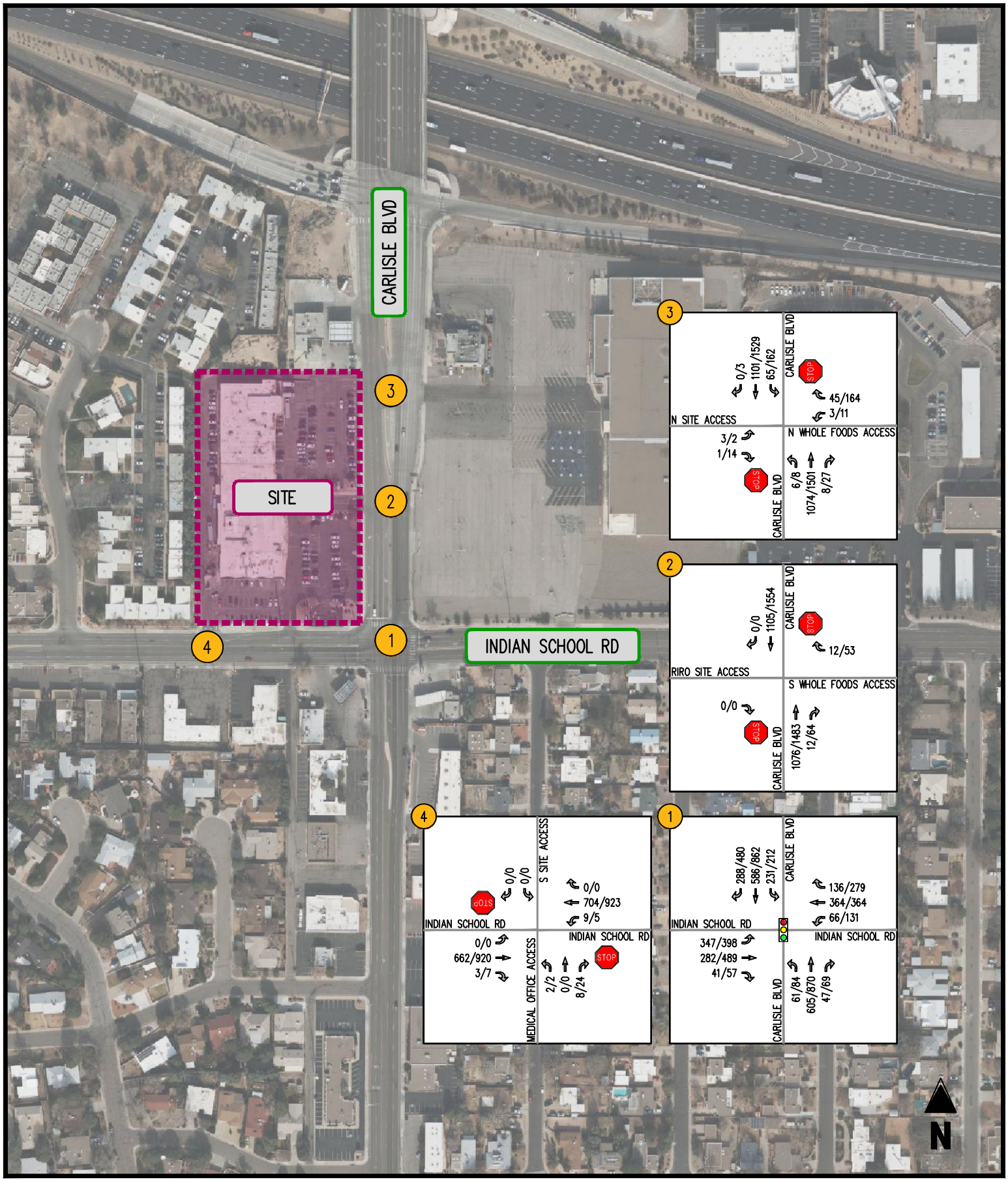


FIGURE 4-3
BACKGROUND 2026 FORECASTS

CARLISLE & I-40
ALBUQUERQUE, NM

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)
MOVEMENT
SIGNALIZED INTERSECTION
STOP STOP SIGN
YIELD SIGN

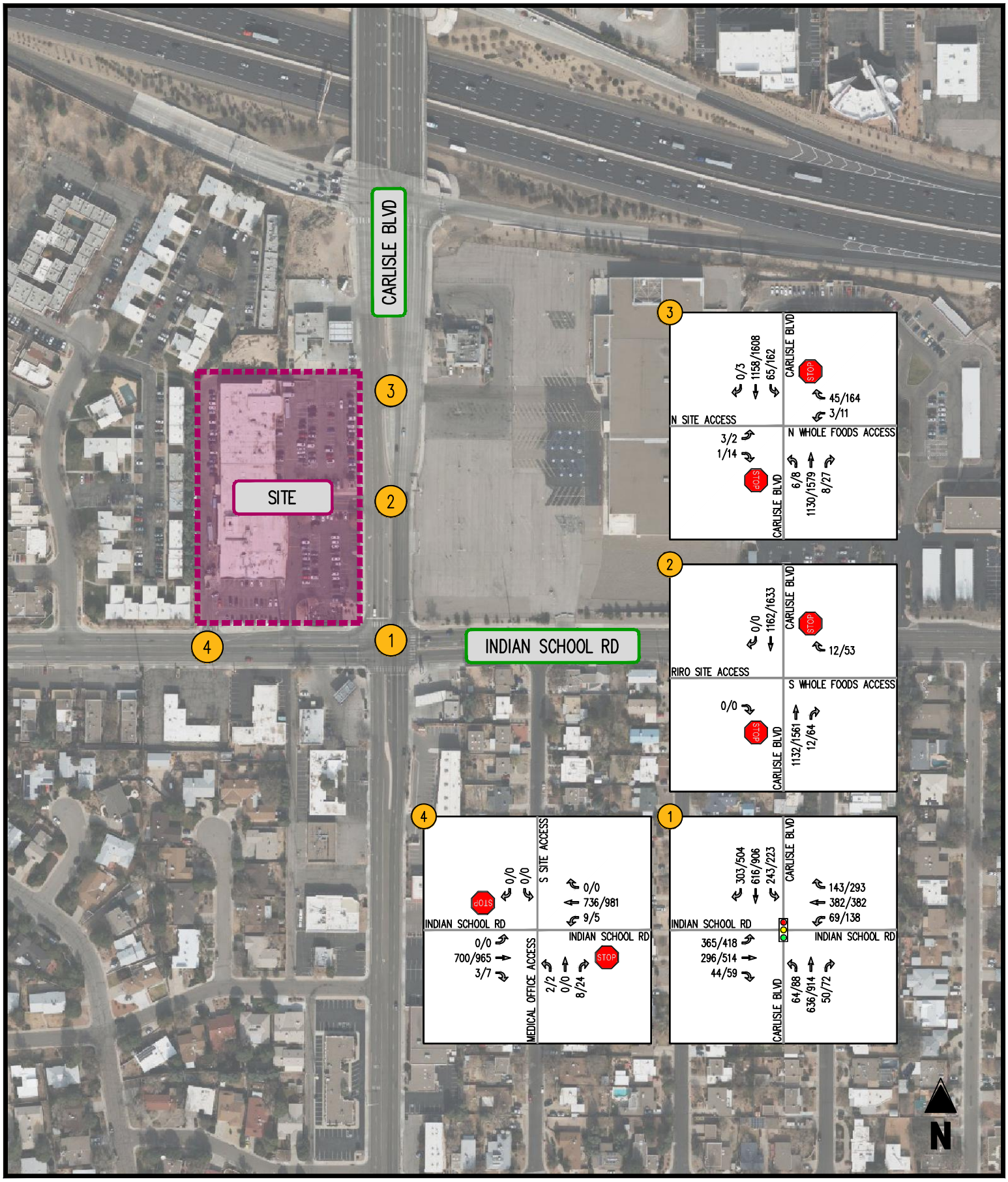


FIGURE 4-4
BACKGROUND 2036 FORECASTS

CARLISLE & I-40
ALBUQUERQUE, NM

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

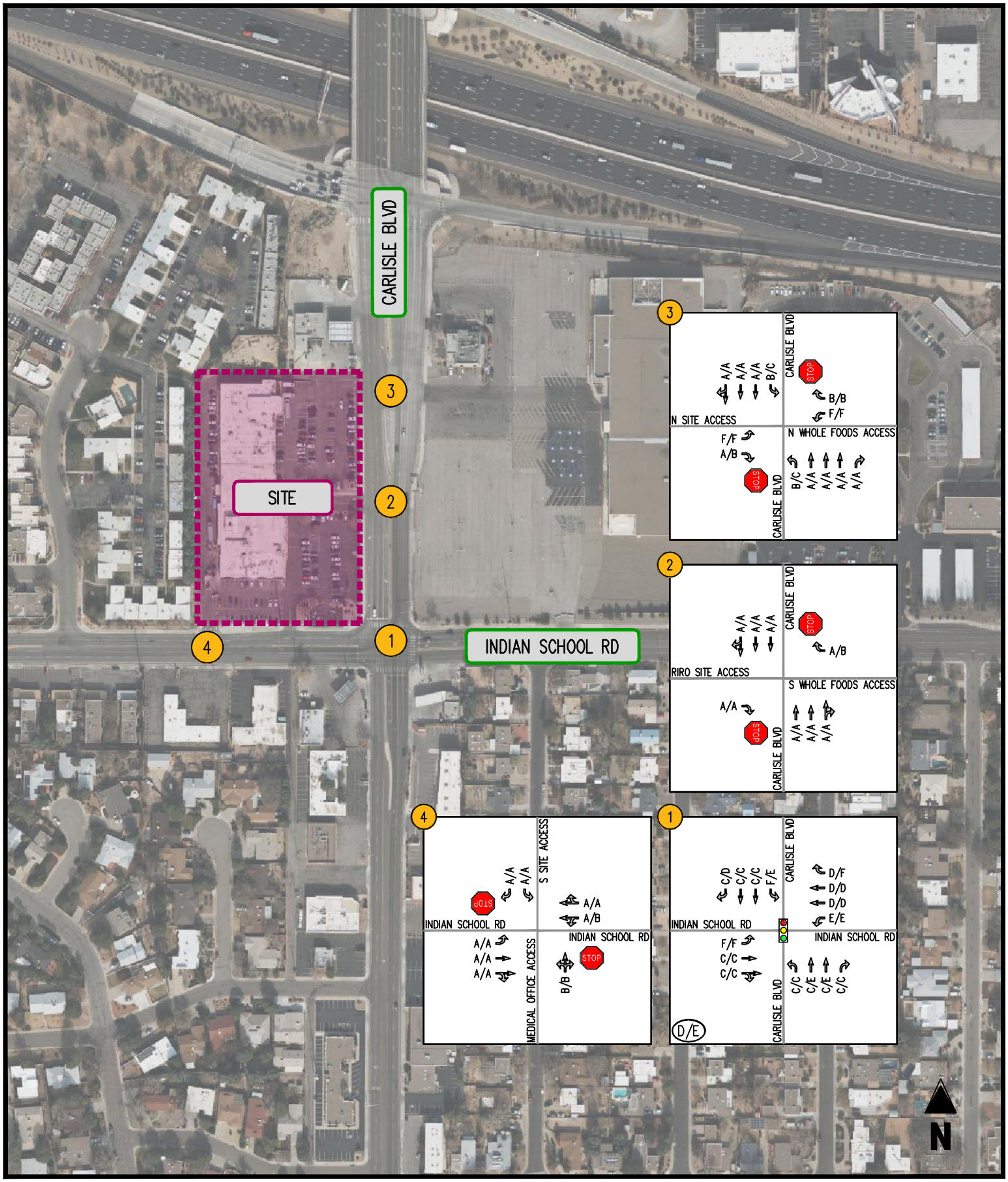


FIGURE 4-5
BACKGROUND 2026 LOS

CARLISLE & I-40
ALBUQUERQUE, NM

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

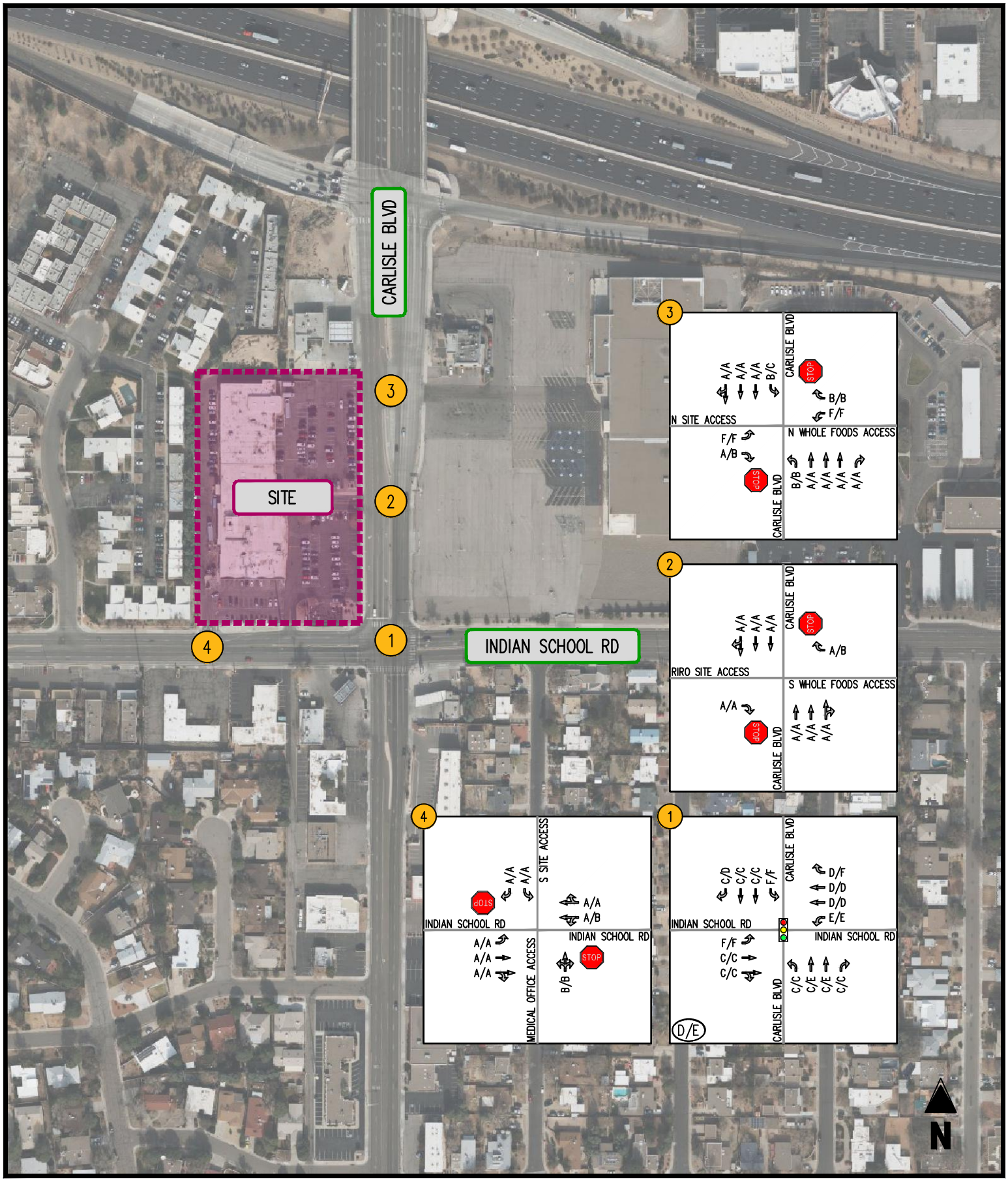


FIGURE 4-6
BACKGROUND 2036 LOS

CARLISLE & I-40
ALBUQUERQUE, NM

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

Table 4-1
Carlisle & I-40 - Albuquerque, NM
Background Future Intersection Level of Service Summary (1) (2)

Intersection	Operating Condition	Street Name	Approach/ Movement	Existing 2024 AM Peak Hour	Existing 2024 PM Peak Hour	Background 2026 AM Peak Hour	Background 2026 PM Peak Hour	Background 2036 AM Peak Hour	Background 2036 PM Peak Hour
1 Indian School Rd / Carlisle Blvd	SIGNAL	Indian School Rd	EBL	F (105.3)	F (117.9)	F (94.6)	F (122.1)	F (110.3)	F (141.3)
			EBTR	C (30.3)	C (33.5)	C (30.1)	C (32.9)	C (30.0)	C (34.0)
			WBL	E (56.9)	E (73.7)	E (56.8)	E (70.7)	E (56.5)	E (72.9)
		Indian School Rd	WBT	D (47.7)	D (44.4)	D (47.7)	D (43.6)	D (47.9)	D (44.1)
			WBR	D (47.5)	F (98.9)	D (47.3)	F (80.8)	D (46.9)	F (92.7)
			NBL	C (20.3)	C (29.6)	C (20.4)	C (29.8)	C (20.8)	C (30.7)
		Carlisle Blvd	NBT	C (28.2)	E (55.9)	C (28.2)	E (57.8)	C (29.2)	E (72.3)
			NBR	C (22.8)	C (32.8)	C (22.9)	C (32.9)	C (23.4)	C (33.7)
			SBL	F (182.8)	E (78.4)	F (172.1)	E (78.7)	F (195.6)	F (80.6)
		Carlisle Blvd	SBT	C (20.9)	C (34.1)	C (20.9)	C (34.4)	C (21.8)	D (35.9)
			SBR	C (22.7)	D (48.9)	C (22.5)	D (50.2)	C (23.7)	E (57.1)
		Overall		**D (50.7)**	**E (56.4)**	**D (48.5)**	**E (55.8)**	**D (52.5)**	**E (62.7)**
2 RIRO Site Access / Carlisle Blvd	STOP	RIRO Site Access	EBR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		S Whole Foods Access	WBR	A [9.7]	B [10.5]	A [9.7]	B [10.5]	A [9.7]	B [10.6]
		Carlisle Blvd	NBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Carlisle Blvd	SBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
3 N Site Access / Carlisle Blvd	STOP	N Site Access	EBL	F [61.8]	F [*]	F [61.5]	F [*]	F [70.2]	F [*]
			EBR	A [9.8]	B [10.2]	A [9.8]	B [10.2]	A [9.8]	B [10.5]
		N Whole Foods Access	WBL	F [57.5]	F [*]	F [56.4]	F [*]	F [64.1]	F [*]
			WBR	B [10.1]	B [12.4]	B [10.1]	B [12.2]	B [10.1]	B [12.4]
			NBL	B [11.2]	B [14.9]	B [11.3]	C [15.2]	B [11.8]	B [14.7]
		Carlisle Blvd	NBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			NBR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Carlisle Blvd	SBL	B [12.1]	C [18.8]	B [11.9]	C [19.4]	B [12.6]	C [20.8]
			SBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
4 Indian School Rd / S Site Access	STOP	Indian School Rd	EBL	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			EBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Indian School Rd	WBLT	A [9.4]	B [10.3]	A [9.2]	B [10.3]	A [9.3]	B [10.6]
			WBTR	A [0.1]	A [0.1]	A [0.1]	A [0.1]	A [0.1]	A [0.1]
		Medical Office Access	NBLTR	B [13.0]	C [15.3]	B [12.5]	B [14.2]	B [13.0]	B [14.8]
		S Site Access	SBL	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			SBR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.
(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.
* Delay exceeds 300 seconds

Table 4-2
Carlisle & I-40 - Albuquerque, NM
Background Future Intersection Queueing Summary (1)

Intersection	Operating Condition	Street Name	Approach/ Movement	Available Storage (Feet)	Existing 2024 AM Peak Hour	Existing 2024 PM Peak Hour	Background 2026 AM Peak Hour	Background 2026 PM Peak Hour	Background 2036 AM Peak Hour	Background 2036 PM Peak Hour
1 Indian School Rd / Carlisle Blvd	SIGNAL	Indian School Rd	EBL	300	477	576	471	584	505	621
			EBTR	-	136	255	135	257	142	272
			WBL	170	93	189	95	189	97	205
		Indian School Rd	WBT	-	178	198	181	198	188	207
			WBR	115	52	119	52	119	53	140
			NBL	120	51	69	51	70	54	73
		Carlisle Blvd	NBT	-	278	507	274	516	290	556
			NBR	150	0	0	0	0	0	0
			SBL	250	371	314	369	317	398	339
		Carlisle Blvd	SBT	-	248	413	246	419	264	450
			SBR	-	57	89	59	94	61	122
2 RIRO Site Access / Carlisle Blvd	STOP	RIRO Site Access	EBR	-	0	0	0	0	0	0
		S Whole Foods Access	WBR	-	2.5	7.5	2.5	7.5	2.5	7.5
		Carlisle Blvd	NBTR	-	0	0	0	0	0	0
		Carlisle Blvd	SBTR	-	0	0	0	0	0	0
3 N Site Access / Carlisle Blvd	STOP	N Site Access	EBL	-	5	15	5	12.5	5	15
			EBR	-	0	2.5	0	2.5	0	2.5
		N Whole Foods Access	WBL	-	5	52.5	2.5	50	5	55
			WBR	-	5	30	5	27.5	5	27.5
			NBL	120	0	2.5	0	2.5	0	2.5
		Carlisle Blvd	NBT	-	0	0	0	0	0	0
			NBR	120	0	0	0	0	0	0
		Carlisle Blvd	SBL	240	10	47.5	10	50	10	55
			SBTR	-	0	0	0	0	0	0
4 Indian School Rd / S Site Access	STOP	Indian School Rd	EBL	220	0	0	0	0	0	0
			EBTR	-	0	0	0	0	0	0
		Indian School Rd	WBLT	-	0	0	0	0	0	0
			WBTR	-	0	0	0	0	0	0
		Medical Office Access	NBLTR	-	2.5	7.5	2.5	5	2.5	5
		S Site Access	SBL	-	0	0	0	0	0	0
			SBR	-	0	0	0	0	0	0

Notes : (1) Queue length, in feet, is based on the 95th percentile queue as reported by Synchro, Version 12.

V. Site Analysis

Overview

The Applicant is proposing to redevelop the approximately 3.66-acre site with commercial uses consisting of a shopping plaza with no supermarket use and a fast-food restaurant with a drive through and no indoor seating. For purposes of this study, the site is assumed complete and occupied in 2026. The following use and development programs were analyzed:

Build-Out 2026:

42,045	SF	Shopping Plaza (40-150K SQ FT) – w/o Supermarket
1	LANE	Fast-Food Restaurant w/Drive-Through and No Indoor Seating

Proposed Site Access and Improvements

As shown on the Applicant's conceptual plan (Figure 1-2), access to the development is being proposed via one existing full movement access on Carlisle Blvd, one existing right-in/right-out (RIRO) access on Carlisle Blvd, and one existing full movement access on Indian School Rd. The full access movements on both Carlisle Blvd and Indian School Rd are located at the existing public alley location. The project will also utilize the existing public alley for two-way traffic circulation. One existing RIRO access on Indian School will be removed with the proposed project.

A bike lane is planned to be constructed along southbound Carlisle Blvd. This will require the vehicle lanes to be narrower to accommodate the bike lane. When vehicle lanes are narrowed it causes vehicles to drive slower; this will likely reduce crash frequency and can lessen the number and/or severity of injuries caused due to crashes in the corridor. The lane reduction is shown on the Striping Exhibit provided within Appendix A.

Trip Generation

Overview

Trip generation estimates for the weekday AM and PM peak hours, as well as the weekday average daily traffic (ADT), were derived from the standard Institute of Transportation Engineers (ITE) Trip Generation Manual rates/equations, as published in the 11th edition. At the request of the City, the AM peak hour trips for the Fast Food Restaurant w/Drive-Through and No Indoor Seating use was assumed to be 105 trips. The trip generation analysis is presented in Table 5-1.

Pass-by Trips

According to ITE, in some cases the driveway volumes at a particular land use are different from the amount of traffic added to the adjacent street system. Uses such as retail establishments attract a portion of their trips from traffic that is already present on the road network. Pass-by trips are those trips which are made as intermediate stops on the way to a primary destination. An example of a pass-by trip would be one in which a driver stops at a fast-food restaurant on his/her way to work.

The proposed use would experience pass-by trips consistent with the primary uses located on site. In recognition of this phenomenon and consistent with ITE published data, the following pass-by reductions were applied to the trip generation analysis:

- Shopping Plaza (40-150K SQ FT) – w/o Supermarket: 0% AM / 40% PM

- Fast-food Restaurant with Drive-Through and No Indoor Seating: 0% AM / 31% PM

As shown in Table 5-1, the site in total is anticipated to generate 0 weekday AM, and 106 weekday PM peak hour pass-by trips. Therefore, these trips would be drawn from the existing road network and assigned to the future site entrances accordingly. Pass-by trip assignments at key study intersections are shown on Figure 5-1.

Net Site Trips
The vehicle trips that would be generated by the proposed development plan are summarized in Table 5-1. As shown in Table 5-1, the site would generate upon completion and full occupancy 178 net new weekday AM and 172 net new weekday PM peak hour vehicle trips, as well as 2,117 net new weekday daily trips.

Site Trip Distributions
The distribution of the anticipated trips generated by the completion of the proposed development was based on an examination of existing traffic counts and local knowledge. Existing travel patterns indicate the following distribution is appropriate in the forecasting of future site traffic:

- To/from the north on Carlisle Blvd: 20%
- To/from the south on Carlisle Blvd: 40%
- To/from the west on Indian School Rd: 20%
- To/from the east on Indian School Rd: 20%

Site Trip Assignments
The assignment of the new vehicle trips generated upon the future build-out of the development project was based on the above distribution. The trips assignments are depicted on Figure 5-2.

Trip Generation Comparison
For comparative purposes the trip generation of the previously occupied use compared to the proposed use for the subject site is provided on Table 5-1. As shown on Table 5-1 the comparison of the previously existing use to the proposed use shows that the proposed use is forecasted to generate:

- 76 ***greater*** AM weekday peak hour trips (34 greater in/42 greater out),
- 83 ***fewer*** PM weekday peak hour trips (43 fewer in/40 fewer out),
- 549 ***fewer*** weekday average daily trips.

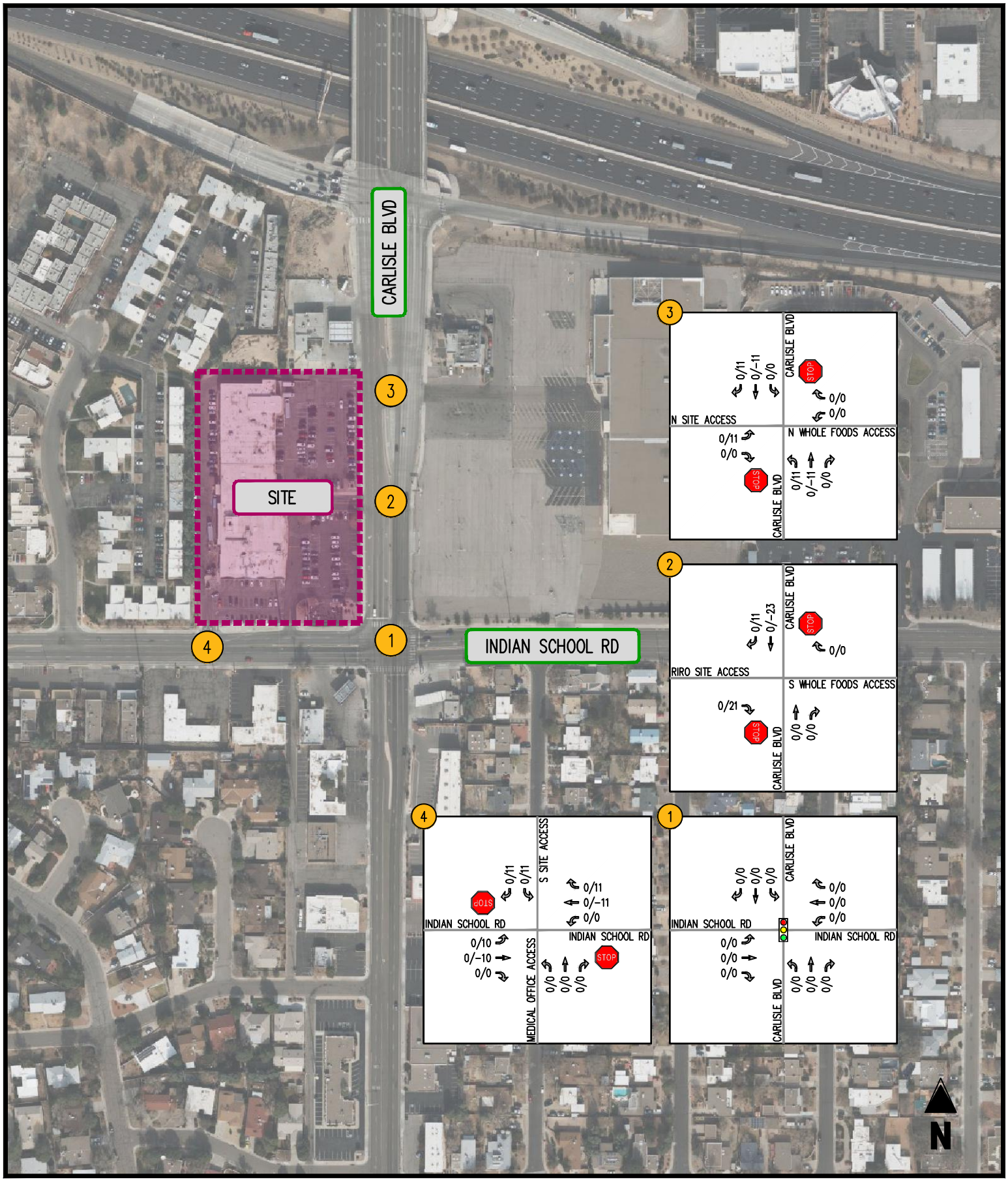


FIGURE 5-1
PASS-BY TRIPS

CARLISLE & I-40
ALBUQUERQUE, NM

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

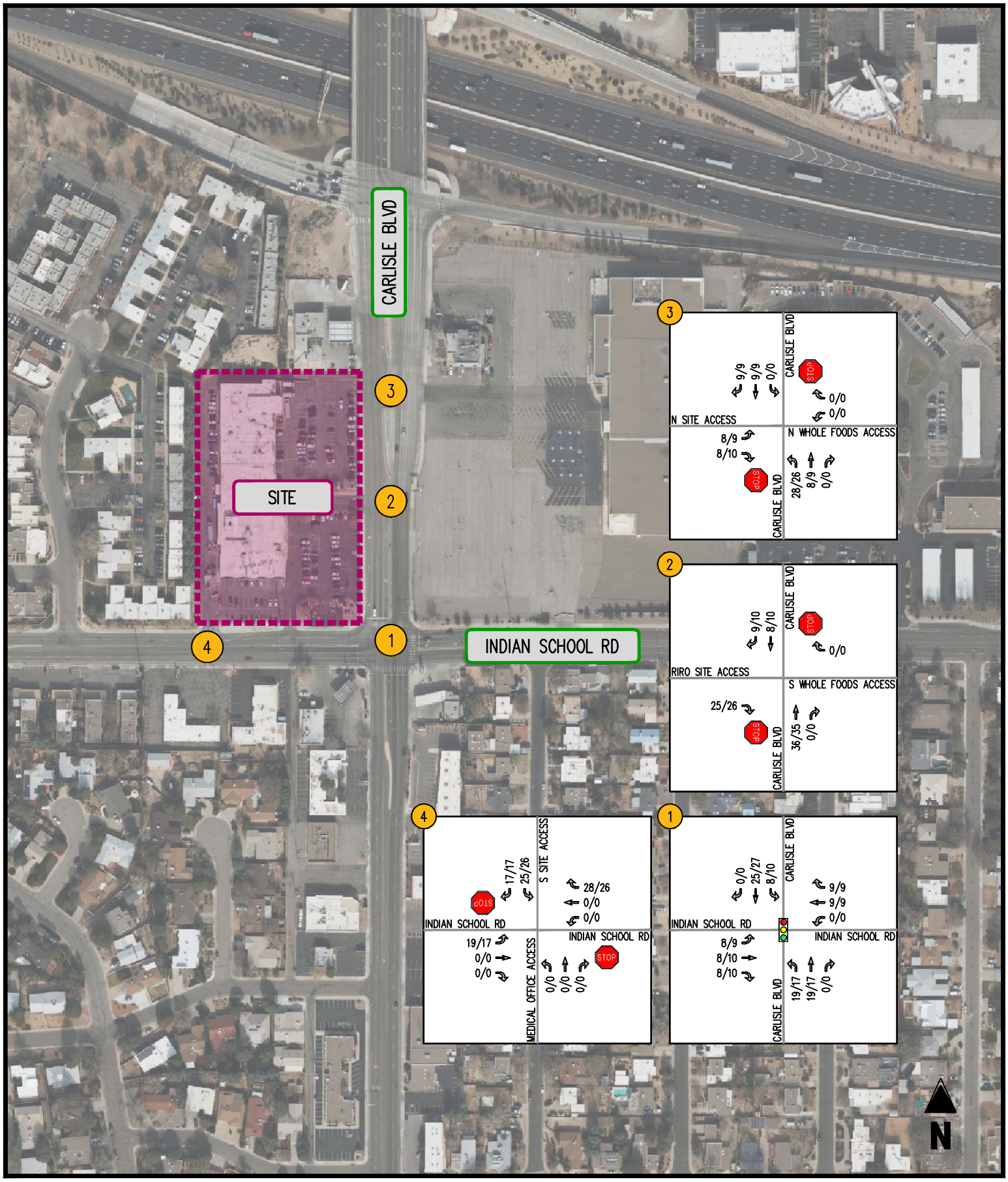


FIGURE 5-2
SITE TRIPS

CARLISLE & I-40
ALBUQUERQUE, NM

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

Table 5-1
Carlisle & I-40 - Albuquerque, NM
Site Trip Generation

Land Use	Land Use Code	Amount	Units	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Average Daily Trips
Existing [1] *- for comparative purposes*										
Supermarket	850	35,600	SF	60	42	102	168	167	335	3,508
Pass-by's (0%AM / 24%PM)				*0*	*0*	*0*	*(40)*	*(40)*	*(80)*	*(842)*
Net New Trips				**60**	**42**	**102**	**128**	**127**	**255**	**2,666**
Proposed [1]										
Shopping Plaza (40-150k) - w/o Supermarket	821	42,045	SF	45	28	73	107	111	218	2,839
Pass-by's (0%AM / 40%PM)				*0*	*0*	*0*	*(43)*	*(44)*	*(87)*	*(1,136)*
Net New Trips				**45**	**28**	**73**	**64**	**67**	**131**	**1,703**
Fast-Food Restaurant w Drive-Through and No Indoor Seating [2]	935	1	LANES	49	56	105	31	29	60	600
Pass-by's (0%AM / 31%PM)				*0*	*0*	*0*	*(10)*	*(9)*	*(19)*	*(186)*
Net New Trips				**49**	**56**	**105**	**21**	**20**	**41**	**414**
Total				94	84	178	138	140	278	3,439
Pass-by's Total				*0*	*0*	*0*	*(53)*	*(53)*	*(106)*	*(1,322)*
Net Total				**94**	**84**	**178**	**85**	**87**	**172**	**2,117**
Difference (Proposed minus Existing)				**34**	**42**	**76**	**(43)**	**(40)**	**(83)**	**(549)**

Note(s):
(1) Trip generation based on the Institute of Transportation Engineers' Trip Generation Manual, 11th Edition
(2) Trip generation of 105 AM peak hour trips per request of the City of Albuquerque

VI. Analysis of Future Conditions with Site Development

Total Future Traffic Forecasts

The 2026 and 2036 total future traffic forecasts associated with the proposed development were developed by combining the background future forecasts shown on Figure 4-3 (2026) and Figure 4-4 (2036), the pass-by trips shown on Figure 5-1, and the site trip assignments shown on Figure 5-2. The resulting total future traffic forecasts are provided in Figure 6-1 for 2026 conditions and Figure 6-2 for 2036 conditions.

Total Future Levels of Service with Proposed Development

Future levels of service with the proposed development plan were estimated at key study intersections based on the future traffic volumes shown on Figures 6-1 and Figure 6-2, the lane use on Figure 2-1, and the HCM 7th methodologies for signalized and unsignalized intersections. The results of these analyses are provided in Appendix G and presented in Table 6-1. Total future levels of service are also presented graphically in Figure 6-3 (2026) and Figure 6-4 (2036).

As shown in Table 6-1, levels of service under future site development conditions would remain generally consistent with future background conditions (i.e., without site development). Overall delays would experience a minor increase due to site trips. The signalized intersections within the study area would continue to operate at levels of service consistent with background conditions.

Movements for the unsignalized intersections within the study area forecasted to operate at overall LOS “D” or better with the exception of the eastbound and westbound left movements at the N Site Access/Carlisle Blvd intersection which are forecasted to continue to operate at LOS “F” during the weekday AM and PM peak hours, consistent with background and existing conditions. The southbound left movement at the Indian School/S Site Access intersection is forecasted to operate at LOS “F” during the PM peak hours with volume/capacity (V/C) ratios below 1.0 suggesting additional capacity available. These delays are typical for unsignalized left turn movements and are often over reported by the software. A review of peak hour signal warrants suggest that signal improvements would not be warranted.

Total Future Queuing

Total future queues were forecasted using Synchro software. The results of the queuing analysis are summarized in Table 6-2. The forecasted queues are expected to remain consistent with background conditions.

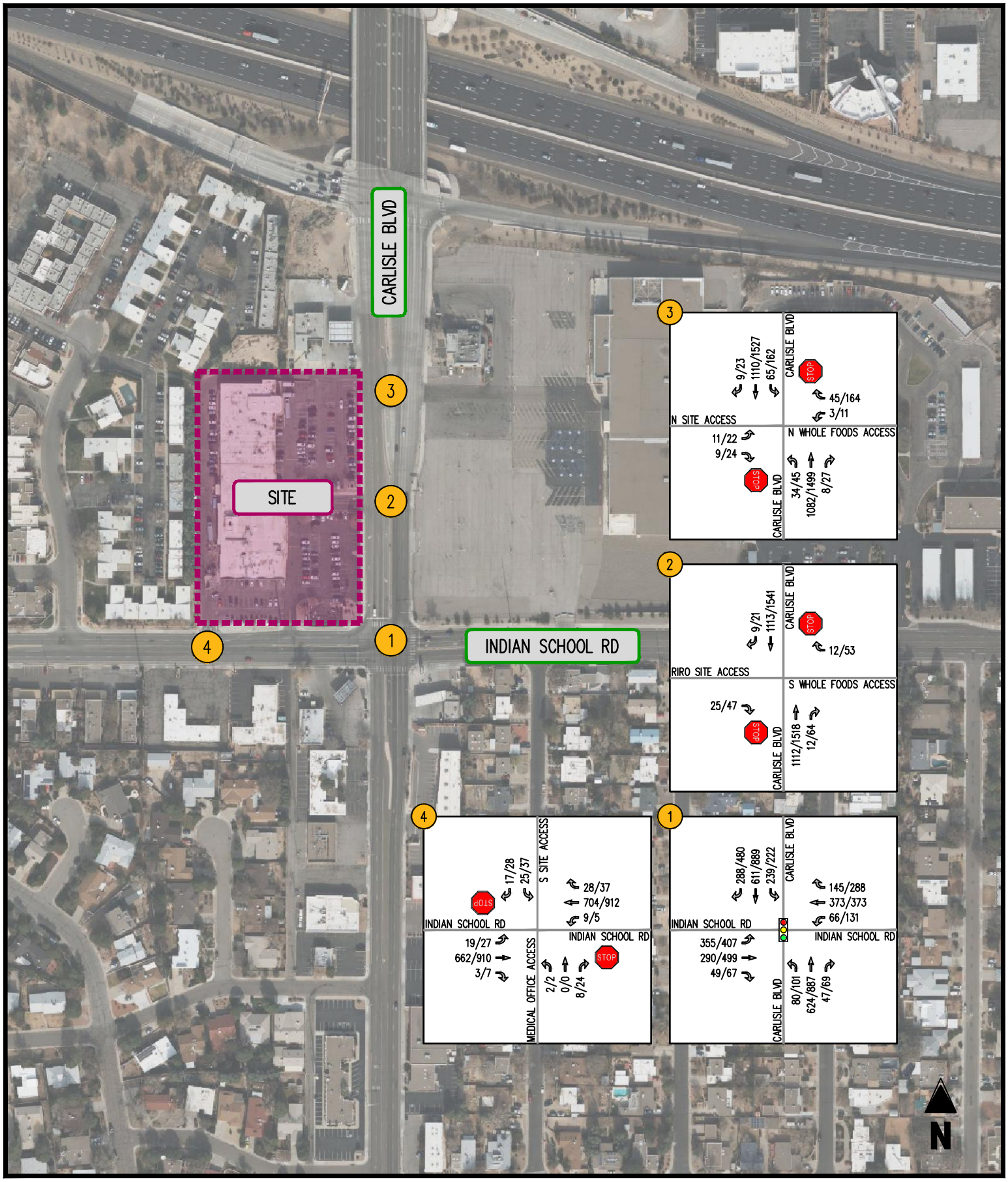


FIGURE 6-1
TOTAL FUTURE 2026 FORECASTS

CARLISLE & I-40
ALBUQUERQUE, NM

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

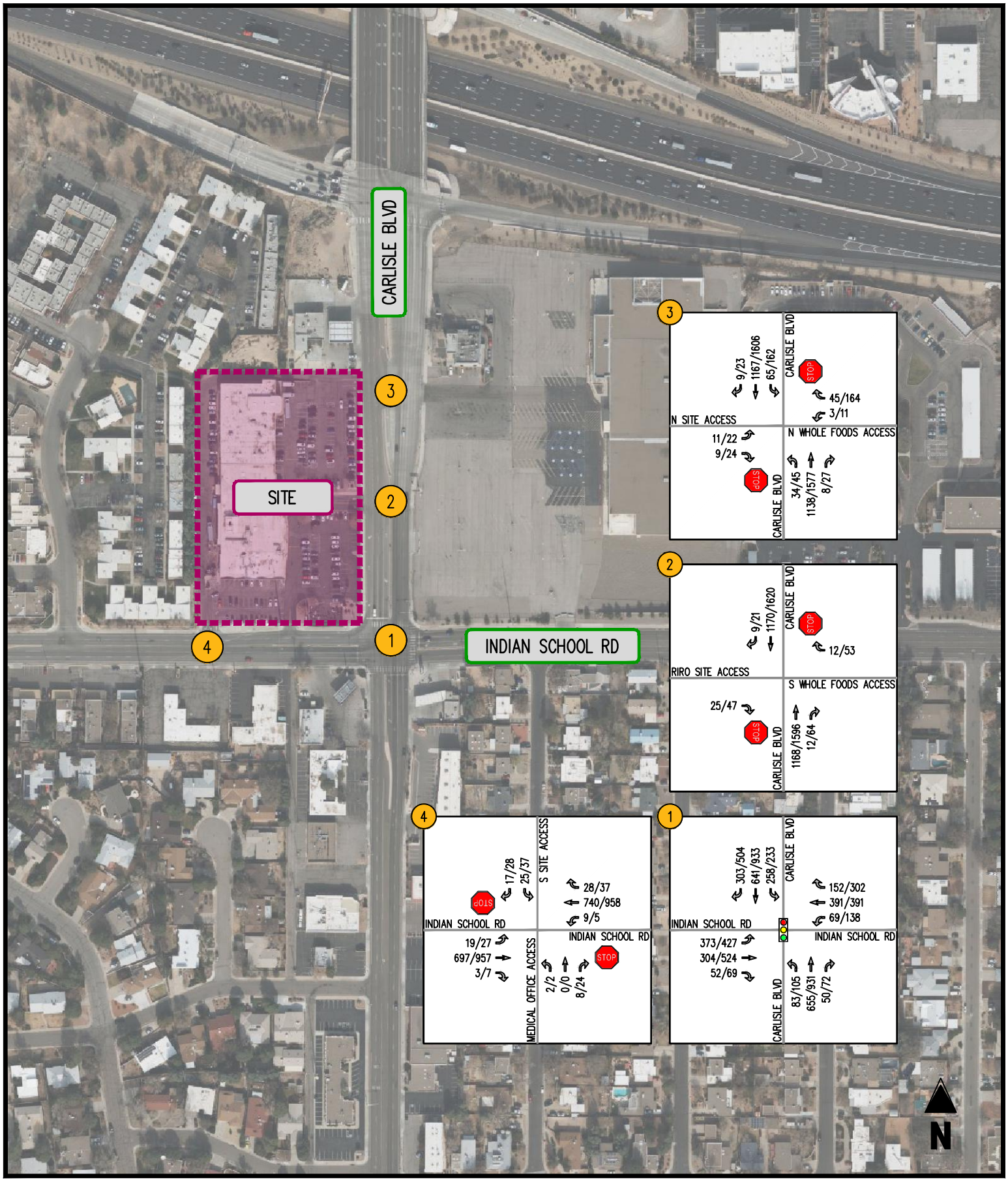


FIGURE 6-2
TOTAL FUTURE 2036 FORECASTS

CARLISLE & I-40
ALBUQUERQUE, NM

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP STOP SIGN

YIELD SIGN

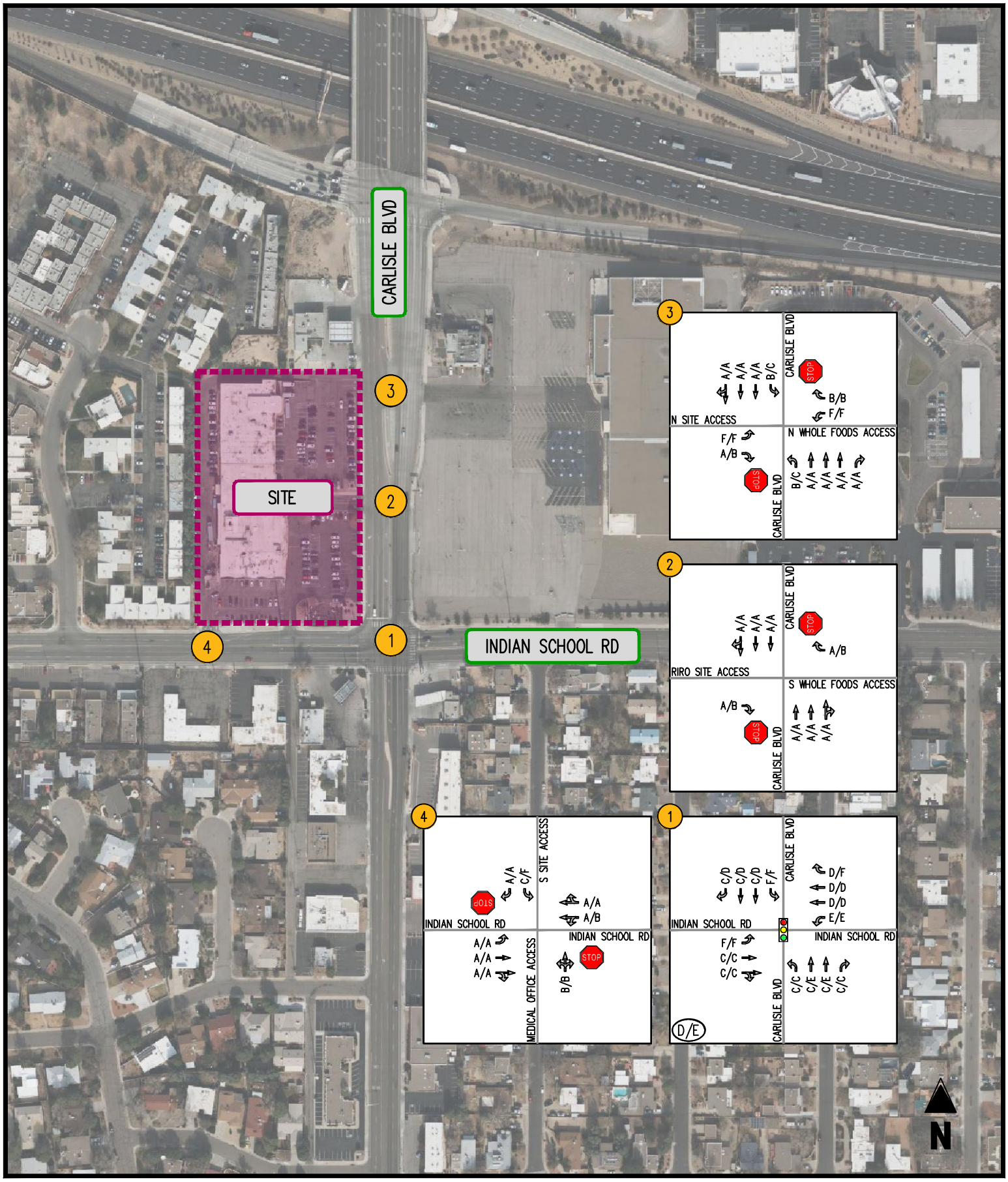


FIGURE 6-3
TOTAL FUTURE 2026 LOS

CARLISLE & I-40
ALBUQUERQUE, NM

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

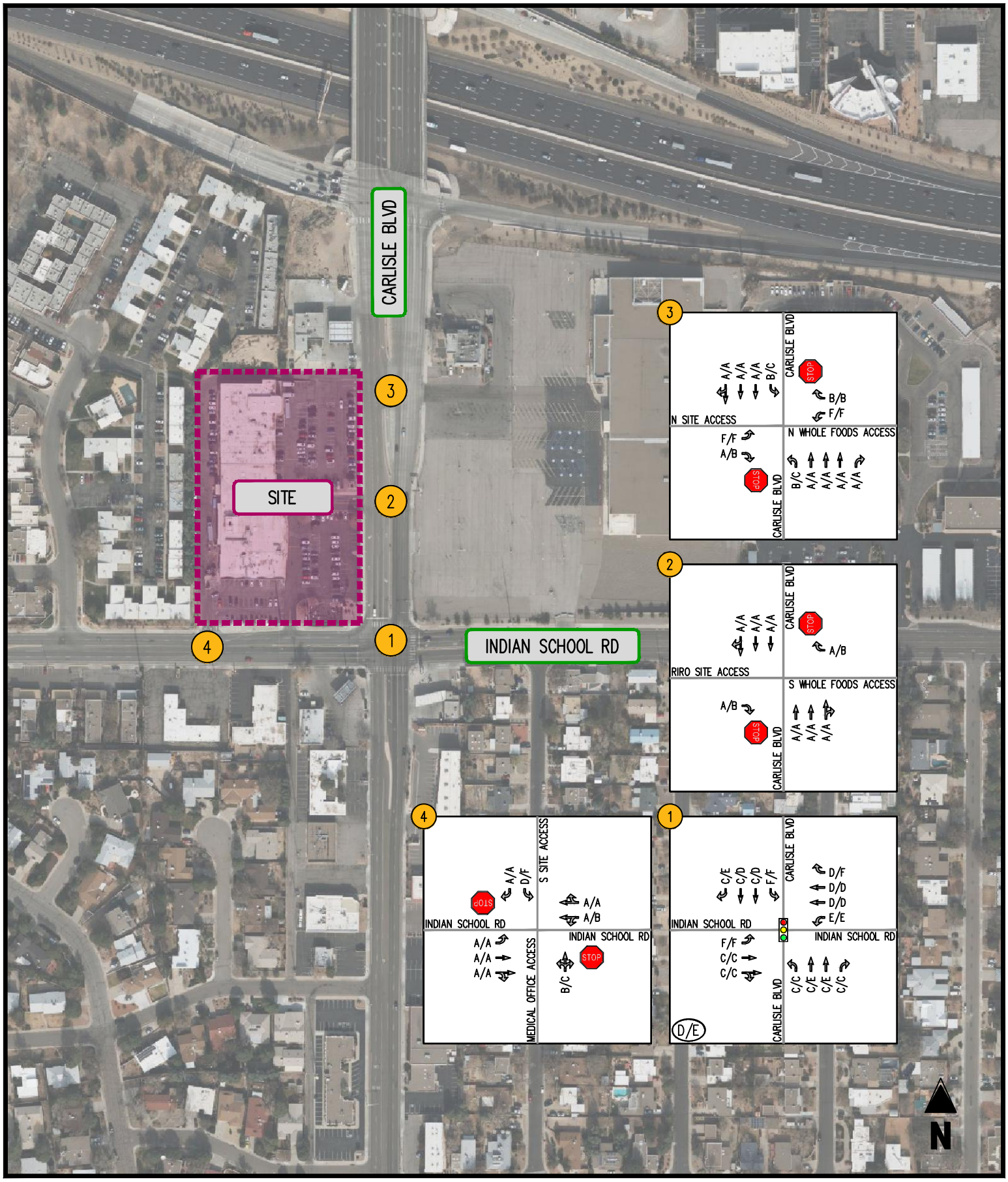


FIGURE 6-4
TOTAL FUTURE 2036 LOS

CARLISLE & I-40
ALBUQUERQUE, NM

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

MOVEMENT

SIGNALIZED INTERSECTION

STOP SIGN

YIELD SIGN

Table 6-1
Carlisle & I-40 - Albuquerque, NM
Total Future Intersection Level of Service Summary (1) (2)

Intersection	Operating Condition	Street Name	Approach/ Movement	Background 2026 AM Peak Hour	Background 2026 PM Peak Hour	Background 2036 AM Peak Hour	Background 2036 PM Peak Hour	Total Future 2026 AM Peak Hour	Total Future 2026 PM Peak Hour	Total Future 2036 AM Peak Hour	Total Future 2036 PM Peak Hour
1 Indian School Rd / Carlisle Blvd	SIGNAL	Indian School Rd	EBL	F (94.6)	F (122.1)	F (110.3)	F (141.3)	F (101.3)	F (130.1)	F (117.3)	F (150.9)
			EBTR	C (30.1)	C (32.9)	C (30.0)	C (34.0)	C (30.1)	C (33.3)	C (30.0)	C (34.4)
		Indian School Rd	WBL	E (56.8)	E (70.7)	E (56.5)	E (72.9)	E (56.8)	E (70.7)	E (56.5)	E (72.9)
			WBT	D (47.7)	D (43.6)	D (47.9)	D (44.1)	D (47.8)	D (43.8)	D (47.9)	D (44.4)
			WBR	D (47.3)	F (80.8)	D (46.9)	F (92.7)	D (47.7)	F (88.5)	D (47.2)	F (101.3)
		Carlisle Blvd	NBL	C (20.4)	C (29.8)	C (20.8)	C (30.7)	C (20.4)	C (30.5)	C (20.8)	C (31.3)
			NBT	C (28.2)	E (57.8)	C (29.2)	E (72.3)	C (28.8)	E (65.0)	C (29.9)	E (77.9)
			NBR	C (22.9)	C (32.9)	C (23.4)	C (33.7)	C (23.1)	C (33.5)	C (23.6)	C (33.7)
		Carlisle Blvd	SBL	F (172.1)	E (78.7)	F (195.6)	F (80.6)	F (188.3)	F (80.4)	F (212.5)	F (89.3)
			SBT	C (20.9)	C (34.4)	C (21.8)	D (35.9)	C (21.7)	D (36.4)	C (23.0)	D (38.0)
			SBR	C (22.5)	D (50.2)	C (23.7)	E (57.1)	C (23.6)	D (53.6)	C (24.8)	E (61.4)
		Overall		**D (48.5)**	**E (55.8)**	**D (52.5)**	**E (62.7)**	**D (50.7)**	**E (59.3)**	**D (54.8)**	**E (66.6)**
2 RIRO Site Access / Carlisle Blvd	STOP	RIRO Site Access	EBR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [10.0]	B [10.5]	A [10.0]	B [10.8]
		S Whole Foods Access	WBR	A [9.7]	B [10.5]	A [9.7]	B [10.6]	A [9.7]	B [10.6]	A [9.8]	B [10.7]
		Carlisle Blvd	NBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Carlisle Blvd	SBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
3 N Site Access / Carlisle Blvd	STOP	N Site Access	EBL	F [61.5]	F [*]	F [70.2]	F [*]	F [85.1]	F [*]	F [100.6]	F [*]
			EBR	A [9.8]	B [10.2]	A [9.8]	B [10.5]	A [9.9]	B [10.3]	A [9.9]	B [10.6]
		N Whole Foods Access	WBL	F [56.4]	F [*]	F [64.1]	F [*]	F [66.7]	F [*]	F [76.5]	F [*]
			WBR	B [10.1]	B [12.2]	B [10.1]	B [12.4]	B [10.1]	B [12.2]	B [10.1]	B [12.4]
		Carlisle Blvd	NBL	B [11.3]	C [15.2]	B [11.8]	B [14.7]	B [11.8]	C [16.8]	B [12.4]	C [16.2]
			NBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			NBR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Carlisle Blvd	SBL	B [11.9]	C [19.4]	B [12.6]	C [20.8]	B [12.0]	C [19.3]	B [12.7]	C [20.8]
			SBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
4 Indian School Rd / S Site Access	STOP	Indian School Rd	EBL	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [8.6]	A [9.4]	A [8.8]	A [9.5]
			EBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Indian School Rd	WBLT	A [9.2]	B [10.3]	A [9.3]	B [10.6]	A [9.2]	B [10.3]	A [9.3]	B [10.5]
			WBTR	A [0.1]	A [0.1]	A [0.1]	A [0.1]	A [0.1]	A [0.1]	A [0.1]	A [0.1]
		Medical Office Access	NBLTR	B [12.5]	B [14.2]	B [13.0]	B [14.8]	B [12.9]	B [14.6]	B [13.5]	C [15.3]
		S Site Access	SBL	A [0.0]	A [0.0]	A [0.0]	A [0.0]	C [24.6]	F [58.9]	D [27.5]	F [71.0]
			SBR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [9.1]	A [9.4]	A [9.1]	A [9.5]

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.
(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.
* Delay exceeds 300 seconds

Table 6-2
Carlisle & I-40 - Albuquerque, NM
Total Future Intersection Queueing Summary (1)

Intersection	Operating Condition	Street Name	Approach/ Movement	Available Storage (Feet)	Background 2026 AM Peak Hour	Background 2026 PM Peak Hour	Background 2036 AM Peak Hour	Background 2036 PM Peak Hour	Total Future 2026 AM Peak Hour	Total Future 2026 PM Peak Hour	Total Future 2036 AM Peak Hour	Total Future 2036 PM Peak Hour
1 Indian School Rd / Carlisle Blvd	SIGNAL	Indian School Rd	EBL	300	471	584	505	621	486	601	517	639
			EBTR	-	135	257	142	272	140	267	147	283
			WBL	170	95	189	97	205	95	189	97	205
		Indian School Rd	WBT	-	181	198	188	207	184	202	193	213
			WBR	115	52	119	53	140	53	132	54	152
			NBL	120	51	70	54	73	64	82	66	84
		Carlisle Blvd	NBT	-	274	516	290	556	284	532	300	573
			NBR	150	0	0	0	0	0	0	0	0
			SBL	250	369	317	398	339	389	338	413	359
		Carlisle Blvd	SBT	-	246	419	264	450	263	445	280	485
			SBR	-	59	94	61	122	60	111	62	141
2 RIRO Site Access / Carlisle Blvd	STOP	RIRO Site Access	EBR	-	0	0	0	0	2.5	5	2.5	5
		S Whole Foods Access	WBR	-	2.5	7.5	2.5	7.5	2.5	7.5	2.5	7.5
		Carlisle Blvd	NBTR	-	0	0	0	0	0	0	0	0
		Carlisle Blvd	SBTR	-	0	0	0	0	0	0	0	0
3 N Site Access / Carlisle Blvd	STOP	N Site Access	EBL	-	5	12.5	5	15	17.5	105	20	107.5
			EBR	-	0	2.5	0	2.5	0	2.5	0	2.5
		N Whole Foods Access	WBL	-	2.5	50	5	55	5	55	5	60
			WBR	-	5	27.5	5	27.5	5	27.5	5	27.5
			NBL	120	0	2.5	0	2.5	5	12.5	5	12.5
		Carlisle Blvd	NBT	-	0	0	0	0	0	0	0	0
			NBR	120	0	0	0	0	0	0	0	0
		Carlisle Blvd	SBL	240	10	50	10	55	10	50	12.5	55
			SBTR	-	0	0	0	0	0	0	0	0
4 Indian School Rd / S Site Access	STOP	Indian School Rd	EBL	220	0	0	0	0	2.5	2.5	2.5	2.5
			EBTR	-	0	0	0	0	0	0	0	0
		Indian School Rd	WBLT	-	0	0	0	0	0	0	0	0
			WBTR	-	0	0	0	0	0	0	0	0
		Medical Office Access	NBLTR	-	2.5	5	2.5	5	2.5	5	2.5	5
		S Site Access	SBL	-	0	0	0	0	10	40	12.5	45
			SBR	-	0	0	0	0	2.5	2.5	2.5	2.5

Notes : (1) Queue length, in feet, is based on the 95th percentile queue as reported by Synchro, Version 12.

VII. Conclusions and Recommendations

Conclusions

Based on the results of this traffic impact study, the following may be concluded:

- Under existing traffic conditions, the signalized intersection within the study area currently operates at overall levels of service (LOS) “D” during the weekday AM peak hour and LOS “E” during the PM peak hour.

- Under existing traffic conditions, the movements for the unsignalized intersections within the study area currently operate at overall LOS “C” or better during the weekday AM and PM peak hours with the exception of the eastbound and westbound left movements at the N Site Access/Carlisle Blvd intersection which operate at LOS “F” during the weekday AM and PM peak hours.

- Under existing traffic conditions, queues remain within their respective storage lengths with the exception of the eastbound and southbound left queues at the Indian School Rd/Carlisle Blvd intersection during the weekday AM and PM peak hours and the westbound left and right queues at the Indian School Rd/Carlisle Blvd intersection during the PM peak hour.

- Analysis of existing crash data did not identify specific areas of improvement coincident with the proposed development.

- Under background future 2026 and 2036 traffic conditions, without the development of the subject site, delays would increase slightly at study intersections due to regional traffic growth. The intersections are forecasted to operate consistent with existing conditions.

- In the background future 2026 and 2036 traffic conditions, queues are expected to remain consistent with existing conditions.

- The proposed site development would generate, upon completion and full occupancy, 178 net new weekday AM and 172 net new weekday PM peak hour vehicle trips as well as 2,117 net new weekday average daily trips.

- A comparison of the previously occupied use to the proposed use shows that the proposed use is forecasted to generate 76 greater AM weekday peak hour trips, 83 fewer PM weekday peak hour trips, and 549 fewer weekday average daily trips.

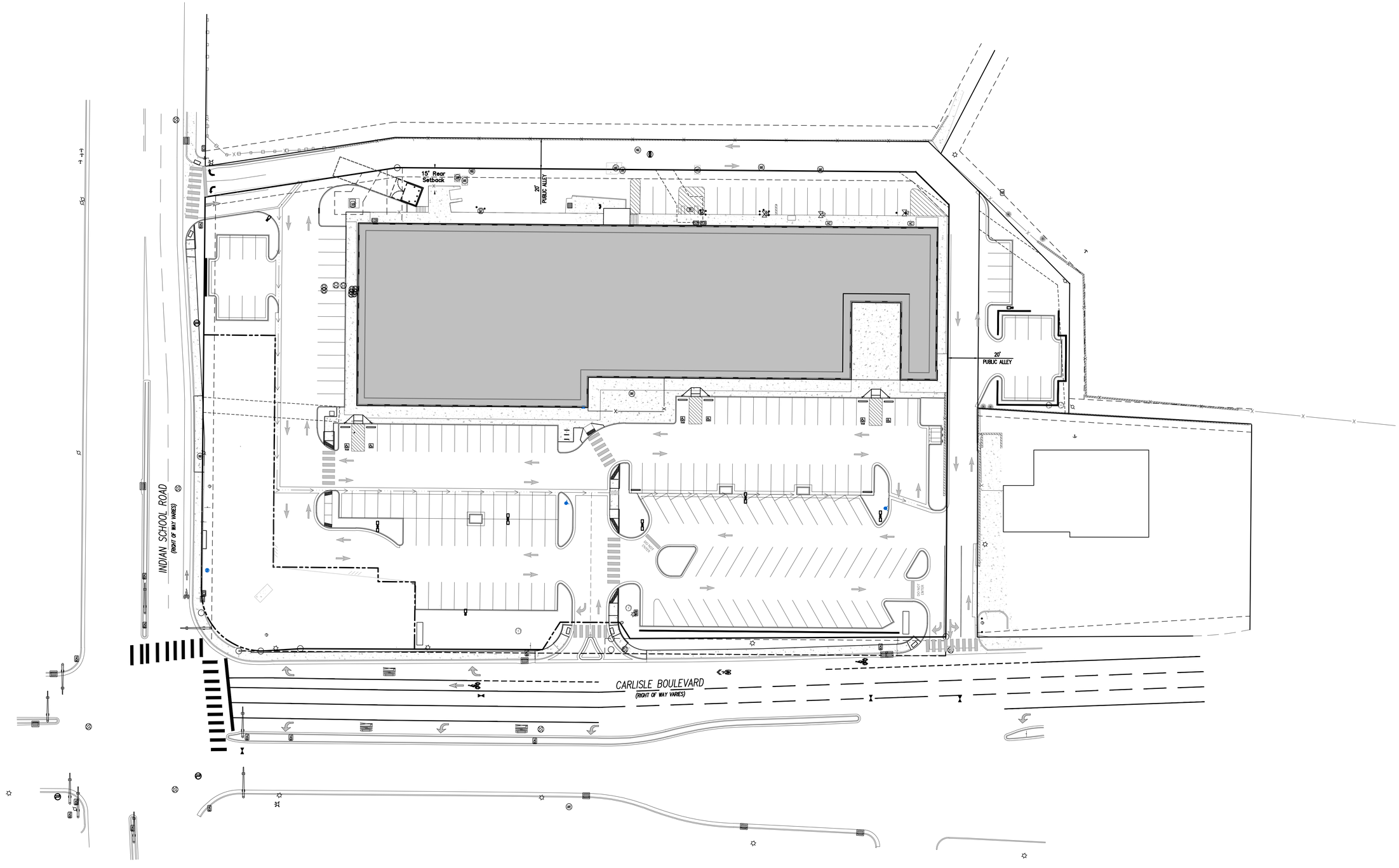
- Under total future 2026 and 2036 traffic conditions with development of the site, the signalized intersection within the study area would operate consistent with background conditions.

- Under total future 2026 and 2036 traffic conditions with development of the site, movements for the unsignalized intersections within the study area would operate generally consistent with background conditions with the exception of the southbound left movement at the Indian School/S Site Access intersection is forecasted to operate at LOS “F” during the PM peak hours with volume/capacity (V/C) ratios below 1.0 suggesting additional capacity available. These delays are typical for unsignalized left turn movements and are often over reported by the software. A review of peak hour signal warrants suggest that signal improvements would not be warranted.

Recommendations

- It is recommended that the Applicant provide access consistent with the site plan contained herein including:
    - Restriping southbound Carlilse Blvd along the property frontage to narrow the southbound drive lanes and provide a bike lane in conformance with the Mid-Region Council of Governments (MRCOG) Long Range Bikeway System plan. The narrowing of drive lanes will reduce vehicle speeds and improve safety of the roadway.
    - Modifications to the full access along Carlisle Blvd including 20’ flowline radius return on the southwest quadrant and associated modifications to the southern pedestrian ramp to align with the northern pedestrian ramp and revised return curb line. Both operational and safety analysis of this access indicate full movement should be supported.
    - Improvements to the RIRO access along Carlisle Blvd including shifting the access north and improved return radii of 25’, and RIRO channelizing island.
    - Existing sidewalk attached to curb along Carlisle Blvd to remain with no landscape buffer between curb and sidewalk due to existing light poles. Proposed bike lane will provide buffering between vehicles and pedestrians. Landscaping to be provided west of the sidewalk.
    - Closing existing RIRO access along Indian School Rd between the full movement access along Indian School Rd and the Indian School Rd/Carlisle Blvd intersection. This removes conflict points in the study area to improve safety.
    - Modifications to full access on Indian School Rd including 15’ flowline radius return on the east portion of the access and associated modification to the eastern pedestrian ramp.
    - Existing sidewalk attached to curb along Indian School Rd to remain with no landscape buffer between curb and sidewalk due to existing power poles & ROW constraints. Existing bike lane provides buffering between vehicles and pedestrians. Landscaping to be provided to the north of sidewalk.

APPENDIX A – Full Sized Conceptual Plan and Striping Exhibit



CARLISILE FORTY

Maestas Development Group

CONCEPTUAL SITE PLAN

09.30.2024

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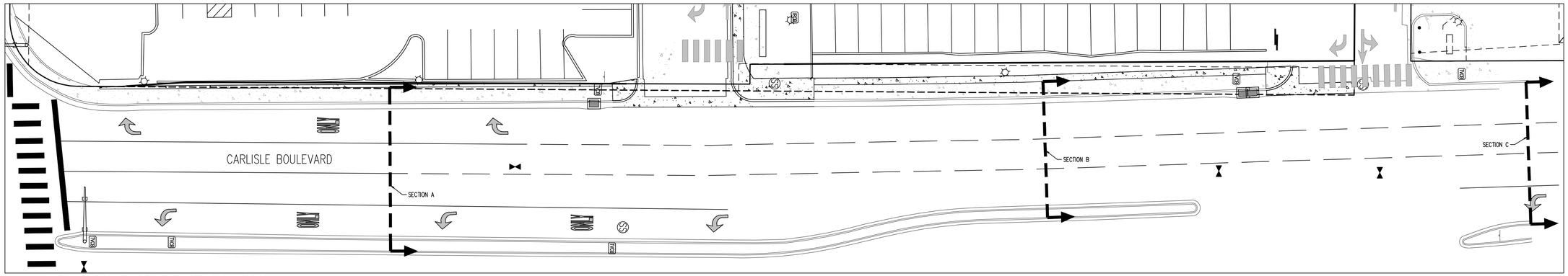
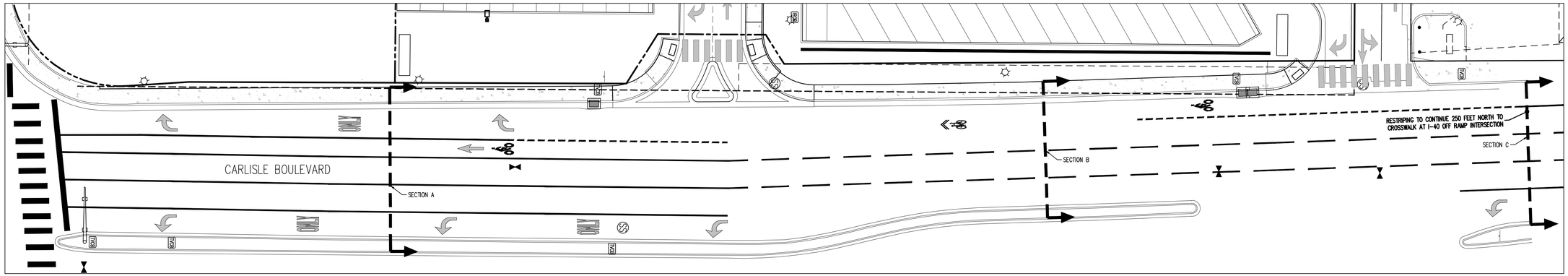


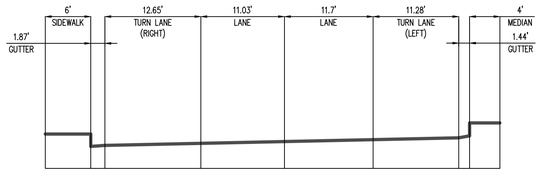
CARLISLE BOULEVARD NE: EXISTING CONDITION

SCALE: 1" = 20'



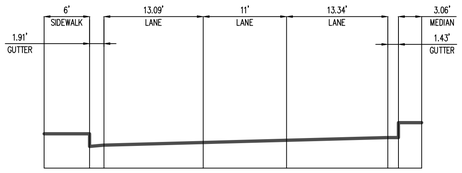
CARLISLE BOULEVARD NE: PROPOSED CONDITION

SCALE: 1" = 20'



CARLISLE BOULEVARD NE: EXISTING CONDITION – SECTION A

SCALE: NOT TO SCALE



CARLISLE BOULEVARD NE: EXISTING CONDITION – SECTION B

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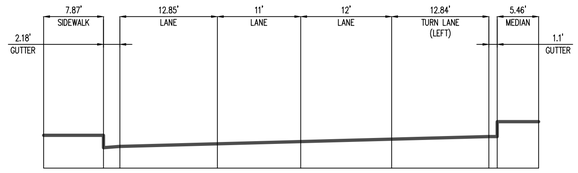

CARLISLE BOULEVARD NE: EXISTING CONDITION – SECTION C

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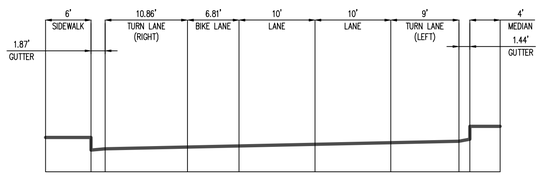

CARLISLE BOULEVARD NE: PROPOSED CONDITION – SECTION A

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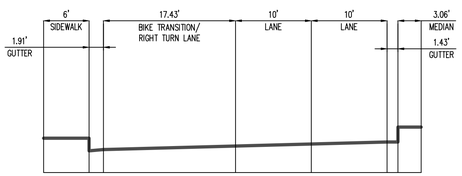

CARLISLE BOULEVARD NE: PROPOSED CONDITION – SECTION B

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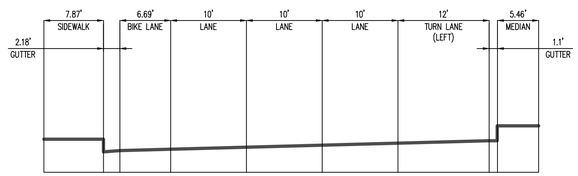


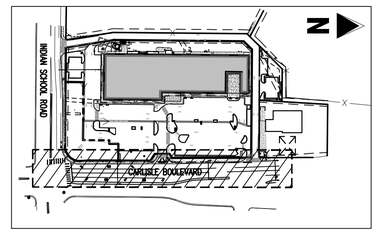
CARLISLE BOULEVARD NE: PROPOSED CONDITION – SECTION C

SCALE: NOT TO SCALE

N

0 10 20

SCALE: 1"=20'



SITE LEGEND

SCALE: 1" = 200'

Galloway
5500 Greenwood Plaza Blvd., Suite 200
Greenwood Village, CO 80111
303.770.8884
GallowayUS.com

CONSULTANTS

BENCH MARKS

SEAL

PRELIMINARY
NOT FOR CONSTRUCTION

NO.	DATE	DESCRIPTION	BY
		AS-BUILT INFORMATION	
		CONTRACTOR:	
		WORK STAKED BY: DATE:	
		INSPECTOR'S ACCEPTANCE BY: DATE:	
		FIELD VERIFICATION BY: DATE:	
		DRAWINGS CORRECTED BY: DATE:	

DESIGNED BY:	DDJ
DRAWN BY:	NSM
CHECKED BY:	DDJ
DATE	09/30/24

INDIAN PLAZA, UNIT 1
CITY OF ALBUQUERQUE
2101 CARLISLE BOULEVARD NE

CARLISLE BLVD. STRIPING EXHIBIT

MAESTAS DEVELOPMENT GROUP

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	ZONE MAP NO.
		CITY PROJECT NO.
		SHEET NO.

DRB CASE NO.

811

CALL NM ONE-CALL
SYSTEM SEVEN (7) DAYS
PRIOR TO ANY EXCAVATION

H:\MAMaestas Development Group\ABQ_Albuquerque_MAEDG_Carlisle 4500\25Y7JDJ\dwg\MAEDG_CARLISLE STRIPING SECTION.dwg - Tuesday, March 26, 2024 9:05:20 AM

APPENDIX B – Base Assumptions Form

City of Albuquerque

Planning Department
Development Review Services Division

Traffic Scoping Form (REV 12/2020)

Project Title: Carlisle Forty Building Permit #: _____ Hydrology File #: _____
Zone Atlas Page: H-16 DRB#: _____ EPC#: _____ Work Order#: _____
Legal Description: A portion of Tract A and all of Tracts B & C, Unit One, Indian Plaza
City Address: 2101 Carlisle Blvd NE, Albuquerque, NM 87110

Applicant: Carlisle & I40, LLC Contact: Wes Butero
Address: 7620 Jefferson St NE, Albuquerque, NM 87109
Phone#: 505-338-2149 Fax#: _____ E-mail: wes@mdgrealestate.com

Development Information

Build out/Implementation Year: 2026 Current/Proposed Zoning: MX-L

Project Type: New: ( ) Change of Use: ( ) Same Use/Unchanged: ( ) Same Use/Increased Activity: (X)

Proposed Use (mark all that apply): Residential: ( ) Office: ( ) Retail: (X) Mixed-Use: ( )

Describe development and Uses:
Redevelopment of existing building for retail/restaurant/commercial uses and addition of a pad site

Days and Hours of Operation (if known): TBD

Facility

Building Size (sq. ft.): 42,845

Number of Residential Units: N/A

Number of Commercial Units: 2 buildings, one multi-tenant (8-12 tenants) and one pad site

Traffic Considerations

Expected Number of Daily Visitors/Patrons (if known):* 4,573

Expected Number of Employees (if known):* _____

Expected Number of Delivery Trucks/Buses per Day (if known):* _____

Trip Generations during PM/AM Peak Hour (if known):* 501/191

Driveway(s) Located on: Street Name Carlisle Blvd NE (2 existing) & Indian School (1 existing, 1 being removed)

Adjacent Roadway(s) Posted Speed: Street Name Carlisle Blvd NE Posted Speed 35 mph

Street Name Indian School Road NE Posted Speed 35 mph

** If these values are not known, assumptions will be made by City staff. Depending on the assumptions, a full TIS may be required*

Roadway Information (adjacent to site)

Comprehensive Plan Corridor Designation/Functional Classification: Carlisle: Major Transit Corridor, Minor Arterial; Indian School: No Corridor, Minor Arterial
(arterial, collecdtor, local, main street)

Comprehensive Plan Center Designation: None
(urban center, employment center, activity center)

Jurisdiction of roadway (NMDOT, City, County): City of Albuquerque

Adjacent Roadway(s) Traffic Volume: Carlisle: 32,163 AWDT; Indian School: 11,638 AWDT

Volume-to-Capacity Ratio: (if applicable) Carlisle:AM: 0.59 / PM: 0.66; Indian School:AM: 0.21 / PM: 0.24

Adjacent Transit Service(s): Bus Route: Montgomery-Carlisle & Indian School Commuter

Nearest Transit Stop(s): Carlisle @ Indian School Stop ID 6226; Carlisle @ Indian School Stop ID 6276

Is site within 660 feet of Premium Transit?: No

Current/Proposed Bicycle Infrastructure: Bike Lanes on Indian School (existing) and Carlisle (proposed)
(bike lanes, trails)

Current/Proposed Sidewalk Infrastructure: Sidewalks along Indian School (existing) and Carlisle (existing)

Relevant Web-sites for Filling out Roadway Information:

City GIS Information: http://www.cabq.gov/gis/advanced-map-viewer

Comprehensive Plan Corridor/Designation:https://abc-zone.com/document/abc-comp-plan-chapter-5-land-use (map after Page 5-5)

Road Corridor Classification: https://www.mrcog-nm.gov/DocumentCenter/View/1920/Long-Range-Roadway-System-LRRS-PDF?bidId=

Traffic Volume and V/C Ratio: https://www.mrcog-nm.gov/285/Traffic-Counts and https://public.mrcog-nm.gov/taqa/

Bikeways: http://documents.cabq.gov/planning/adopted-longrange-plans/BTFP/Final/BTFP%20FINAL_Jun25.pdf (Map Pages 75 to 81)

TIS Determination

Note: Changes made to development proposals / assumptions, from the information provided above, will result in a new TIS determination.

Traffic Impact Study (TIS) Required: Yes [✓] No [ ] Borderline [ ]

Thresholds Met? Yes [✓] No [ ]

Mitigating Reasons for Not Requiring TIS: Previously Studied: [ ]

Notes:

5/7/2024

TRAFFIC ENGINEER DATE

Submittal

The Scoping Form must be submitted as part of any building permit application, DRB application, or EPC application. See the Development Process Manual Chapter 7.4 for additional information.

Submit by email to the City Traffic Engineer mgrush@cabq.gov . Call 924-3362 for information.

Site Plan/Traffic Scoping Checklist

Site plan, building size in sq. ft. (show new, existing, remodel), to include the following items as applicable:

1. Access -- location and width of driveways
2. Sidewalks (Check DPM and IDO for sidewalk requirements. Also, Centers have wider sidewalk requirements.)
3. Bike Lanes (check for designated bike routes, long range bikeway system) *(check MRCOG Bikeways and Trails in the 2040 MTP map)*
4. Location of nearby multi-use trails, if applicable *(check MRCOG Bikeways and Trails in the 2040 MTP map)*
5. Location of nearby transit stops, transit stop amenities (eg. bench, shelter). Note if site is within 660 feet of premium transit.
6. Adjacent roadway(s) configuration (number of lanes, lane widths, turn bays, medians, etc.)
7. Distance from access point(s) to nearest adjacent driveways/intersections.
8. Note if site is within a Center and more specifically if it is within an Urban Center.
9. Note if site is adjacent to a Main Street.
10. Identify traffic volumes on adjacent roadway per MRCOG information. If site generates more than 100 vehicles per hour, identify v/c ratio on this form.



DEVELOPER

MAESTAS DEVELOPMENT GROUP
7620 JEFFERSON NE
ALBUQUERQUE, NM 87109
505-858-0001

SITE DATA

TRACT A-1	
SITE AREA	±2.96 AC
EXISTING BUILDING	
MULTI-TENANT	35,758 SF
EXPANSION AREA MAIN FLOOR	6,561 SF
UNOCCUPIED BASEMENT	11,700 SF
OVERALL TOTAL	54,019 SF
PARKING	179 SPACES
TRACT B	
SITE AREA	±0.16 AC
PARKING	11 SPACES
TRACT C-1	
SITE AREA	±0.54 AC
QSR	800 SF
PARKING	14 SPACES
OVERALL TOTALS	
SITE AREA	±3.66 AC
BUILDING AREA	
OCCUPIED	36,558 SF
EXPANSION & UNOCCUPIED	18,261 SF
TOTAL	54,819 SF
PARKING	204 SPACES
RATIO	204 SPA / 36,558 SF = 5.6 / 1,000

NOTES

SITE PLAN PREPARED WITHOUT BENEFIT OF TITLE OPINION, DEED RESTRICTION, OR SURVEY. SITE SUBJECT TO CHANGE PENDING ALL STATE AND CITY ORDINANCES OR DEED RESTRICTIONS. BUILDING AND SITE SIGN LOCATION, SQUARE FOOTAGE, AND TYPE SUBJECT TO CHANGE PENDING ALL STATE AND CITY ORDINANCES OR DEED RESTRICTIONS.

ALL DIMENSIONS SHOWN ARE TO FACE OF CURB AND/OR FACE OF STRUCTURE.

0 30' 60' NORTH

SCALE: 1" = 60'

ALBUQUERQUE, NEW MEXICO

CARLISLE & I-40

PROPOSED SITE PLAN

03/18/2024 **1.11E**

Commercial Site Plan, LLC - v1.9(2-NM ALB_2103 Carlisle NE.dwg

Table 1

Carlisle Forty

Site Trip Generation

Land Use	Land Use Code	Amount	Units	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Average Daily Trips
Proposed [1]										
Fast-Food Restaurant w Drive-Through and No Indoor Seating	935	1	LANES	20	23	43	31	29	60	600
Pass-by's (0%AM / 31%PM)				*0*	*0*	*0*	*(10)*	*(9)*	*(19)*	*(186)*
Net New Trips				**20**	**23**	**43**	**21**	**20**	**41**	**414**
Shopping Plaza (40-150k) - Supermarket	821	42,045	SF	92	56	148	212	229	441	3,973
Pass-by's (0%AM / 40%PM)				*0*	*0*	*0*	*(85)*	*(91)*	*(176)*	*(1,589)*
Net New Trips				**92**	**56**	**148**	**127**	**138**	**265**	**2,384**
Total				112	79	191	243	258	501	4,573
Pass-by's Total				*0*	*0*	*0*	*(95)*	*(100)*	*(195)*	*(1,775)*
Net Total				**112**	**79**	**191**	**148**	**158**	**306**	**2,798**

Note(s):

(1) Trip generation based on the Institute of Transportation Engineers' Trip Generation Manual, 11th Edition

APPENDIX C – LOS Descriptions

Level of Service for Signalized Intersections

Level of service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. Specifically, level-of-service (LOS) criteria are stated in terms of the average stopped delay per vehicle for a 15-min analysis period. The criteria are given in Exhibit 16-2. Delay may be measured in the field or estimated using procedures presented later in this chapter. Delay is a complex measure and is dependent on a number of variables, including the quality of progression, the cycle length, the green ratio, and the *v/c* ratio for the lane group in question.

LOS A describes operations with very low delay, up to 10 sec per vehicle. This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

LOS B describes operations with delay greater than 10 and up to 20 sec per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.

Exhibit 16-2. Level-of-Service Criteria for Signalized Intersections

LEVEL OF SERVICE	STOPPED DELAY PER VEHICLE (SEC)
A	$\leq$10.0
B	> 10.0 and $\leq$20.0
C	> 20.0 and $\leq$ 35.0
D	> 35.0 and $\leq$ 55.0
E	> 55.0 and $\leq$ 80.0
F	>80.0

LOS C describes operations with delay greater than 20 and up to 35 sec per vehicle. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

LOS D describes operations with delay greater than 35 and up to 55 sec per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high *v/c* ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

LOS E describes operations with delay greater than 55 and up to 80 sec per vehicle. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high *v/c* ratios. Individual cycle failures are frequent occurrences.

LOS F describes operations with delay in excess of 80 sec per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high *v/c* ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Source: Highway Capacity Manual, 2000. Transportation Research Board, National Research Council

Level of Service Criteria for Stop Sign Controlled Intersections

The level of service criteria are given in Table 17-2. As used here, control delay is defined as the total elapsed time from the time a vehicle stops at the end of the queue until the vehicle departs from the stop line; this time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to the speed of vehicles in queue.

The average total delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. . . .

Table 17-2. Level of Service Criteria for TWSC Intersections

LEVEL OF SERVICE	AVERAGE CONTROL DELAY (sec/veh)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Average total delay less than 10 sec/veh is defined as Level of Service (LOS) A. Follow-up times of less than 5 sec have been measured when there is no conflicting traffic for a minor street movement, so control delays of less than 10 sec/veh are appropriate for low flow conditions. To remain consistent with the AWSC intersection analysis procedure described later in this chapter, a total delay of 50 sec/veh is assumed as the break point between LOS E and F.

The proposed level of service criteria for TWSC intersections are somewhat different from the criteria used in Chapter 16 for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from different kinds of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection. Additionally, several driver behavior considerations combine to make delays at signalized intersections less onerous than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, where drivers on the minor approaches to unsignalized intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized than signalized intersections. For these reasons, it is considered that the total delay threshold for any given level of service is less for an unsignalized intersection than for a signalized intersection. . . .

LOS F exists when there are insufficient gaps of suitable size to allow a side street demand to cross safely through a major street traffic stream. This level of service is generally evident from extremely long total delays experienced by side street traffic and by queueing on the minor approaches. The method, however, is based on a constant critical gap size - that is, the critical gap remains constant, no matter how long the side street motorist waits. LOS F may also appear in the form of side street vehicles' selecting smaller-than-usual gaps. In such cases, safety may be a problem and some disruption to the major traffic stream may result. It is important to note that LOS F may not always result in long queues but may result in adjustments to normal gap acceptance behavior. The latter is more difficult to observe on the field than queueing, which is more obvious.

Source: Highway Capacity Manual, 2000. Transportation Research Board, National Research Council

APPENDIX D – Crash Data & Traffic Counts

Crash Records (WB I-40 Ramps / Carlisle Blvd)

CRASH REPORT NUMBER	CRASH DATE	HOUR OF CRASH	DAY OF WEEK	PRIMARY STREET	SECONDARY STREET	LANDMARK/LOCATION	CRASH SEVERITY	CRASH ANALYSIS
23453102	1/20/2017	8 a.m.	Friday	CARLISLE BLVD NE	I-40	ENTRANCE TO I-40 AND CARLISLE	Property Damage Only Crash	Left Blank
710291820	1/21/2017	7 a.m.	Saturday	CARLISLE BLVD NE	INTERSTATE 40 WB	CARLISLE BLVD AND INTERSTATE 40	Property Damage Only Crash	Other Vehicle - From Opposite Direction/One Left Turn
710401638	1/28/2017	9 p.m.	Saturday	CARLISLE BLVD NE	I 40 FRONTAGE RD		Property Damage Only Crash	Other Vehicle - Both Going Straight/Entering At Angle
710372246	2/17/2017	3 p.m.	Friday	CARLISLE BLVD NE	I 40 WEST-BD FW		Injury Crash	Other Vehicle - From Same Direction/Rear End Collision
710187196	4/11/2017	8 p.m.	Tuesday	CARLISLE BLVD NE	I 40 WEST-BD FW	I 40	Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
710404963	5/22/2017	3 p.m.	Monday	CARLISLE BLVD NE	I 40 WEST-BD FW		Injury Crash	Other Vehicle - From Same Direction/Rear End Collision
23337135	6/19/2017	7 p.m.	Monday	CARLISLE BLVD	I40W RAMP		Property Damage Only Crash	Left Blank
23443644	6/20/2017	2 p.m.	Tuesday	CARLISLE BLVD NE	I-40 W		Property Damage Only Crash	Left Blank
710445433	8/23/2017	11 a.m.	Wednesday	CARLISLE BLVD NE	I 40 WEST-BD FW		Property Damage Only Crash	Other Vehicle - From Same Direction/Rear End Collision
710406941	9/12/2017	3 p.m.	Tuesday	CARLISLE BLVD NE	I 40 WEST-BD FW		Property Damage Only Crash	Other Vehicle - Both Turn Left/Entering At Angle
23454498	9/15/2017	Left Blank	Friday	CARLISLE	I-40	CARLISLE KMART PARKING LOT	Property Damage Only Crash	Left Blank
710446886	10/16/2017	9 a.m.	Monday	CARLISLE BLVD NE	I 40 WEST-BD FW		Injury Crash	Other Vehicle - One Vehicle/Making A U-Turn
710449856	10/17/2017	12 p.m.	Tuesday	CARLISLE BLVD NE	I 40 WEST-BD FW		Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
23436248	10/28/2017	Left Blank	Saturday	CARLISLE BLVD NE			Property Damage Only Crash	Left Blank
710451630	11/4/2017	1 a.m.	Saturday	CARLISLE BLVD NE	I40 WESTBOUND OFFRAMP		Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
710455401	12/15/2017	5 p.m.	Friday	CARLISLE BLVD NE	I-40		Property Damage Only Crash	Other Vehicle - Both Going Straight/Entering At Angle
710383239	3/7/2018	11 p.m.	Wednesday	CARLISLE BLVD NE	INTERSTATE 40	CARLISLE/INTERSTATE 40	Property Damage Only Crash	Fixed Object - Guard Rail at Bridge or Culvert
710454528	5/8/2018	11 p.m.	Tuesday	CARLISLE BLVD NE		I-40 EB FW	Injury Crash	Other Vehicle - Both Going Straight/Entering At Angle
710543698	5/21/2018	4 p.m.	Monday	CARLISLE BLVD NE	I 40 WEST-BD FW		Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
710543947	6/20/2018	5 a.m.	Wednesday	CARLISLE BLVD NE	I 40 WEST-BD FW		Injury Crash	Fixed Object - Unknown/Not Stated
710546022	8/16/2018	8 p.m.	Thursday	CARLISLE BLVD NE	I 40 FRONTAGE RD		Property Damage Only Crash	Other Vehicle - One Left Turn/Entering At Angle
23444722	10/12/2018	3 p.m.	Friday	I-40 W OFF RAMP	CARLISLE AVE		Property Damage Only Crash	Left Blank
710550900	10/18/2018	4 p.m.	Thursday	CARLISLE BLVD NE		INTERSTATE 40	Property Damage Only Crash	Other Vehicle - From Same Direction/Rear End Collision
710391412	10/24/2018	2 p.m.	Wednesday	CARLISLE BLVD NE	I 40 WEST-BD FW	INTERSECTION	Injury Crash	Other Vehicle - One Stopped/Entering At Angle
710445990	11/22/2018	2 a.m.	Thursday	CARLISLE BLVD NE	I 40 WEST-BD FW	ON CARLISLE OVERPASS	Property Damage Only Crash	Fixed Object - Median Raised Or Curb
710554956	11/29/2018	5 p.m.	Thursday	I40 WEST OFF RAMP	CARLISLE BLVD NE		Injury Crash	Other Vehicle - From Same Direction/Rear End Collision
710550071	12/24/2018	6 a.m.	Monday	CARLISLE BLVD NE	I 40 FRONTAGE RD		Property Damage Only Crash	Other Vehicle - One Left Turn/Entering At Angle
710554847	1/10/2019	5 p.m.	Thursday	CARLISLE BLVD NE	I-40 WB ON-RAMP		Property Damage Only Crash	Other Vehicle - From Opposite Direction/One Left Turn
710547619	2/8/2019	7 a.m.	Friday	CARLISLE BLVD NE	I 40 WEST-BD FW		Injury Crash	Other Vehicle - From Same Direction/Rear End Collision
710445774	2/8/2019	11 p.m.	Friday	CARLISLE BLVD NE	I-40 ON RAMP		Injury Crash	Other Vehicle - One Left Turn/Entering At Angle
23479819	3/2/2019	1 p.m.	Saturday	CARLISLE	I-40 WB		Property Damage Only Crash	Left Blank
710457357	3/15/2019	7 p.m.	Friday	I 40 FRONTAGE RD	CARLISLE BLVD NE		Injury Crash	Other Vehicle - From Same Direction/One Stopped
710553498	3/31/2019	11 p.m.	Sunday	CARLISLE BLVD NE	I 40 WEST-BD FW		Property Damage Only Crash	Other Vehicle - Both Going Straight/Entering At Angle
710459475	4/7/2019	6 a.m.	Sunday	CARLISLE BLVD NE			Property Damage Only Crash	Other Vehicle - From Opposite Direction
710455344	4/26/2019	12 a.m.	Friday	CARLISLE BLVD NE	I 40 WEST-BD FW		Injury Crash	Other Vehicle - Both Going Straight/Entering At Angle
710566381	5/10/2019	12 p.m.	Friday	CARLISLE BLVD NE	I40 OVERPASS		Property Damage Only Crash	Other Vehicle - One Left Turn/Entering At Angle
22014460	9/29/2019	7 p.m.	Sunday	2216 CARLISLE	I-40		Property Damage Only Crash	Left Blank
710569384	10/6/2019	1 p.m.	Sunday	CARLISLE BLVD NE	IX 4160		Property Damage Only Crash	Other Vehicle - From Same Direction/Rear End Collision
30260039	10/13/2019	6 a.m.	Sunday	CARLISLE BLVD	I-40		Property Damage Only Crash	Invalid Code
710577589	11/26/2019	2 p.m.	Tuesday	I-40 WEST OFF RAMP	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - From Opposite Direction
30260648	12/18/2019	2 p.m.	Wednesday	CARLISLE BLVD NE	I-40		Property Damage Only Crash	Left Blank
710580340	12/26/2019	7 p.m.	Thursday	CARLISLE BLVD NE	I-40		Property Damage Only Crash	Other Vehicle - From Opposite Direction
30261185	1/10/2020	10 a.m.	Friday	CARLISLE BLVD NE	CORONADO FWY		Property Damage Only Crash	Left Blank
30261722	1/28/2020	6 a.m.	Tuesday	CARLISLE BLVD NE	BRIDGE BLVD SW		Property Damage Only Crash	Left Blank

Crash Records (WB I-40 Ramps / Carlisle Blvd)

CRASH REPORT NUMBER	CRASH DATE	HOUR OF CRASH	DAY OF WEEK	PRIMARY STREET	SECONDARY STREET	LANDMARK/LOCATION	CRASH SEVERITY	CRASH ANALYSIS
30261955	2/6/2020	Left Blank	Thursday	CARLISLE BLVD	I-40 OR RAMP RB		Property Damage Only Crash	Other Vehicle - From Opposite Direction
30261964	2/12/2020	6 a.m.	Wednesday	CARLISLE	I-40		Property Damage Only Crash	Other Vehicle - From Same Direction/Rear End Collision
30263306	4/16/2020	7 p.m.	Thursday	CARLISLE	I-40		Property Damage Only Crash	Invalid Code
710582757	5/7/2020	9 a.m.	Thursday	CARLISLE BLVD NE	INTERSTATE 40		Property Damage Only Crash	Other Vehicle - One Left Turn/Entering At Angle
30263744	5/31/2020	1 p.m.	Sunday	I-40 W RAMP AT CARLISLE	CARLISLE		Property Damage Only Crash	Other Vehicle - From Opposite Direction
30144986	7/8/2020	7 p.m.	Wednesday	CARLISLE BLVD	I-40 WESTBOUND ON RAMP		Property Damage Only Crash	Other Vehicle - From Opposite Direction
30279460	7/14/2020	3 p.m.	Tuesday	CARLISLE BLVD NE	NORTH I-40 AND CARLISLE		Injury Crash	Other Vehicle - From Opposite Direction
710581563	8/1/2020	10 p.m.	Saturday	CARLISLE BLVD NE	I 40 WEST-BD FW	I-40 OFF RAMP	Injury Crash	Other Vehicle - From Opposite Direction
710762577	8/26/2020	9 a.m.	Wednesday	CARLISLE BLVD NE	I 40 FRONTAGE RD	CARLISLE BLVD/I-40 EB ON-RAMP	Injury Crash	Left Blank
710580418	9/8/2020	5 p.m.	Tuesday	CARLISLE BLVD NE	I 40 WEST-BD FW		Property Damage Only Crash	Left Blank
710768217	11/17/2020	10 a.m.	Tuesday	CARLISLE BLVD NE	I 40 WEST-BD FW		Property Damage Only Crash	Left Blank
30281526	11/20/2020	12 p.m.	Friday	CARLISLE	I-40		Property Damage Only Crash	Invalid Code
30283339	3/16/2021	10 p.m.	Tuesday	CARLISLE BLVD	I-40		Property Damage Only Crash	Invalid Code
30283603	3/22/2021	3 p.m.	Monday	CARLISLE BLVD	I-40 W		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710581264	4/14/2021	11 p.m.	Wednesday	CARLISLE BLVD NE	I 40 WEST-BD FW		Property Damage Only Crash	Left Blank
30294869	4/21/2021	1 p.m.	Wednesday	CARLISLE	I-40 WB		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710782269	5/3/2021	4 p.m.	Monday	CARLISLE BLVD NE	I 40 WEST-BD FW		Property Damage Only Crash	Left Blank
710783105	5/13/2021	12 p.m.	Thursday	CARLISLE BLVD NE	I 40 WEST-BD FW	BLAKES LOTABURGER	Property Damage Only Crash	Left Blank
710788656	5/27/2021	5 p.m.	Thursday	CARLISLE BLVD NE	I 40 WEST-BD FW		Injury Crash	Left Blank
30295809	5/27/2021	9 p.m.	Thursday	I-40 OFF RAMP WB/CARLISLE	I40/CARLISLE	RADISON HOTEL	Property Damage Only Crash	Invalid Code
710788659	6/2/2021	2 p.m.	Wednesday	CARLISLE BLVD NE	I 40 WEST-BD FW		Property Damage Only Crash	Left Blank
30295615	6/26/2021	Left Blank	Saturday	CARLISLE RD	OVER PASS 140		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710783860	7/8/2021	3 p.m.	Thursday	CARLISLE BLVD NE	I 40 WEST-BD FW		Injury Crash	Left Blank
710790000	7/8/2021	4 p.m.	Thursday	CARLISLE BLVD NE	I 40 WEST-BD FW		Injury Crash	Left Blank
710773082	8/1/2021	5 p.m.	Sunday	CARLISLE BLVD NE	I 40 WEST-BD FW		Injury Crash	Left Blank
710794835	8/14/2021	9 p.m.	Saturday	CARLISLE BLVD NE	I 40 WEST-BD FW		Property Damage Only Crash	Left Blank
30298135	8/24/2021	4 p.m.	Tuesday	CARLISLE NE + I40	I-40		Property Damage Only Crash	Other Vehicle - From Opposite Direction
30298553	9/23/2021	11 p.m.	Thursday	CARLISLE	I-40		Property Damage Only Crash	Other Vehicle - From Opposite Direction
30298606	9/28/2021	1 p.m.	Tuesday	C CARLE NEAR 40 FREEWAY	CONSTITUTION		Property Damage Only Crash	Other Vehicle - From Opposite Direction
30298702	10/2/2021	11 a.m.	Saturday	I-40 OFF RAMP	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710874425	1/13/2022	4 p.m.	Thursday	CARLISLE BLVD NE	I-40 WEST-BD FW		Injury Crash	Left Blank
30313057	4/2/2022	7 p.m.	Saturday	CARLISLE BLVD NE	I-40		Property Damage Only Crash	Left Blank
710889036	4/20/2022	1 p.m.	Wednesday	CARLISLE BLVD NE	I-40 WEST-BD FW		Property Damage Only Crash	Left Blank
710894827	5/5/2022	1 p.m.	Thursday	CARLISLE BLVD NE	I-40 WEST-BD FW		Property Damage Only Crash	Left Blank
710649507	5/20/2022	3 p.m.	Friday	CARLISLE BLVD NE		I40 WB OFF RAMP	Property Damage Only Crash	Left Blank
30313406	6/7/2022	Invalid Code	Tuesday	CARLISLE	I-40		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710896271	6/10/2022	6 a.m.	Friday	CARLISLE BLVD NE	I-10 WEST-BD FW		Property Damage Only Crash	Left Blank
710911714	8/19/2022	9 p.m.	Friday	CARLISLE BLVD NE	I-40 WEST-BD FW		Injury Crash	Left Blank
710911724	8/28/2022	7 p.m.	Sunday	CARLISLE BLVD NE	I-40 WB ON RAMP		Property Damage Only Crash	Left Blank
710915876	10/11/2022	6 a.m.	Tuesday	CARLISLE BL NE	I-40 WB ON RAMP		Property Damage Only Crash	Left Blank
710904632	10/23/2022	11 a.m.	Sunday	CARLISLE BLVD NE	I-40 WEST-BD FW		Property Damage Only Crash	Left Blank

Crash Records (EB I-40 Ramps / Carlisle Blvd)

CRASH REPORT NUMBER	CRASH DATE	HOUR OF CRASH	DAY OF WEEK	PRIMARY STREET	SECONDARY STREET	LANDMARK/LOCATION	CRASH SEVERITY	CRASH ANALYSIS
710371708	1/26/2017	1 a.m.	Thursday	CARLISLE BLVD NE	I 40 FRONTAGE RD		Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
710364281	1/29/2017	7 p.m.	Sunday	CARLISLE BLVD NE	I 40 FRONTAGE RD	CARLISLE BLVD NE/ I 40 OFF RAMP	Property Damage Only Crash	Other Vehicle - From Opposite Direction/One Left Turn
710401388	1/31/2017	3 p.m.	Tuesday	CARLISLE BLVD NE		I 40 EB ON RAMP	Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
710370802	2/3/2017	6 p.m.	Friday	I-40 E OFFRAMP	CARLISLE BLVD NE		Injury Crash	Other Vehicle - From Same Direction/Both Going Straight
710400907	2/28/2017	7 a.m.	Tuesday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Other Vehicle - One Left Turn/Entering At Angle
710373185	3/6/2017	12 p.m.	Monday	CARLISLE BLVD NE	I 40 EAST-BD FW	LIGHT POST ON SOUTH EAST CORNER	Injury Crash	Other Vehicle - One Left Turn/Entering At Angle
710365831	3/14/2017	7 a.m.	Tuesday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Other Vehicle - Both Turn Right/Entering At Angle
710368807	3/14/2017	10 p.m.	Tuesday	CARLISLE BLVD NE	I 40 EAST-BD FW		Injury Crash	Other Vehicle - From Same Direction/Rear End Collision
710403240	3/15/2017	6 a.m.	Wednesday	CARLISLE BLVD SE	I 40 EAST-BD FW		Property Damage Only Crash	Other Vehicle - One Left Turn/Entering At Angle
23440222	4/8/2017	Left Blank	Saturday	CARLISLE	I-40 AND CARLISLE		Property Damage Only Crash	Left Blank
23443553	4/15/2017	1 p.m.	Saturday	CARLISLE BLVD NE			Property Damage Only Crash	Left Blank
710282108	4/15/2017	6 p.m.	Saturday	CARLISLE BLVD NE	I 40 EAST-BD FW		Injury Crash	Other Vehicle - One Left Turn/Entering At Angle
23434254	4/22/2017	4 p.m.	Saturday	CARLISLE	I-40	NEAR WHOLE FOODS	Property Damage Only Crash	Left Blank
23449066	6/7/2017	12 p.m.	Wednesday	CARLISLE BLVD NE SO. OF I-40	I-40		Property Damage Only Crash	Left Blank
710408390	6/14/2017	7 a.m.	Wednesday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Fixed Object - Median Raised Or Curb
710400918	6/17/2017	3 p.m.	Saturday	CARLISLE BLVD NE	I 40 EAST-BD FW		Injury Crash	Other Vehicle - From Same Direction/Both Going Straight
710400732	7/8/2017	12 p.m.	Saturday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Other Vehicle - Both Going Straight/Entering At Angle
23441904	7/15/2017	3 p.m.	Saturday	I40 AND CARLISLE EXIT			Property Damage Only Crash	Left Blank
710291002	7/25/2017	5 p.m.	Tuesday	CARLISLE	INTERSTATE 40	MENAUL AVE	Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
23450972	8/8/2017	7 a.m.	Tuesday	CARLISLE SB	I-40		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710278731	8/22/2017	7 p.m.	Tuesday	CARLISLE BLVD NE	I 40 EAST-BD FW		Injury Crash	Other Vehicle - Both Going Straight/Entering At Angle
710442653	8/25/2017	4 p.m.	Friday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Other Vehicle - From Same Direction/Sideswipe Collision
710277562	8/31/2017	4 a.m.	Thursday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Fixed Object - Median Raised Or Curb
710445199	9/1/2017	5 p.m.	Friday	CARLISLE BLVD NE		CARLISLE AND I4O EAST ONRAMP	Property Damage Only Crash	Other Vehicle - Both Going Straight/Entering At Angle
710399326	9/9/2017	6 p.m.	Saturday	CARLISLE BLVD SE	I 40 FRONTAGE RD		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710446728	9/15/2017	1 p.m.	Friday	CARLISLE BLVD NE	I 40 EAST-BD FW	CARLISLE BLVD NE/I-40 EAST- BD ON RAMP	Injury Crash	Vehicle Struck Pedalcyclist Head On
23454649	10/3/2017	10 p.m.	Tuesday	CARLISLE	I-40		Property Damage Only Crash	Left Blank
710448537	10/20/2017	9 p.m.	Friday	CARLISLE BLVD NE	I 40 FRONTAGE RD		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710444104	10/21/2017	4 a.m.	Saturday	CARLISLE BLVD NE	R-I40/CARLISLE BLVD-NE		Injury Crash	Other Vehicle - One Left Turn/Entering At Angle
710372020	10/30/2017	1 p.m.	Monday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Other Vehicle - One Left Turn/Entering At Angle
23454406	11/1/2017	5 p.m.	Wednesday	CARLISLE AND I-40	CARLISLE AND I-40		Property Damage Only Crash	Left Blank
710448752	11/11/2017	2 p.m.	Saturday	CARLISLE BLVD NE	CORONADO FWY		Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
23453822	12/8/2017	1 p.m.	Friday	CARLISLE BLVD NE	I-40 EAST BOUND ON RAMP		Property Damage Only Crash	Left Blank
710457863	1/26/2018	1 p.m.	Friday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
710459693	2/20/2018	8 a.m.	Tuesday	I-40 EB OFFRAMP	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - From Same Direction/Rear End Collision
710456928	3/22/2018	12 p.m.	Thursday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
710452388	4/7/2018	11 p.m.	Saturday	CARLISLE BLVD NE	I 40 EAST-BD FW	CARLISLE BLVD NE / I40 EB	Property Damage Only Crash	Other Vehicle - Both Going Straight/Entering At Angle
710541974	5/13/2018	1 p.m.	Sunday	CARLISLE BLVD SE	I 40 EAST-BD FW		Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
710543556	5/21/2018	12 p.m.	Monday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Other Vehicle - One Left Turn/Entering At Angle
710459906	5/28/2018	5 p.m.	Monday	CARLISLE BLVD SE	I 40 EAST-BD FW		Injury Crash	Other Vehicle - From Opposite Direction/One Left Turn
710443139	7/16/2018	8 p.m.	Monday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Other Vehicle - From Opposite Direction/Sideswipe Collision
710407299	7/16/2018	10 p.m.	Monday	CARLISLE BLVD NE	I-40 OFF RAMP		Injury Crash	Other Vehicle - Both Going Straight/Entering At Angle
710546189	7/31/2018	10 a.m.	Tuesday	CARLISLE BLVD NE	I-40 EAST ON-RAMP		Property Damage Only Crash	Other Vehicle - One Right Turn/Entering At Angle
710545617	7/31/2018	10 p.m.	Tuesday	CARLISLE BLVD NE	I-40 OFF-RAMP		Property Damage Only Crash	Other Vehicle - One Left Turn/Entering At Angle

Crash Records (EB I-40 Ramps / Carlisle Blvd)

CRASH REPORT NUMBER	CRASH DATE	HOUR OF CRASH	DAY OF WEEK	PRIMARY STREET	SECONDARY STREET	LANDMARK/LOCATION	CRASH SEVERITY	CRASH ANALYSIS
710389266	8/31/2018	6 p.m.	Friday	CARLISLE BLVD NE	I 40	I 40	Property Damage Only Crash	Other Vehicle - Both Going Straight/Entering At Angle
710543106	9/29/2018	9 a.m.	Saturday	CARLISLE BLVD NE	I-40		Injury Crash	Other Vehicle - One Left Turn/Entering At Angle
710453121	10/26/2018	7 a.m.	Friday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
710550952	11/13/2018	10 p.m.	Tuesday	CARLISLE BLVD NE	I 40 FRONTAGE RD		Property Damage Only Crash	Other Vehicle - One Left Turn/Entering At Angle
710548354	11/20/2018	4 a.m.	Tuesday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Other Vehicle - Both Going Straight/Entering At Angle
23386477	12/6/2018	10 a.m.	Thursday	CARLISLE	EB FREEWAY ENTRANCE		Property Damage Only Crash	Left Blank
710557006	12/18/2018	7 p.m.	Tuesday	CARLISLE BLVD NE	I 40 ON RAMP		Property Damage Only Crash	Other Object - All Other
710549295	2/8/2019	9 a.m.	Friday	CARLISLE BLVD SE	I 40 EAST-BD FW		Property Damage Only Crash	Other Vehicle - From Same Direction/Sideswipe Collision
23426240	2/16/2019	2 p.m.	Saturday	CARLISLE BLVD NE	I-40		Property Damage Only Crash	Left Blank
710561259	2/27/2019	2 p.m.	Wednesday	CARLISLE BLVD NE	CARLISLE I-40FW OVERPASS		Property Damage Only Crash	Other Vehicle - Both Going Straight/Entering At Angle
710563137	3/22/2019	2 p.m.	Friday	CARLISLE BLVD NE		OF I 40 EB OFF RAMP	Property Damage Only Crash	Other Vehicle - From Same Direction/Sideswipe Collision
23481688	3/29/2019	10 a.m.	Friday	CARLISLE BLVD NE			Property Damage Only Crash	Left Blank
710611504	4/5/2019	7 a.m.	Friday	CARLISLE AVE NE	PROSPECT AVE		Injury Crash	Other Vehicle - From Opposite Direction/One Left Turn
710565210	4/15/2019	4 p.m.	Monday	CARLISLE BLVD SE	I 40 EAST-BD FW		Property Damage Only Crash	Other Vehicle - From Same Direction/Rear End Collision
710562270	4/15/2019	4 p.m.	Monday	I 40 FRONTAGE RD	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - From Same Direction/Sideswipe Collision
710567692	6/8/2019	2 p.m.	Saturday	I-40 EAST BD FWY OFF RAMP	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - From Same Direction/Sideswipe Collision
23483983	6/18/2019	11 a.m.	Tuesday	CARLISLE BLVD	I-40 OFF RAMP		Property Damage Only Crash	Left Blank
710561551	7/19/2019	6 a.m.	Friday	CARLISLE BLVD NE	IX 4160		Injury Crash	Other Vehicle - From Same Direction/Both Going Straight
30259162	8/8/2019	1 p.m.	Thursday	CARLISLE AND I-40			Property Damage Only Crash	Left Blank
23430819	8/15/2019	1 p.m.	Thursday	CARLISLE BLVD NE	I-40 EXIT SOUTH		Property Damage Only Crash	Left Blank
710575146	9/11/2019	10 a.m.	Wednesday	CARLISLE BLVD NE	EB I40 EXIT RAMP		Injury Crash	Other Vehicle - One Left Turn/Entering At Angle
23467533	9/24/2019	Left Blank	Tuesday	I-40 EB OFF-RAMP	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - From Same Direction/Both Turn Right
710560994	10/11/2019	7 a.m.	Friday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Other Vehicle - Both Going Straight/Entering At Angle
710577502	10/28/2019	10 a.m.	Monday	I-40 EB OFFRAMP	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - Both Turn Right/Entering At Angle
710577578	11/7/2019	4 p.m.	Thursday	CARLISLE BLVD	I-40 OFF RAMP		Injury Crash	Other Vehicle - From Opposite Direction
30260338	11/29/2019	Left Blank	Friday	CARLISLE AND FREEWAY			Property Damage Only Crash	Left Blank
30260493	12/14/2019	10 p.m.	Saturday	CARLISLE BLVD NE			Property Damage Only Crash	Other Vehicle - From Opposite Direction
710581180	1/23/2020	10 p.m.	Thursday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Other Vehicle - One Left Turn/Entering At Angle
710610883	2/16/2020	2 a.m.	Sunday	CARLISLE BLVD.	EB I40 ENTRANCE RAMP		Property Damage Only Crash	Other Vehicle - From Opposite Direction/Both Going Straight
710573129	4/21/2020	10 a.m.	Tuesday	CARLISLE BLVD NE	I 40 EAST-BD FW		Injury Crash	Other Vehicle - From Same Direction/Both Going Straight
710759786	7/25/2020	4 p.m.	Saturday	I40 EB OFFRMP	CARLISLE BL NE		Property Damage Only Crash	Other Vehicle - Both Turn Right/Entering At Angle
710758527	8/7/2020	3 p.m.	Friday	CARLISLE BLVD NE	I40 EBOUND ON RAMP		Injury Crash	Rollover - On The Road
30280041	8/16/2020	2 p.m.	Sunday	CARLISLE BLVD NE	I-40 E		Property Damage Only Crash	Invalid Code
710763505	8/18/2020	6 a.m.	Tuesday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Left Blank
30280604	9/28/2020	9 a.m.	Monday	CARLISLE STREET NE	OFF AT I-40		Property Damage Only Crash	Other Vehicle - From Opposite Direction
30280598	9/28/2020	12 p.m.	Monday	CARLISLE BLVD NE	I-40 EASTBOUND		Property Damage Only Crash	Vehicle On Other Roadway - Not Stated
710576014	10/2/2020	8 p.m.	Friday	I-40/CARLISLE (OFF RAMP)		I-40 EB OFF RAMP AND CARLISLE BLVD. NE	Injury Crash	Left Blank
710773610	1/17/2021	4 p.m.	Sunday	CARLISLE BLVD NE	I 40 EAST-BD FW		Injury Crash	Left Blank
710776912	3/14/2021	6 p.m.	Sunday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Left Blank
710773631	3/26/2021	4 p.m.	Friday	CARLISLE BLVD NE	I 40 EAST-BD FW		Injury Crash	Left Blank
30295209	4/3/2021	4 p.m.	Saturday	CARLISLE I-40 INTERSECTION	I-40		Property Damage Only Crash	Other Vehicle - From Opposite Direction
30294814	4/6/2021	7 p.m.	Tuesday	I-40 (E) ON CARLISLE OFF RAMP	I-40 AND CARLISLE		Property Damage Only Crash	Other Vehicle - From Opposite Direction
30299228	4/15/2021	4 p.m.	Thursday		I-40 CARLISLE OFFRAMP		Property Damage Only Crash	Invalid Code
710785527	4/22/2021	8 p.m.	Thursday	CARLISLE BLVD NE	I 40 EAST-BD FW		Injury Crash	Left Blank

Crash Records (EB I-40 Ramps / Carlisle Blvd)

CRASH REPORT NUMBER	CRASH DATE	HOUR OF CRASH	DAY OF WEEK	PRIMARY STREET	SECONDARY STREET	LANDMARK/LOCATION	CRASH SEVERITY	CRASH ANALYSIS
30295116	5/3/2021	4 p.m.	Monday	CARLISLE	I-40	CARLISLE + I-40E	Property Damage Only Crash	Invalid Code
30295764	5/20/2021	9 a.m.	Thursday	EXIT I-40 EB ONTO CARLISLE			Property Damage Only Crash	Invalid Code
30295948	5/22/2021	6 p.m.	Saturday	CARLISLE BLVD NE	OFFRAMP I-40 EAST		Property Damage Only Crash	Other Vehicle - From Opposite Direction
30295923	6/8/2021	5 p.m.	Tuesday	CARLISLE	CARLISLE AND RAMP		Property Damage Only Crash	Other Vehicle - From Opposite Direction
30294872	6/22/2021	10 a.m.	Tuesday	I-40 CARLISLE OFF RAMP	CARLISLE		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710790365	7/12/2021	7 p.m.	Monday	CARLISLE BLVD NE	I 40 EAST-BD FW		Injury Crash	Left Blank
710645846	7/29/2021	11 a.m.	Thursday	CARLISLE BLVD NE	I 40 EAST-BD FW	CARLISLE BLVD NE AND I-40 EAST MP 160	Property Damage Only Crash	Left Blank
710583362	8/13/2021	7 a.m.	Friday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Left Blank
30299030	9/1/2021	Left Blank	Wednesday	CARLISLE AND I40	CARLISLE		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710639895	9/7/2021	6 p.m.	Tuesday	CARLISLE BLVD NE			Injury Crash	Left Blank
23259928	9/11/2021	2 p.m.	Saturday	CARLISLE & EXIT 160	I-40		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710794652	9/12/2021	8 a.m.	Sunday	CARLISLE BLVD NE	I 40 EAST-BD FW		Property Damage Only Crash	Left Blank
30299194	9/26/2021	1 p.m.	Sunday	CARLISLE AND I-40 OFF RAMP	I-40 CARLISLE AND I-40		Property Damage Only Crash	Left Blank
710637386	9/29/2021	10 a.m.	Wednesday	CARLISLE BLVD NE		INTERSTATE 40	Property Damage Only Crash	Left Blank
710799508	10/15/2021	10 a.m.	Friday	CARLISLE BLVD NE		I 40	Property Damage Only Crash	Left Blank
710788908	11/3/2021	1 p.m.	Wednesday	CARLISLE BLVD NE	R-I40/CARLISLE BLVD-SW		Property Damage Only Crash	Left Blank
30309481	11/3/2021	7 p.m.	Wednesday	CORONADO AVE NE	CARLISLE BLVD NE		Property Damage Only Crash	Invalid Code
710798816	11/18/2021	8 a.m.	Thursday	I40 EB OFFRAMP	CARLISLE BLVD NE		Property Damage Only Crash	Left Blank
710764742	11/21/2021	8 p.m.	Sunday	CARLISLE BLVD NE	I 40 EAST-BD FW	CARLISLE BL NE/I40 EB ON RAMP	Property Damage Only Crash	Left Blank
710881539	2/12/2022	3 p.m.	Saturday	CARLISLE BLVD NE	I-40 EAST-BD FW		Property Damage Only Crash	Left Blank
30312445	2/22/2022	2 p.m.	Tuesday	CARLISLE	I-40		Injury Crash	Left Blank
710795656	2/26/2022	10 a.m.	Saturday	CARLISLE BLVD NE	I-40 EAST-BD FW		Property Damage Only Crash	Left Blank
710646883	3/5/2022	9 p.m.	Saturday	CARLISLE BLVD NE	I-40 EAST-BD FW	I 40 EAST OFF RAMP	Property Damage Only Crash	Left Blank
710882928	3/13/2022	7 p.m.	Sunday	CARLISLE BLVD NE	I-40 FRONTAGE RD	IX 4160	Injury Crash	Left Blank
30323573	5/7/2022	Left Blank	Saturday	CARLISLE BLVD NE	I-40		Property Damage Only Crash	Left Blank
710877255	5/12/2022	9 p.m.	Thursday	CARLISLE BLVD NE	I-40 EAST-BD FW		Injury Crash	Left Blank
30311615	5/16/2022	Left Blank	Monday	CARLISLE	I-40		Property Damage Only Crash	Other Object - Unknown/Not Stated
710893605	6/9/2022	10 p.m.	Thursday	CARLISLE BLVD NE	I-40 EAST-BD FW		Property Damage Only Crash	Left Blank
710903229	6/29/2022	6 a.m.	Wednesday	CARLISLE BLVD NE	I-40 EAST-BD FW		Property Damage Only Crash	Left Blank
710649513	7/11/2022	4 p.m.	Monday	CARLISLE BLVD NE		I40 EB OFF RAMP	Property Damage Only Crash	Left Blank
710911702	8/11/2022	4 p.m.	Thursday	CARLISLE BLVD NE	I-40 EB OFF RAMP		Property Damage Only Crash	Left Blank
711011461	8/18/2022	11 a.m.	Thursday	CARLISLE BLVD NE	I-40 FRONTAGE RD		Property Damage Only Crash	Left Blank
710910983	8/22/2022	4 p.m.	Monday	CARLISLE BLVD NE	I-40 EAST-BD FW		Property Damage Only Crash	Left Blank
30324934	8/26/2022	5 p.m.	Friday	CARLISLE BLVD NE	I-40		Injury Crash	Left Blank
710904507	11/17/2022	6 p.m.	Thursday	I-40 FRONTAGE RD	CARLISLE BLVD NE		Property Damage Only Crash	Left Blank
710918045	11/27/2022	2 p.m.	Sunday	CARLISLE BLVD NE	I-40 EAST-BD FW		Property Damage Only Crash	Left Blank
30325923	11/29/2022	8 a.m.	Tuesday	CARLISLE BLVD	I-40		Property Damage Only Crash	Left Blank
30326288	12/3/2022	7 p.m.	Saturday	CARLISLE EXT E	CARLISLE BLVD NE		Property Damage Only Crash	Left Blank
710918049	12/4/2022	2 p.m.	Sunday	I-40 EAST-BD OFFRAMP	CARLISLE BLVD NE		Property Damage Only Crash	Left Blank
30327082	12/30/2022	10 a.m.	Friday	CARLISLE	I-40		Property Damage Only Crash	Left Blank

Crash Records (N Site Access / Carlisle Blvd)

CRASH REPORT NUMBER	CRASH DATE	HOUR OF CRASH	DAY OF WEEK	PRIMARY STREET	SECONDARY STREET	LANDMARK/LOCATION	CRASH SEVERITY	CRASH ANALYSIS
23443674	7/11/2017	7 p.m.	Tuesday	CARLISLE BLVD NE	I-40 SOUTH	KMART/BURGER KING	Property Damage Only Crash	Left Blank
710459695	2/22/2018	11 a.m.	Thursday	2137 CARLISLE BLVD NE			Injury Crash	Pedestrian Collision - Vehicle Turning Right
23467561	8/21/2019	5 p.m.	Wednesday	CARLISLE BLVD TRAVELING SOUTH			Property Damage Only Crash	Left Blank
710579325	1/14/2020	5 p.m.	Tuesday	CARLISLE BLVD NE	I 40 FRONTAGE RD		Property Damage Only Crash	Other Vehicle - One Vehicle/Stopped Traffic
710903551	7/12/2022	3 p.m.	Tuesday	CARLISLE BLVD NE		IX 4160	Injury Crash	Left Blank

Crash Records (Indian School Rd / Carlisle Blvd)

CRASH REPORT NUMBER	CRASH DATE	HOUR OF CRASH	DAY OF WEEK	PRIMARY STREET	SECONDARY STREET	LANDMARK/LOCATION	CRASH SEVERITY	CRASH ANALYSIS
710363604	1/16/2017	6 p.m.	Monday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE	CARLISLE BLVD @ INDIAN SCHOOL RD	Property Damage Only Crash	Other Vehicle - One Left Turn/Entering At Angle
23440603	1/21/2017	1 p.m.	Saturday	CARLISLE	INDIAN SCHOOL		Property Damage Only Crash	Left Blank
710400869	1/27/2017	11 a.m.	Friday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - Both Going Straight/Entering At Angle
710367893	1/28/2017	11 a.m.	Saturday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Injury Crash	Other Vehicle - From Opposite Direction
710365253	2/5/2017	4 p.m.	Sunday	INDIAN SCHOOL RD NE		CARLISLE BLVDS NE	Property Damage Only Crash	Other Vehicle - All Others/Entering At Angle
23448625	2/6/2017	5 p.m.	Monday	INDIAN SCHOOL RD	CARLISLE BLVD		Property Damage Only Crash	Left Blank
23435101	2/6/2017	6 p.m.	Monday	CARLISLE	INDIAN SCHOOL		Property Damage Only Crash	Left Blank
710408885	2/7/2017	6 a.m.	Tuesday	2019 CARLISLE BLVD NE			Property Damage Only Crash	Other Object - Unknown/Not Stated
710363539	2/7/2017	9 p.m.	Tuesday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - One Left Turn/Entering At Angle
710257789	2/17/2017	9 a.m.	Friday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE	2103 CARLISLE BLVD NE	Property Damage Only Crash	Other Vehicle - Both Going Straight/Entering At Angle
23455925	2/22/2017	4 p.m.	Wednesday	INDIAN SCHOOL NE	CARLISLE		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710400663	2/26/2017	2 p.m.	Sunday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Injury Crash	Other Vehicle - All Others/Entering At Angle
710403126	3/7/2017	3 p.m.	Tuesday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - One Left Turn/Entering At Angle
710402686	3/10/2017	3 p.m.	Friday	CARLISLE BLVD NE		INDIAN SCHOOL RD NE	Property Damage Only Crash	Other Vehicle - All Others/Entering At Angle
23336804	3/18/2017	1 p.m.	Saturday	INDIAN SCHOOL & CARLISLE	CARLISLE		Property Damage Only Crash	Other Vehicle - From Same Direction/Rear End Collision
710367380	3/22/2017	9 a.m.	Wednesday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Injury Crash	Other Vehicle - One Left Turn/Entering At Angle
710404084	4/3/2017	5 p.m.	Monday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Other Vehicle - From Opposite Direction
23449013	5/13/2017	3 p.m.	Saturday	CARISLE	INDIAN SCHOOL RD		Property Damage Only Crash	Left Blank
710407618	6/7/2017	7 a.m.	Wednesday	CARLISLE BLVD NE		INDIAN SCHOOL RD NE	Property Damage Only Crash	Other Vehicle - From Same Direction/Rear End Collision
710401500	6/19/2017	10 p.m.	Monday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Other Vehicle - From Opposite Direction/One Left Turn
23446358	8/3/2017	2 p.m.	Thursday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Left Blank
30143637	8/14/2017	9 a.m.	Monday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Other Vehicle - From Same Direction/Rear End Collision
710441007	9/22/2017	1 p.m.	Friday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Other Vehicle - From Same Direction/One Left Turn
23446566	10/12/2017	9 p.m.	Thursday	CARLISLE	WHOLE FOODS	2103 CARLISLE BLVD NE	Property Damage Only Crash	Left Blank
710400251	10/28/2017	8 p.m.	Saturday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Fixed Object - Light Standard (Light Pole)
710406639	11/21/2017	6 a.m.	Tuesday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE	2019 CARLISLE BLVD NE	Property Damage Only Crash	Fixed Object - Median Raised Or Curb
710447032	12/1/2017	8 p.m.	Friday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
710453169	12/4/2017	1 p.m.	Monday	INDIAN SCHOOL RD NE		CARLISLE BLVD NE	Property Damage Only Crash	Other Vehicle - One Right Turn/Entering At Angle
710441066	12/6/2017	7 a.m.	Wednesday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - Both Turn Left/Entering At Angle
710403757	12/13/2017	12 p.m.	Wednesday	CARLISLE BLVD NE		INDIAN SCHOOL	Property Damage Only Crash	Other Vehicle - From Same Direction/Rear End Collision
710406641	12/18/2017	2 p.m.	Monday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - One Left Turn/Entering At Angle
710278739	12/23/2017	12 a.m.	Saturday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Fixed Object - Light Standard (Light Pole)
710442493	1/7/2018	8 a.m.	Sunday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Injury Crash	Other Vehicle - Both Going Straight/Entering At Angle
710459101	2/2/2018	1 p.m.	Friday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Other Vehicle - From Opposite Direction/One Left Turn
710450165	2/4/2018	3 p.m.	Sunday	INDIAN SCHOOL RD NE	CARLISLE BL NE		Injury Crash	Pedestrian Collision - All Others and Not Known
710370555	2/14/2018	3 p.m.	Wednesday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - Both Going Straight/Entering At Angle
710458926	2/24/2018	10 a.m.	Saturday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE	2113 CARLISLE BLVD NE	Injury Crash	Other Vehicle - Both Going Straight/Entering At Angle
710372026	3/11/2018	3 p.m.	Sunday	CARLISLE BLVD NE			Property Damage Only Crash	Other Vehicle - From Opposite Direction/Sideswipe Collision
710406953	3/19/2018	5 p.m.	Monday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - From Same Direction/All Others
710457428	3/23/2018	7 a.m.	Friday	CARLISLE BLVD NE	INDIAN SCHOOL RD NW		Injury Crash	Other Vehicle - From Same Direction/Both Going Straight
710538034	4/18/2018	2 p.m.	Wednesday	INDIAN SCHOOL RD NW	CARLISLE BLVD NE		Injury Crash	Other Vehicle - Both Going Straight/Entering At Angle
710453948	4/23/2018	2 p.m.	Monday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Other Vehicle - From Same Direction/Rear End Collision
710367006	5/29/2018	1 p.m.	Tuesday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Injury Crash	Other Vehicle - One Right Turn/Entering At Angle
710539947	6/15/2018	11 a.m.	Friday	INDIAN SCHOOL RD NE		CARLISLE BLVD NE	Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight

Crash Records (Indian School Rd / Carlisle Blvd)

CRASH REPORT NUMBER	CRASH DATE	HOUR OF CRASH	DAY OF WEEK	PRIMARY STREET	SECONDARY STREET	LANDMARK/LOCATION	CRASH SEVERITY	CRASH ANALYSIS
710445729	6/25/2018	4 p.m.	Monday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - Both Turn Left/Entering At Angle
710543219	7/6/2018	6 p.m.	Friday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
23475906	7/26/2018	8 a.m.	Thursday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Left Blank
710451866	8/5/2018	2 p.m.	Sunday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE	INTERSECTION	Property Damage Only Crash	Other Vehicle - One Left Turn/Entering At Angle
710443141	8/5/2018	11 p.m.	Sunday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Other Vehicle - From Opposite Direction
710456273	8/9/2018	11 a.m.	Thursday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Other Vehicle - From Same Direction/One Right Turn
710542767	8/14/2018	9 a.m.	Tuesday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - Both Going Straight/Entering At Angle
710547365	8/14/2018	9 a.m.	Tuesday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Other Vehicle - Both Going Straight/Entering At Angle
710447541	8/16/2018	8 p.m.	Thursday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Other Vehicle - Both Going Straight/Entering At Angle
23455644	8/27/2018	8 a.m.	Monday	INDIAN SCHOOL RD	CARLISLE		Property Damage Only Crash	Left Blank
23458397	9/18/2018	8 a.m.	Tuesday	CARLISLE AND INDIAN SCHOOL	INDIAN SCHOOL		Property Damage Only Crash	Left Blank
23444715	10/9/2018	12 p.m.	Tuesday	INDIAN SCHOOL NE	CARLISLE NE		Property Damage Only Crash	Left Blank
710551866	10/30/2018	7 p.m.	Tuesday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Other Vehicle - From Same Direction/Rear End Collision
710446344	11/12/2018	10 a.m.	Monday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Pedestrian Collision - Vehicle Going Straight
23476699	11/21/2018	2 p.m.	Wednesday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Left Blank
23318070	11/26/2018	4 p.m.	Monday	CARLISLE AND INDIAN SCHOOL	WHOLE FOODS		Injury Crash	Left Blank
23476771	12/13/2018	2 p.m.	Thursday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Left Blank
710555198	1/1/2019	12 p.m.	Tuesday	CARISLE NE	INDIAN SCHOOL RD NE		Injury Crash	Other Vehicle - Snow/Ice/Slush
23465274	1/4/2019	2 p.m.	Friday	INDIAN SCHOOL	CARLISLE		Property Damage Only Crash	Left Blank
23483650	1/7/2019	6 a.m.	Monday	INDIAN SCHOOL RD NE	CARLISLE		Property Damage Only Crash	Left Blank
710453076	1/18/2019	6 a.m.	Friday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE	2100 CARLISLE BLVD NE	Injury Crash	Other Vehicle - Both Going Straight/Entering At Angle
23465024	1/22/2019	12 p.m.	Tuesday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Left Blank
710450220	1/24/2019	6 p.m.	Thursday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
710561073	2/2/2019	2 p.m.	Saturday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Pedalcyclist Struck Vehicle
710559120	2/6/2019	8 p.m.	Wednesday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE	OF INTERSECTION	Property Damage Only Crash	Other Vehicle - From Opposite Direction/One Left Turn
710563546	3/9/2019	12 p.m.	Saturday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Other Vehicle - From Same Direction/Rear End Collision
23484196	3/30/2019	3 p.m.	Saturday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Left Blank
710566124	4/29/2019	12 p.m.	Monday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Injury Crash	Other Vehicle - One Vehicle/Stalled In Traffic
23480287	5/3/2019	3 p.m.	Friday	CARLISLE BLVD NE	INDIAN SCHOOL		Property Damage Only Crash	Left Blank
710558347	5/11/2019	4 p.m.	Saturday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Other Vehicle - From Opposite Direction/One Left Turn
710561969	6/1/2019	10 a.m.	Saturday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Other Vehicle - From Same Direction/Rear End Collision
710458523	6/7/2019	10 p.m.	Friday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Other Vehicle - Both Going Straight/Entering At Angle
710554979	6/19/2019	7 a.m.	Wednesday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - Both Going Straight/Entering At Angle
710456494	7/20/2019	12 p.m.	Saturday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Other Vehicle - From Same Direction/Both Going Straight
23466652	7/20/2019	Left Blank	Saturday	INDIAN SCHOOL RD. NE	CARLISLE BLVD NE		Property Damage Only Crash	Left Blank
23484477	7/22/2019	8 p.m.	Monday	CARLISLE INDIAN SCHOOL		CARLISLE & INDIAN SCHOOL	Property Damage Only Crash	Left Blank
710570247	7/31/2019	11 a.m.	Wednesday	INDIAN SCHOOL RD NE	CARLISLE RD NE	CARLISLE AND INDIAN SCHOOL RD NEN	Property Damage Only Crash	Other Vehicle - From Opposite Direction
23480762	8/2/2019	6 p.m.	Friday	CARLISLE	INDIAN SCHOOL		Property Damage Only Crash	Left Blank
23484569	8/20/2019	7 p.m.	Tuesday	CARLISLE BLVD NE-2110	CARLISLE BLVD NE	BURGER KING DRIVEWAY EXIT FOR V2	Property Damage Only Crash	Left Blank
22018087	8/21/2019	5 p.m.	Wednesday	CARLISLE APPROACHING INDIAN			Property Damage Only Crash	Left Blank
710560989	8/31/2019	11 a.m.	Saturday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Other Vehicle - From Same Direction/Both Going Straight
710573423	9/6/2019	8 p.m.	Friday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE	CARLISLE BLVD AND INDIAN SCHOOL RD	Injury Crash	Other Vehicle - From Opposite Direction/One Left Turn
710569432	9/7/2019	1 p.m.	Saturday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE	CARLISLE BLVD	Property Damage Only Crash	Other Vehicle - All Others/Entering At Angle
23430749	9/16/2019	4 p.m.	Monday	CARLISLE	INDIAN SCHOOL		Property Damage Only Crash	Left Blank

Crash Records (Indian School Rd / Carlisle Blvd)

CRASH REPORT NUMBER	CRASH DATE	HOUR OF CRASH	DAY OF WEEK	PRIMARY STREET	SECONDARY STREET	LANDMARK/LOCATION	CRASH SEVERITY	CRASH ANALYSIS
710569284	9/22/2019	6 p.m.	Sunday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
710576746	10/4/2019	3 p.m.	Friday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Injury Crash	Other Vehicle - One Left Turn/Entering At Angle
710553391	10/8/2019	1 p.m.	Tuesday	CARLISLE BLVD NE			Property Damage Only Crash	Other Vehicle - From Opposite Direction/One Left Turn
23478603	10/8/2019	1 p.m.	Tuesday	CARLISLE	INDIAN SCHOOL		Property Damage Only Crash	Other Vehicle - One Left Turn/Entering At Angle
23467424	10/11/2019	11 a.m.	Friday	INDIAN SCHOOL RD NE	CARLISLE NE		Property Damage Only Crash	Left Blank
23459559	10/17/2019	10 a.m.	Thursday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710563886	10/19/2019	11 a.m.	Saturday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Other Vehicle - From Same Direction/Both Going Straight
30259558	11/6/2019	1 p.m.	Wednesday	CARLISLE JUST NORTH OF I40	KMART BUILDING		Property Damage Only Crash	Left Blank
23478646	11/6/2019	8 p.m.	Wednesday	INDIAN SCHOOL AND CARLISLE	INDIAN SCHOOL RD AND CARLSILE		Property Damage Only Crash	Left Blank
23259807	11/15/2019	6 p.m.	Friday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Other Vehicle - From Same Direction/One Stopped
710579323	12/18/2019	5 p.m.	Wednesday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
710573677	12/20/2019	5 p.m.	Friday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - One Right Turn/Entering At Angle
710579639	1/3/2020	12 p.m.	Friday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Injury Crash	Other Vehicle - One Left Turn/Entering At Angle
710576850	1/30/2020	5 p.m.	Thursday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
710583973	2/13/2020	9 a.m.	Thursday	CARLISLE BLVD NE		INDIAN SCHOOL RD NE	Property Damage Only Crash	Fixed Object - Fire Hydrant
710583458	2/19/2020	12 p.m.	Wednesday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Injury Crash	Other Vehicle - From Opposite Direction/One Left Turn
710759085	6/5/2020	6 p.m.	Friday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE	CARLISLE NE	Injury Crash	Other Vehicle - Both Going Straight/Entering At Angle
710761354	6/11/2020	2 p.m.	Thursday	INDIAN SCHOOL RD NE	2103 CARLISLE BL NE		Property Damage Only Crash	Other Vehicle - From Opposite Direction/Both Going Straight
710761615	7/2/2020	5 p.m.	Thursday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710761467	7/13/2020	2 p.m.	Monday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Other Vehicle - From Same Direction/Both Going Straight
30280320	9/2/2020	1 p.m.	Wednesday	CARLISLE + INDIAN SCHOOL RD	INDIAN SCHOOL RD		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710764595	9/9/2020	8 p.m.	Wednesday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Left Blank
710557991	9/14/2020	4 p.m.	Monday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Left Blank
710579088	10/17/2020	9 a.m.	Saturday	CARLISLE BLVD SE	INDIAN SCHOOL RD NE		Injury Crash	Left Blank
710769155	10/30/2020	2 p.m.	Friday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Left Blank
30281289	12/2/2020	12 p.m.	Wednesday	INDIAN SCHOOL RD	CARLISLE		Injury Crash	Other Vehicle - From Opposite Direction
30281730	12/9/2020	5 p.m.	Wednesday	INDIAN SCHOOL AND CARLISLE	CARLISLE		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710772533	1/12/2021	8 a.m.	Tuesday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Left Blank
710772534	1/12/2021	12 p.m.	Tuesday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Left Blank
30282588	1/22/2021	8 p.m.	Friday	INDIAN SCHOOL RD	CARLISLE BLVD		Property Damage Only Crash	Other Vehicle - From Opposite Direction
30282918	3/3/2021	7 a.m.	Wednesday	INDIAN SCHOOL NE	CARLISLE NE		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710780414	4/1/2021	8 p.m.	Thursday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Left Blank
30294867	4/21/2021	12 p.m.	Wednesday	2110 CARLISLE BLVD NE	CARLISLE & I-40		Property Damage Only Crash	Other Vehicle - From Opposite Direction
30295246	4/21/2021	3 p.m.	Wednesday	CARLISLE BLVD	INDIAN SCHOOL RD		Property Damage Only Crash	Invalid Code
710550236	5/27/2021	6 p.m.	Thursday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Left Blank
710787121	5/30/2021	3 p.m.	Sunday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Left Blank
710787546	6/12/2021	9 p.m.	Saturday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Left Blank
710790056	6/23/2021	3 p.m.	Wednesday	CARLISLE BLVD SE	INDIAN SCHOOL RD NE		Injury Crash	Left Blank
710784389	7/12/2021	11 a.m.	Monday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Left Blank
710792730	7/26/2021	2 p.m.	Monday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Left Blank
30297219	8/4/2021	11 a.m.	Wednesday	160 CARLISLE INTERSECTION	JOYCE, LISA & MARCOS	AT I40	Property Damage Only Crash	Other Vehicle - From Opposite Direction
710793370	8/18/2021	2 p.m.	Wednesday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Left Blank
710797830	9/8/2021	2 p.m.	Wednesday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Left Blank
710797018	9/18/2021	2 a.m.	Saturday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Left Blank

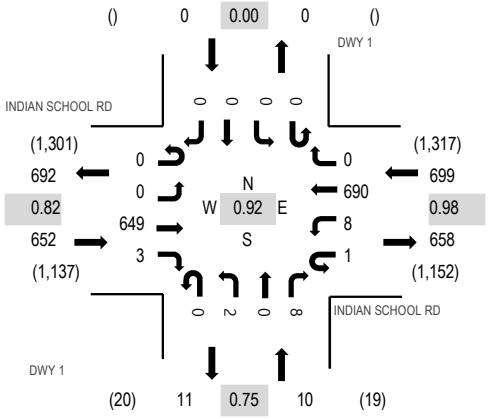
Crash Records (Indian School Rd / Carlisle Blvd)

CRASH REPORT NUMBER	CRASH DATE	HOUR OF CRASH	DAY OF WEEK	PRIMARY STREET	SECONDARY STREET	LANDMARK/LOCATION	CRASH SEVERITY	CRASH ANALYSIS
710788905	10/6/2021	12 p.m.	Wednesday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Left Blank
710764741	10/26/2021	4 p.m.	Tuesday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Left Blank
710771775	11/16/2021	7 a.m.	Tuesday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Injury Crash	Left Blank
30310447	11/28/2021	8 p.m.	Sunday	2019 CARSLILE RD NE	INDIAN SCHOOL ROAD		Property Damage Only Crash	Invalid Code
710873169	12/7/2021	7 a.m.	Tuesday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Left Blank
710881525	2/22/2022	7 a.m.	Tuesday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE	CARLISLE BLVD NE	Injury Crash	Left Blank
710884690	3/6/2022	4 p.m.	Sunday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Left Blank
30313169	4/2/2022	2 p.m.	Saturday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Left Blank
30323650	5/3/2022	2 p.m.	Tuesday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710801564	5/8/2022	2 p.m.	Sunday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Left Blank
30313412	6/8/2022	5 p.m.	Wednesday	INDIAN SCHOOL RD	CARLISLE		Property Damage Only Crash	Other Vehicle - From Opposite Direction
710900878	6/12/2022	8 p.m.	Sunday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Left Blank
30324974	6/27/2022	11 a.m.	Monday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Left Blank
30324014	7/18/2022	4 p.m.	Monday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Left Blank
711005179	7/23/2022	7 p.m.	Saturday	CARLISLE BLVD NE		INDIAN SCHOOL RD NE	Property Damage Only Crash	Left Blank
710908741	8/4/2022	12 p.m.	Thursday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Left Blank
710911125	9/21/2022	10 a.m.	Wednesday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Fatal Crash	Left Blank
710917883	11/20/2022	3 p.m.	Sunday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Left Blank
710918213	11/29/2022	12 p.m.	Tuesday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Left Blank
710918220	12/6/2022	8 a.m.	Tuesday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE		Property Damage Only Crash	Left Blank
710906107	12/6/2022	7 p.m.	Tuesday	CARLISLE BLVD NE	INDIAN SCHOOL RD NE	WHOLE FOOD MARKET	Injury Crash	Left Blank
710918905	12/8/2022	12 p.m.	Thursday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Left Blank
710916433	12/19/2022	1 p.m.	Monday	INDIAN SCHOOL RD NE	CARLISLE BLVD NE		Property Damage Only Crash	Left Blank

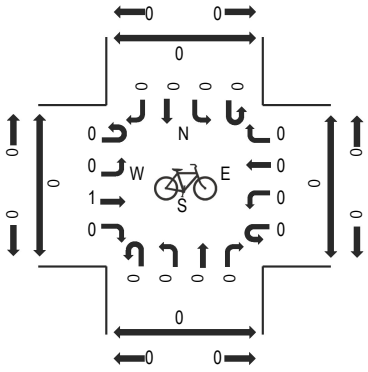
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 DWY 1 & INDIAN SCHOOL RD AM
Date: Wednesday, April 17, 2024
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

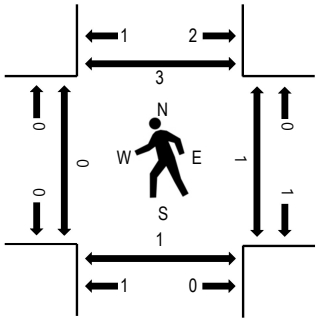
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

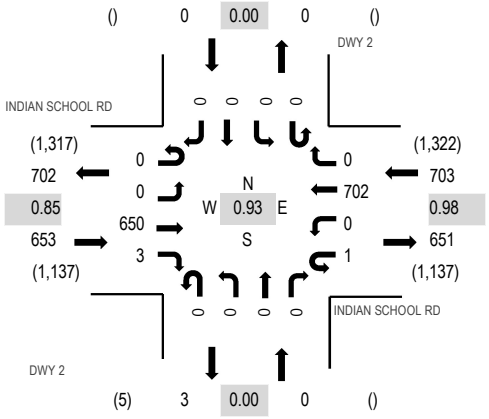
Traffic Counts - Motorized Vehicles

Interval Start Time	INDIAN SCHOOL RD Eastbound				INDIAN SCHOOL RD Westbound				DWY 1 Northbound				DWY 1 Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	94	0	1	1	117	0	0	0	0	0	0	0	0	0	213	1,224	0	0	4	0
7:15 AM	0	0	117	1	0	3	172	0	0	0	0	4	0	0	0	0	297	1,333	0	0	1	1
7:30 AM	0	0	197	2	1	1	168	0	0	0	0	2	0	0	0	0	371	1,361	0	0	1	1
7:45 AM	0	0	168	0	0	1	172	0	0	1	0	1	0	0	0	0	343	1,298	0	0	0	0
8:00 AM	0	0	139	0	0	4	175	0	0	1	0	3	0	0	0	0	322	1,249	0	0	0	2
8:15 AM	0	0	145	1	0	2	175	0	0	0	0	2	0	0	0	0	325		0	1	0	0
8:30 AM	0	0	143	0	1	2	160	0	0	1	0	1	0	0	0	0	308		0	0	1	0
8:45 AM	0	0	130	0	1	2	158	0	0	1	0	2	0	0	0	0	294		0	0	2	1
Count Total	0	0	1,133	4	4	16	1,297	0	0	4	0	15	0	0	0	0	2,473		0	1	9	5
Peak Hour	0	0	649	3	1	8	690	0	0	2	0	8	0	0	0	0	1,361		0	1	1	3

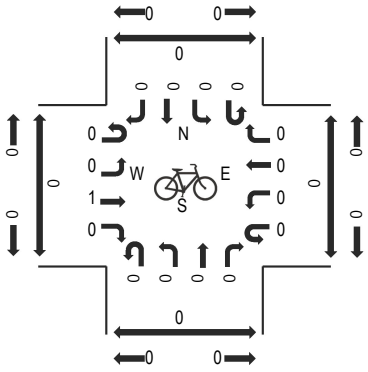
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 DWY 2 & INDIAN SCHOOL RD AM
Date: Wednesday, April 17, 2024
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

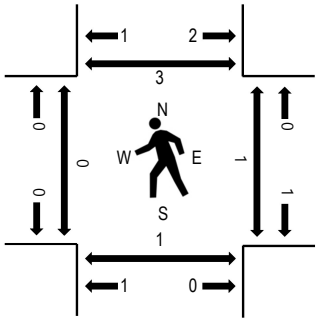
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	INDIAN SCHOOL RD Eastbound				INDIAN SCHOOL RD Westbound				DWY 2 Northbound				DWY 2 Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	95	0	1	0	119	0	0	0	0	0	0	0	0	0	215	1,218	0	0	4	0
7:15 AM	0	0	116	1	0	0	175	0	0	0	0	0	0	0	0	0	292	1,320	0	0	1	1
7:30 AM	0	0	191	2	1	0	171	0	0	0	0	0	0	0	0	0	365	1,356	0	0	1	1
7:45 AM	0	0	166	0	0	0	180	0	0	0	0	0	0	0	0	0	346	1,298	0	0	0	0
8:00 AM	0	0	145	0	0	0	172	0	0	0	0	0	0	0	0	0	317	1,241	0	0	0	2
8:15 AM	0	0	148	1	0	0	179	0	0	0	0	0	0	0	0	0	328		0	1	0	0
8:30 AM	0	0	141	0	1	1	164	0	0	0	0	0	0	0	0	0	307		0	1	1	0
8:45 AM	0	0	131	0	1	0	157	0	0	0	0	0	0	0	0	0	289		0	0	2	1
Count Total	0	0	1,133	4	4	1	1,317	0	0	0	0	0	0	0	0	0	2,459		0	2	9	5
Peak Hour	0	0	650	3	1	0	702	0	0	0	0	0	0	0	0	0	1,356		0	1	1	3

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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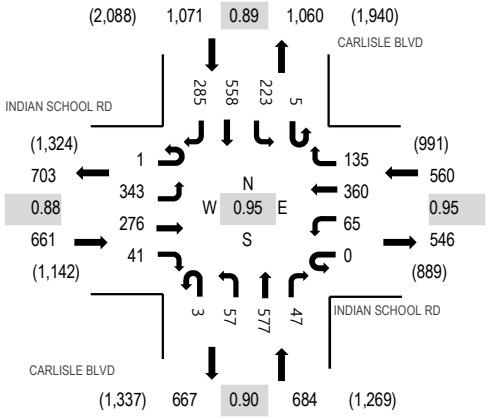
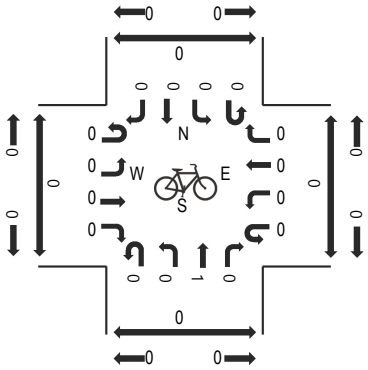
Location: 3 CARLISLE BLVD & INDIAN SCHOOL RD AM
Date: Wednesday, April 17, 2024
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

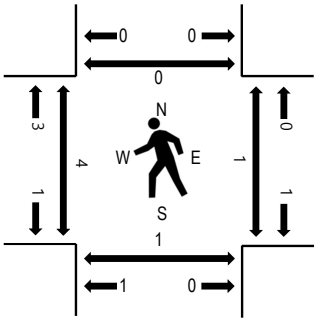
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	INDIAN SCHOOL RD Eastbound				INDIAN SCHOOL RD Westbound				CARLISLE BLVD Northbound				CARLISLE BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	62	25	8	0	17	56	18	0	6	103	7	1	28	108	59	498	2,687	1	0	0	0
7:15 AM	0	70	38	6	0	12	56	23	4	12	106	8	0	32	180	107	654	2,930	0	0	3	0
7:30 AM	0	97	81	10	0	12	87	37	1	12	172	5	1	52	142	72	781	2,976	0	0	0	0
7:45 AM	0	97	70	9	0	18	91	40	0	15	132	13	1	64	129	75	754	2,888	3	1	1	0
8:00 AM	1	74	63	11	0	20	93	25	1	13	139	17	2	65	147	70	741	2,803	1	0	0	0
8:15 AM	0	75	62	11	0	15	89	33	1	17	134	12	1	42	140	68	700		0	0	0	0
8:30 AM	0	70	60	12	0	18	93	30	0	9	143	8	1	38	148	63	693		1	1	0	0
8:45 AM	0	69	51	10	0	13	59	36	3	18	147	11	1	37	131	83	669		0	2	2	0
Count Total	1	614	450	77	0	125	624	242	10	102	1,076	81	8	358	1,125	597	5,490		6	4	6	0
Peak Hour	1	343	276	41	0	65	360	135	3	57	577	47	5	223	558	285	2,976		4	1	1	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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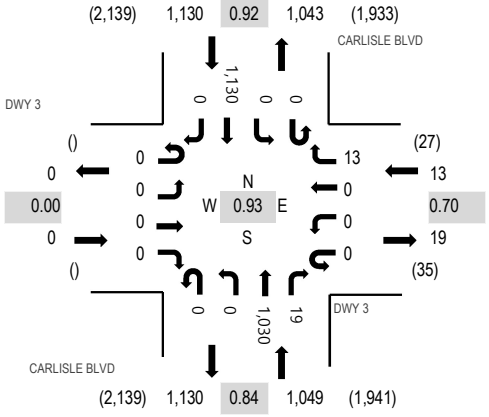
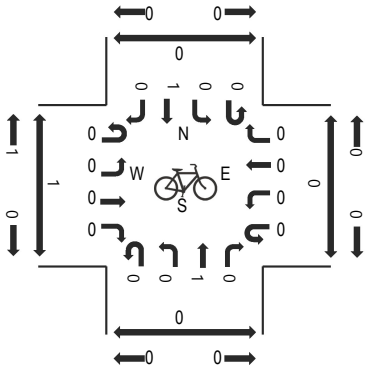
Location: 4 CARLISLE BLVD & DWY 3 AM
Date: Wednesday, April 17, 2024
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

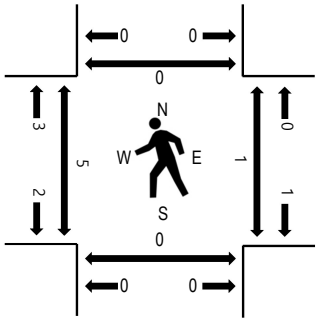
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	DWY 3 Eastbound				DWY 3 Westbound				CARLISLE BLVD Northbound				CARLISLE BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	0	0	3	0	0	158	0	0	0	208	0	369	2,018	2	0	0	0
7:15 AM	0	0	0	0	0	0	0	4	0	0	215	8	0	0	308	0	535	2,192	1	0	0	0
7:30 AM	0	0	0	0	0	0	0	4	0	0	310	4	0	0	270	0	588	2,164	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	2	0	0	246	2	0	0	276	0	526	2,063	3	0	0	0
8:00 AM	0	0	0	0	0	0	0	3	0	0	259	5	0	0	276	0	543	2,089	1	1	0	0
8:15 AM	0	0	0	0	0	0	0	3	0	0	231	1	0	0	272	0	507		2	0	0	0
8:30 AM	0	0	0	0	0	0	0	5	0	0	248	7	0	0	227	0	487		1	1	0	0
8:45 AM	0	0	0	0	0	0	0	3	0	0	239	8	0	0	302	0	552		0	0	0	0
Count Total	0	0	0	0	0	0	0	27	0	0	1,906	35	0	0	2,139	0	4,107		10	2	0	0
Peak Hour	0	0	0	0	0	0	0	13	0	0	1,030	19	0	0	1,130	0	2,192		5	1	0	0

ALL TRAFFIC DATA SERVICES
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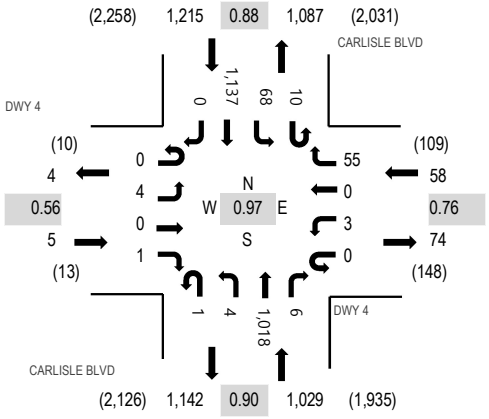
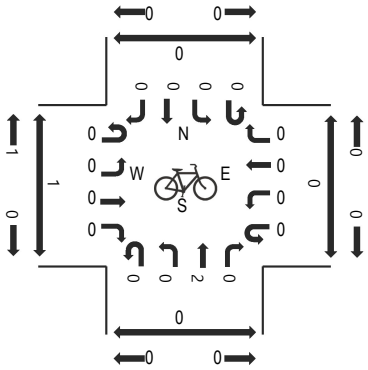
Location: 5 CARLISLE BLVD & DWY 4 AM
Date: Wednesday, April 17, 2024
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

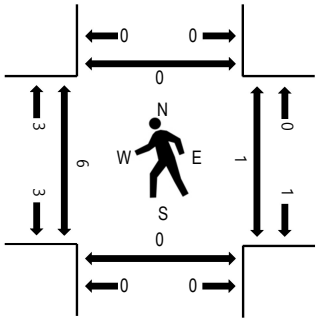
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	DWY 4 Eastbound				DWY 4 Westbound				CARLISLE BLVD Northbound				CARLISLE BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	1	0	1	0	13	0	0	164	1	3	18	195	0	396	2,129	1	0	0	0
7:15 AM	0	2	0	0	0	0	0	17	0	1	195	0	3	21	321	0	560	2,307	2	0	0	0
7:30 AM	0	0	0	0	0	1	0	18	0	1	297	3	3	14	260	0	597	2,270	0	0	0	0
7:45 AM	0	0	0	1	0	2	0	6	1	1	280	2	2	16	265	0	576	2,181	2	0	0	0
8:00 AM	0	2	0	0	0	0	0	14	0	1	246	1	2	17	291	0	574	2,186	2	1	0	0
8:15 AM	0	1	0	0	0	0	0	7	0	2	241	2	2	9	259	0	523		0	1	1	0
8:30 AM	0	3	0	1	0	3	0	10	0	2	231	9	2	16	230	1	508		1	1	0	1
8:45 AM	0	1	0	1	0	2	0	15	2	1	249	2	2	17	289	0	581		0	0	0	0
Count Total	0	9	0	4	0	9	0	100	3	9	1,903	20	19	128	2,110	1	4,315		8	3	1	1
Peak Hour	0	4	0	1	0	3	0	55	1	4	1,018	6	10	68	1,137	0	2,307		6	1	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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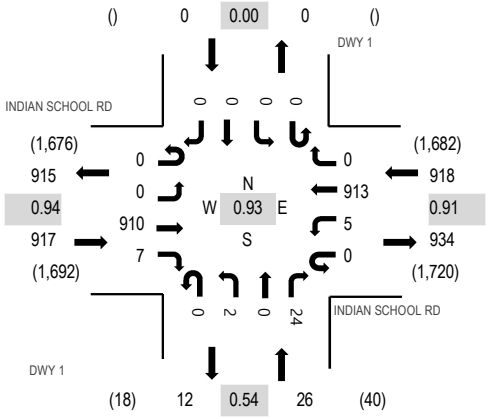
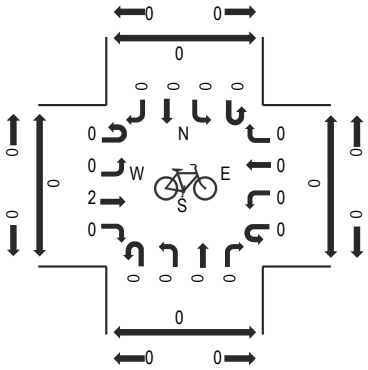
Location: 1 DWY 1 & INDIAN SCHOOL RD PM
Date: Wednesday, April 17, 2024
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

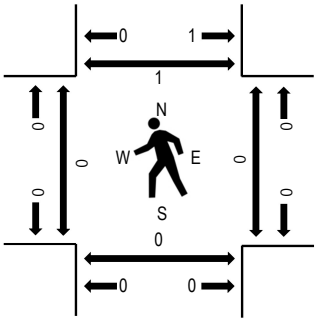
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

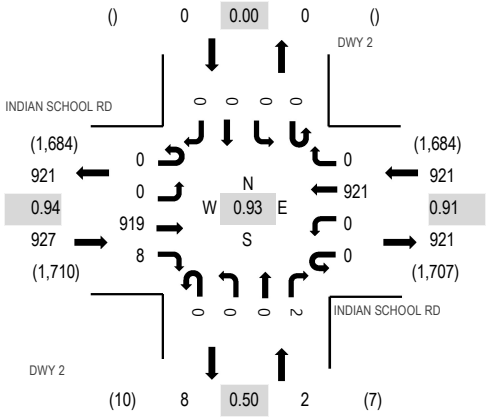
Traffic Counts - Motorized Vehicles

Interval Start Time	INDIAN SCHOOL RD Eastbound				INDIAN SCHOOL RD Westbound				DWY 1 Northbound				DWY 1 Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	192	2	0	0	166	0	0	0	0	2	0	0	0	0	362	1,699	0	1	1	1
4:15 PM	0	0	240	0	0	2	194	0	1	0	0	5	0	0	0	0	442	1,801	0	0	3	1
4:30 PM	0	0	241	4	0	1	198	0	0	1	0	11	0	0	0	0	456	1,861	0	0	0	0
4:45 PM	0	0	214	0	0	3	218	0	0	1	0	3	0	0	0	0	439	1,836	0	0	0	1
5:00 PM	0	0	222	2	0	0	237	0	0	0	0	3	0	0	0	0	464	1,715	0	0	0	0
5:15 PM	0	0	233	1	0	1	260	0	0	0	0	7	0	0	0	0	502		0	0	0	0
5:30 PM	0	0	199	0	0	0	227	0	0	0	0	5	0	0	0	0	431		0	1	0	1
5:45 PM	0	0	142	0	0	1	174	0	0	0	0	1	0	0	0	0	318		0	1	1	1
Count Total	0	0	1,683	9	0	8	1,674	0	1	2	0	37	0	0	0	0	3,414		0	3	5	5
Peak Hour	0	0	910	7	0	5	913	0	0	2	0	24	0	0	0	0	1,861		0	0	0	1

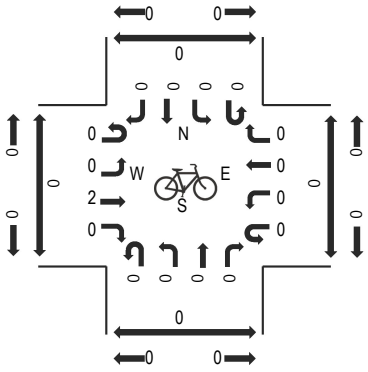
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 DWY 2 & INDIAN SCHOOL RD PM
Date: Wednesday, April 17, 2024
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

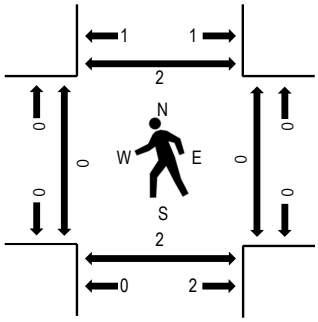
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	INDIAN SCHOOL RD Eastbound				INDIAN SCHOOL RD Westbound				DWY 2 Northbound				DWY 2 Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	199	1	0	0	165	0	0	0	0	2	0	0	0	0	367	1,683	1	0	1	0
4:15 PM	0	0	234	1	0	0	195	0	0	0	0	1	0	0	0	0	431	1,781	0	0	3	1
4:30 PM	0	0	243	4	0	0	204	0	0	0	0	0	0	0	0	0	451	1,850	0	0	0	0
4:45 PM	0	0	217	0	0	0	217	0	0	0	0	0	0	0	0	0	434	1,832	0	0	0	1
5:00 PM	0	0	220	2	0	0	241	0	0	0	0	2	0	0	0	0	465	1,718	0	0	0	0
5:15 PM	0	0	239	2	0	0	259	0	0	0	0	0	0	0	0	0	500		0	0	2	1
5:30 PM	0	0	205	0	0	0	226	0	0	0	0	2	0	0	0	0	433		0	1	0	1
5:45 PM	0	0	143	0	0	0	177	0	0	0	0	0	0	0	0	0	320		0	0	1	0
Count Total	0	0	1,700	10	0	0	1,684	0	0	0	0	7	0	0	0	0	3,401		1	1	7	4
Peak Hour	0	0	919	8	0	0	921	0	0	0	0	2	0	0	0	0	1,850		0	0	2	2

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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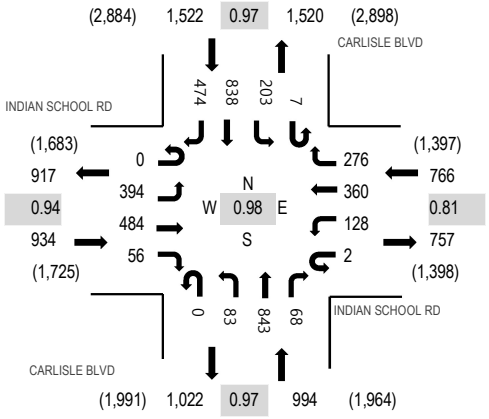
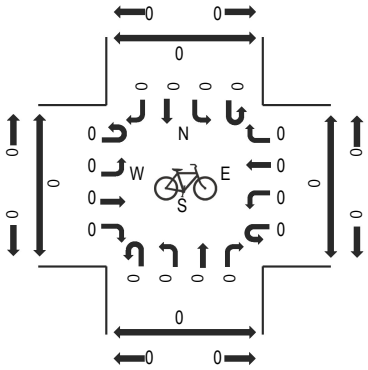
Location: 3 CARLISLE BLVD & INDIAN SCHOOL RD PM
Date: Wednesday, April 17, 2024
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

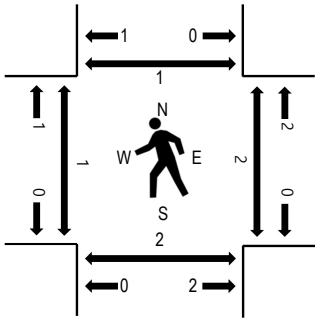
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

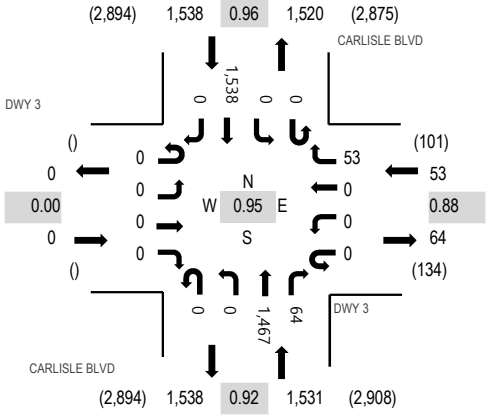
Traffic Counts - Motorized Vehicles

Interval Start Time	INDIAN SCHOOL RD Eastbound				INDIAN SCHOOL RD Westbound				CARLISLE BLVD Northbound				CARLISLE BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	71	97	21	0	27	73	66	0	13	225	19	1	48	176	81	918	4,032	0	0	0	0
4:15 PM	0	110	125	14	0	40	81	53	3	16	227	18	3	46	198	99	1,033	4,184	0	2	3	1
4:30 PM	0	97	132	11	0	31	75	72	0	11	236	13	4	50	225	114	1,071	4,216	0	1	1	0
4:45 PM	0	98	110	21	1	27	86	58	0	23	206	16	2	59	195	108	1,010	4,132	1	0	0	0
5:00 PM	0	92	114	13	1	43	98	95	0	26	197	19	1	47	205	119	1,070	3,938	0	0	0	0
5:15 PM	0	107	128	11	0	27	101	51	0	23	204	20	0	47	213	133	1,065		0	1	1	1
5:30 PM	0	87	92	12	0	24	88	49	0	21	205	28	1	36	223	121	987		2	1	0	0
5:45 PM	0	75	80	7	0	26	70	34	0	12	171	12	0	40	198	91	816		0	0	0	0
Count Total	0	737	878	110	2	245	672	478	3	145	1,671	145	12	373	1,633	866	7,970		3	5	5	2
Peak Hour	0	394	484	56	2	128	360	276	0	83	843	68	7	203	838	474	4,216		1	2	2	1

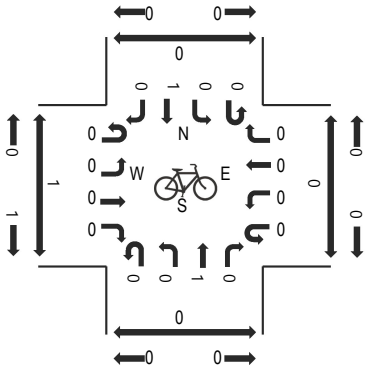
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 CARLISLE BLVD & DWY 3 PM
Date: Wednesday, April 17, 2024
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

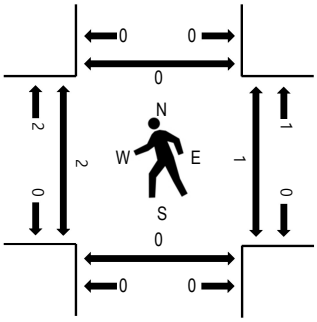
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

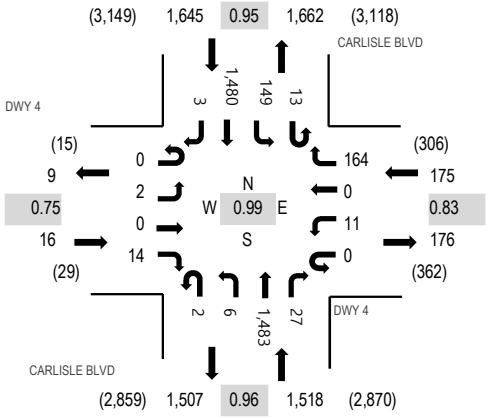
Traffic Counts - Motorized Vehicles

Interval Start Time	DWY 3 Eastbound				DWY 3 Westbound				CARLISLE BLVD Northbound				CARLISLE BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	0	0	12	0	0	353	22	0	0	335	0	722	2,998	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	10	0	0	359	21	0	0	321	0	711	3,063	0	3	0	0
4:30 PM	0	0	0	0	0	0	0	16	0	0	406	17	0	0	382	0	821	3,122	1	1	0	0
4:45 PM	0	0	0	0	0	0	0	16	0	0	340	19	0	0	369	0	744	3,008	1	0	0	0
5:00 PM	0	0	0	0	0	0	0	14	0	0	374	13	0	0	386	0	787	2,905	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	7	0	0	347	15	0	0	401	0	770		0	0	0	0
5:30 PM	0	0	0	0	0	0	0	15	0	0	317	16	0	0	359	0	707		2	3	1	0
5:45 PM	0	0	0	0	0	0	0	11	0	0	278	11	0	0	341	0	641		0	0	0	0
Count Total	0	0	0	0	0	0	0	101	0	0	2,774	134	0	0	2,894	0	5,903		4	7	1	0
Peak Hour	0	0	0	0	0	0	0	53	0	0	1,467	64	0	0	1,538	0	3,122		2	1	0	0

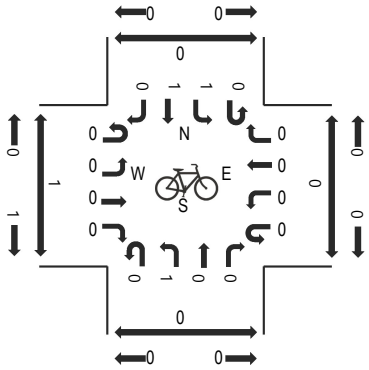
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 5 CARLISLE BLVD & DWY 4 PM
Date: Wednesday, April 17, 2024
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

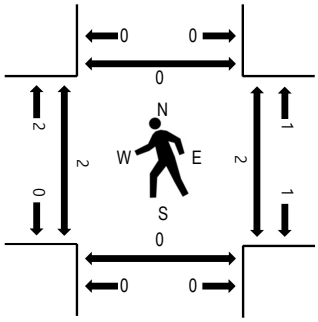
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	DWY 4 Eastbound				DWY 4 Westbound				CARLISLE BLVD Northbound				CARLISLE BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	2	0	4	0	2	0	36	0	1	341	6	3	34	292	1	722	3,207	0	0	0	0
4:15 PM	0	0	0	2	0	0	0	27	1	1	374	10	4	49	355	0	823	3,336	0	2	0	0
4:30 PM	0	1	0	5	0	2	0	37	0	1	396	6	3	42	342	2	837	3,354	0	1	0	0
4:45 PM	0	0	0	4	0	0	0	43	0	0	361	5	3	38	371	0	825	3,291	2	1	0	0
5:00 PM	0	0	0	2	0	6	0	47	1	2	376	8	2	37	369	1	851	3,147	0	0	0	0
5:15 PM	0	1	0	3	0	3	0	37	1	3	350	8	5	32	398	0	841		0	0	0	0
5:30 PM	0	2	0	2	0	4	0	28	0	1	328	7	1	44	357	0	774		2	3	0	0
5:45 PM	0	1	0	0	0	2	0	32	0	2	275	5	2	31	331	0	681		0	0	0	0
Count Total	0	7	0	22	0	19	0	287	3	11	2,801	55	23	307	2,815	4	6,354		4	7	0	0
Peak Hour	0	2	0	14	0	11	0	164	2	6	1,483	27	13	149	1,480	3	3,354		2	2	0	0

APPENDIX E – Existing Synchro Outputs

Queues
1: Carlisle Blvd & Indian School Rd

06/05/2024

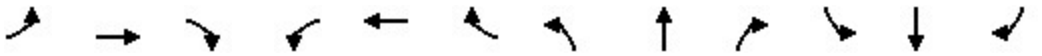


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	391	364	71	391	147	67	666	52	257	652	320
v/c Ratio	1.06	0.33	0.53	0.67	0.38	0.20	0.64	0.09	0.83	0.43	0.37
Control Delay (s/veh)	107.0	29.2	62.7	48.8	9.2	17.3	37.1	0.3	68.8	24.8	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	107.0	29.2	62.7	48.8	9.2	17.3	37.1	0.3	68.8	24.8	4.1
Queue Length 50th (ft)	~305	101	49	137	0	23	214	0	178	172	0
Queue Length 95th (ft)	#477	136	93	178	52	51	278	0	#371	248	57
Internal Link Dist (ft)		275		410			418			200	
Turn Bay Length (ft)			170		120	115		150	245		
Base Capacity (vph)	368	1120	209	778	462	441	1042	557	308	1508	858
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.06	0.33	0.34	0.50	0.32	0.15	0.64	0.09	0.83	0.43	0.37

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	344	279	41	65	360	135	60	599	47	229	580	285
Future Volume (veh/h)	344	279	41	65	360	135	60	599	47	229	580	285
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	391	317	47	71	391	147	67	666	52	257	652	320
Peak Hour Factor	0.88	0.88	0.88	0.92	0.92	0.92	0.90	0.90	0.90	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	935	137	91	511	228	321	1317	588	211	1609	717
Arrive On Green	0.21	0.30	0.30	0.05	0.14	0.14	0.04	0.37	0.37	0.12	0.45	0.45
Sat Flow, veh/h	1781	3109	456	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	391	180	184	71	391	147	67	666	52	257	652	320
Grp Sat Flow(s),veh/h/ln	1781	1777	1788	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	22.9	8.7	8.8	4.3	11.6	9.6	2.6	16.0	2.3	13.0	13.5	15.2
Cycle Q Clear(g_c), s	22.9	8.7	8.8	4.3	11.6	9.6	2.6	16.0	2.3	13.0	13.5	15.2
Prop In Lane	1.00		0.26	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	371	535	538	91	511	228	321	1317	588	211	1609	717
V/C Ratio(X)	1.05	0.34	0.34	0.78	0.76	0.64	0.21	0.51	0.09	1.22	0.41	0.45
Avail Cap(c_a), veh/h	371	551	554	211	782	349	467	1317	588	211	1609	717
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	29.9	30.0	51.6	45.3	44.4	20.2	26.8	22.5	48.5	20.2	20.6
Incr Delay (d2), s/veh	61.8	0.4	0.4	5.3	2.4	3.0	0.1	1.4	0.3	134.3	0.8	2.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.2	3.7	3.8	2.0	5.2	3.9	1.1	6.9	0.9	13.5	5.6	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	105.3	30.3	30.3	56.9	47.7	47.5	20.3	28.2	22.8	182.8	20.9	22.7
LnGrp LOS	F	C	C	E	D	D	C	C	C	F	C	C
Approach Vol, veh/h		755			609			785			1229	
Approach Delay, s/veh		69.2			48.7			27.2			55.2	
Approach LOS		E			D			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	38.6	16.5	45.8	26.4	21.3	7.5	54.8
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	13.0	34.1	13.0	32.4	22.9	24.2	13.0	32.4
Max Q Clear Time (g_c+I1), s	6.3	10.8	15.0	18.0	24.9	13.6	4.6	17.2
Green Ext Time (p_c), s	0.0	2.0	0.0	4.0	0.0	2.2	0.0	4.9

Intersection Summary	
HCM 7th Control Delay, s/veh	50.7
HCM 7th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	12	0	1066	12	0	1094	0
Future Vol, veh/h	0	0	0	0	0	12	0	1066	12	0	1094	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	85	85	85	85	85	85	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	14	0	1254	14	0	1189	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	595	-	-	634	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*750	0	0	*773	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			0			0		-	-		-	-
Mov Cap-1 Maneuver	-	-	*750	-	-	*773	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	9.75	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	773	-	-
HCM Lane V/C Ratio	-	-	-	0.018	-	-
HCM Control Delay (s/veh)	-	-	0	9.7	-	-
HCM Lane LOS	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	0.1	-	-

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

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	1	3	0	45	6	1064	8	65	1090	0
Future Vol, veh/h	3	0	1	3	0	45	6	1064	8	65	1090	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	0	-	-	-	125	-	120	245	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	90	90	90	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	1	4	0	53	7	1182	9	71	1185	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1812	-	592	1811	-	591	1185	0	0	1191	0	0
Stage 1	1326	-	-	1196	-	-	-	-	-	-	-	-
Stage 2	486	-	-	615	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	-	7.14	6.44	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	-	-	7.34	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	-	-	6.74	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	-	3.92	3.82	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	*83	0	*750	*83	0	*753	589	-	-	578	-	-
Stage 1	*299	0	-	*378	0	-	-	-	-	-	-	-
Stage 2	*772	0	-	*770	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*67	-	*750	*72	-	*753	589	-	-	578	-	-
Mov Cap-2 Maneuver	*67	-	-	*72	-	-	-	-	-	-	-	-
Stage 1	*263	-	-	*373	-	-	-	-	-	-	-	-
Stage 2	*710	-	-	*675	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	48.77	13.11	0.06	0.68
HCM LOS	E	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	589	-	-	67	750	72	753	578	-	-
HCM Lane V/C Ratio	0.011	-	-	0.053	0.002	0.049	0.07	0.122	-	-
HCM Control Delay (s/veh)	11.2	-	-	61.8	9.8	57.5	10.1	12.1	-	-
HCM Lane LOS	B	-	-	F	A	F	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0.2	0.2	0.4	-	-

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

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	656	3	9	696	0	2	0	8	0	0	0
Future Vol, veh/h	0	656	3	9	696	0	2	0	8	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	230	-	-	-	-	-	-	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	92	92	92	85	85	85	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	772	4	10	757	0	2	0	9	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	757	0	0	775	0	0	1171	1550	388	1162	-	378
Stage 1	-	-	-	-	-	-	774	774	-	776	-	-
Stage 2	-	-	-	-	-	-	398	776	-	386	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	1056	-	-	836	-	-	*235	143	611	239	0	*894
Stage 1	-	-	-	-	-	-	*358	407	-	563	0	-
Stage 2	-	-	-	-	-	-	*843	546	-	609	0	-
Platoon blocked, %	0	-	-		-	-	0	0		0		0
Mov Cap-1 Maneuver	1056	-	-	836	-	-	*231	141	611	232	-	*894
Mov Cap-2 Maneuver	-	-	-	-	-	-	*231	141	-	232	-	-
Stage 1	-	-	-	-	-	-	*358	407	-	554	-	-
Stage 2	-	-	-	-	-	-	*830	538	-	600	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.25	13.03	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	460	1056	-	-	46	-	-	-	-
HCM Lane V/C Ratio	0.026	-	-	-	0.012	-	-	-	-
HCM Control Delay (s/veh)	13	0	-	-	9.4	0.1	-	0	0
HCM Lane LOS	B	A	-	-	A	A	-	A	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-	-

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

Queues
1: Carlisle Blvd & Indian School Rd

06/05/2024

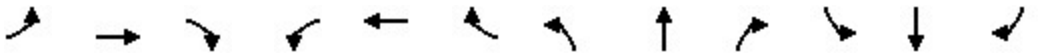


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	428	587	153	424	325	90	936	74	228	927	516
v/c Ratio	1.10	0.59	0.81	0.70	0.67	0.38	0.85	0.12	0.87	0.65	0.55
Control Delay (s/veh)	118.3	38.6	81.8	52.8	18.1	22.4	47.9	0.4	80.0	33.0	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	118.3	38.6	81.8	52.8	18.1	22.4	47.9	0.4	80.0	33.0	5.3
Queue Length 50th (ft)	~375	204	116	163	46	36	372	0	169	305	6
Queue Length 95th (ft)	#576	255	#189	198	119	69	#507	0	#314	413	89
Internal Link Dist (ft)		275		410			418			200	
Turn Bay Length (ft)			170		120	115		150	245		
Base Capacity (vph)	390	1067	213	722	526	345	1106	597	276	1417	936
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.10	0.55	0.72	0.59	0.62	0.26	0.85	0.12	0.83	0.65	0.55

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	394	484	56	130	360	276	83	861	68	210	853	475
Future Volume (veh/h)	394	484	56	130	360	276	83	861	68	210	853	475
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	428	526	61	153	424	325	90	936	74	228	927	516
Peak Hour Factor	0.92	0.92	0.92	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	393	1041	120	180	726	324	208	1018	454	254	1349	602
Arrive On Green	0.22	0.32	0.32	0.10	0.20	0.20	0.05	0.29	0.29	0.14	0.38	0.38
Sat Flow, veh/h	1781	3209	371	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	428	290	297	153	424	325	90	936	74	228	927	516
Grp Sat Flow(s),veh/h/ln	1781	1777	1804	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	26.5	15.8	16.0	10.1	12.9	24.5	4.2	30.6	4.2	15.1	26.3	35.9
Cycle Q Clear(g_c), s	26.5	15.8	16.0	10.1	12.9	24.5	4.2	30.6	4.2	15.1	26.3	35.9
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	393	576	585	180	726	324	208	1018	454	254	1349	602
V/C Ratio(X)	1.09	0.50	0.51	0.85	0.58	1.00	0.43	0.92	0.16	0.90	0.69	0.86
Avail Cap(c_a), veh/h	393	576	585	215	726	324	335	1018	454	269	1349	602
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	32.8	32.8	53.1	43.1	47.8	29.1	41.5	32.0	50.6	31.3	34.3
Incr Delay (d2), s/veh	71.1	0.7	0.7	20.7	1.2	51.1	0.5	14.4	0.8	27.9	2.9	14.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.3	6.9	7.0	5.5	5.8	14.1	1.8	15.2	1.7	8.6	11.6	15.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	117.9	33.5	33.5	73.7	44.4	98.9	29.6	55.9	32.8	78.4	34.1	48.9
LnGrp LOS	F	C	C	E	D	F	C	E	C	E	C	D
Approach Vol, veh/h		1015			902			1100			1671	
Approach Delay, s/veh		69.1			69.0			52.2			44.7	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.6	44.4	20.6	39.4	30.0	30.0	9.5	50.5
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	14.5	36.5	18.1	33.4	26.5	24.5	14.5	37.0
Max Q Clear Time (g_c+I1), s	12.1	18.0	17.1	32.6	28.5	26.5	6.2	37.9
Green Ext Time (p_c), s	0.0	3.3	0.0	0.5	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	56.4
HCM 7th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	53	0	1467	64	0	1538	0
Future Vol, veh/h	0	0	0	0	0	53	0	1467	64	0	1538	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	88	88	88	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	60	0	1595	70	0	1672	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	836	-	-	832	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*711	0	0	*720	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			0			0		-	-		-	-
Mov Cap-1 Maneuver	-	-	*711	-	-	*720	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	10.46	0	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	720	-	-
HCM Lane V/C Ratio	-	-	-	0.084	-	-
HCM Control Delay (s/veh)	-	-	0	10.5	-	-
HCM Lane LOS	-	-	A	B	-	-
HCM 95th %tile Q(veh)	-	-	-	0.3	-	-

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

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	14	11	0	164	8	1485	27	162	1513	3
Future Vol, veh/h	2	0	14	11	0	164	8	1485	27	162	1513	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	0	-	-	-	125	-	120	245	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	16	13	0	193	9	1614	29	176	1645	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2661	-	824	2642	-	807	1648	0	0	1643	0	0
Stage 1	1998	-	-	1632	-	-	-	-	-	-	-	-
Stage 2	663	-	-	1010	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	-	7.14	6.44	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	-	-	7.34	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	-	-	6.74	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	-	3.92	3.82	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	*24	0	*711	*25	0	*677	372	-	-	435	-	-
Stage 1	*100	0	-	*272	0	-	-	-	-	-	-	-
Stage 2	*695	0	-	*729	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*10	-	*711	*14	-	*677	372	-	-	435	-	-
Mov Cap-2 Maneuver	*10	-	-	*14	-	-	-	-	-	-	-	-
Stage 1	*60	-	-	*265	-	-	-	-	-	-	-	-
Stage 2	*486	-	-	*424	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	65.14	47.08	0.08	1.81
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	372	-	-	10	711	14	677	435	-	-
HCM Lane V/C Ratio	0.023	-	-	0.234	0.023	0.914	0.285	0.405	-	-
HCM Control Delay (s/veh)	14.9	-	-	$ 449.8	10.2	$ 563.9	12.4	18.8	-	-
HCM Lane LOS	B	-	-	F	B	F	B	C	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.1	2.1	1.2	1.9	-	-

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

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	910	7	5	913	0	2	0	24	0	0	0
Future Vol, veh/h	0	910	7	5	913	0	2	0	24	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	230	-	-	-	-	-	-	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	91	91	91	50	85	85	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	989	8	5	1003	0	4	0	28	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1003	0	0	997	0	0	1506	2007	498	1509	-	502
Stage 1	-	-	-	-	-	-	993	993	-	1014	-	-
Stage 2	-	-	-	-	-	-	513	1014	-	495	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	876	-	-	690	-	-	*135	69	517	134	0	*841
Stage 1	-	-	-	-	-	-	*263	322	-	438	0	-
Stage 2	-	-	-	-	-	-	*794	446	-	525	0	-
Platoon blocked, %	0	-	-		-	-	0	0		0		0
Mov Cap-1 Maneuver	876	-	-	690	-	-	*134	68	517	125	-	*841
Mov Cap-2 Maneuver	-	-	-	-	-	-	*134	68	-	125	-	-
Stage 1	-	-	-	-	-	-	*263	322	-	434	-	-
Stage 2	-	-	-	-	-	-	*785	441	-	497	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.17	15.3	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	382	876	-	-	20	-	-	-	-
HCM Lane V/C Ratio	0.084	-	-	-	0.008	-	-	-	-
HCM Control Delay (s/veh)	15.3	0	-	-	10.3	0.1	-	0	0
HCM Lane LOS	C	A	-	-	B	A	-	A	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	-	-

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

APPENDIX F – Background (without site development) Synchro Outputs

Queues
1: Carlisle Blvd & Indian School Rd

06/05/2024

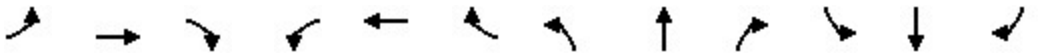


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	377	352	72	396	148	66	658	51	251	637	313
v/c Ratio	1.02	0.32	0.53	0.68	0.38	0.20	0.63	0.09	0.82	0.42	0.37
Control Delay (s/veh)	97.0	28.9	62.6	48.8	9.1	17.3	36.9	0.3	67.6	24.8	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	97.0	28.9	62.6	48.8	9.1	17.3	36.9	0.3	67.6	24.8	4.2
Queue Length 50th (ft)	~284	96	50	139	0	23	211	0	173	166	0
Queue Length 95th (ft)	#471	135	95	181	52	51	274	0	#369	246	59
Internal Link Dist (ft)		275		410			418			200	
Turn Bay Length (ft)			170		120	115		150	245		
Base Capacity (vph)	368	1121	209	778	463	444	1042	557	305	1505	852
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.31	0.34	0.51	0.32	0.15	0.63	0.09	0.82	0.42	0.37

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	347	282	41	66	364	136	61	605	47	231	586	288
Future Volume (veh/h)	347	282	41	66	364	136	61	605	47	231	586	288
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	377	307	45	72	396	148	66	658	51	251	637	313
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	939	136	92	516	230	325	1312	585	211	1605	716
Arrive On Green	0.21	0.30	0.30	0.05	0.15	0.15	0.04	0.37	0.37	0.12	0.45	0.45
Sat Flow, veh/h	1781	3114	452	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	377	174	178	72	396	148	66	658	51	251	637	313
Grp Sat Flow(s),veh/h/ln	1781	1777	1789	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	22.9	8.3	8.5	4.4	11.8	9.7	2.5	15.8	2.3	13.0	13.2	14.8
Cycle Q Clear(g_c), s	22.9	8.3	8.5	4.4	11.8	9.7	2.5	15.8	2.3	13.0	13.2	14.8
Prop In Lane	1.00		0.25	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	371	536	540	92	516	230	325	1312	585	211	1605	716
V/C Ratio(X)	1.02	0.32	0.33	0.78	0.77	0.64	0.20	0.50	0.09	1.19	0.40	0.44
Avail Cap(c_a), veh/h	371	551	555	211	782	349	472	1312	585	211	1605	716
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	29.7	29.8	51.5	45.2	44.3	20.3	26.9	22.6	48.5	20.2	20.6
Incr Delay (d2), s/veh	51.0	0.3	0.4	5.2	2.5	3.0	0.1	1.4	0.3	123.6	0.7	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.1	3.6	3.7	2.1	5.3	3.9	1.0	6.8	0.9	12.9	5.5	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	94.6	30.1	30.1	56.8	47.7	47.3	20.4	28.2	22.9	172.1	20.9	22.5
LnGrp LOS	F	C	C	E	D	D	C	C	C	F	C	C
Approach Vol, veh/h		729			616			775			1201	
Approach Delay, s/veh		63.4			48.7			27.2			52.9	
Approach LOS		E			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	38.7	16.5	45.6	26.4	21.5	7.4	54.7
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	13.0	34.1	13.0	32.4	22.9	24.2	13.0	32.4
Max Q Clear Time (g_c+I1), s	6.4	10.5	15.0	17.8	24.9	13.8	4.5	16.8
Green Ext Time (p_c), s	0.0	2.0	0.0	3.9	0.0	2.2	0.0	4.8

Intersection Summary	
HCM 7th Control Delay, s/veh	48.5
HCM 7th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	12	0	1076	12	0	1105	0
Future Vol, veh/h	0	0	0	0	0	12	0	1076	12	0	1105	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	13	0	1170	13	0	1201	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	601	-	-	591	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*750	0	0	*773	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			0			0		-	-		-	-
Mov Cap-1 Maneuver	-	-	*750	-	-	*773	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	9.74	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	773	-	-
HCM Lane V/C Ratio	-	-	-	0.017	-	-
HCM Control Delay (s/veh)	-	-	0	9.7	-	-
HCM Lane LOS	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	0.1	-	-

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

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	1	3	0	45	6	1074	8	65	1101	0
Future Vol, veh/h	3	0	1	3	0	45	6	1074	8	65	1101	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	0	-	-	-	125	-	120	245	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	1	3	0	49	7	1167	9	71	1197	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1818	-	598	1800	-	584	1197	0	0	1176	0	0
Stage 1	1338	-	-	1180	-	-	-	-	-	-	-	-
Stage 2	480	-	-	620	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	-	7.14	6.44	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	-	-	7.34	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	-	-	6.74	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	-	3.92	3.82	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	*82	0	*750	*84	0	*753	580	-	-	590	-	-
Stage 1	*292	0	-	*389	0	-	-	-	-	-	-	-
Stage 2	*772	0	-	*770	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*67	-	*750	*73	-	*753	580	-	-	590	-	-
Mov Cap-2 Maneuver	*67	-	-	*73	-	-	-	-	-	-	-	-
Stage 1	*257	-	-	*384	-	-	-	-	-	-	-	-
Stage 2	*714	-	-	*677	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	48.58	13.01	0.06	0.67
HCM LOS	E	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	580	-	-	67	750	73	753	590	-	-
HCM Lane V/C Ratio	0.011	-	-	0.049	0.001	0.044	0.065	0.12	-	-
HCM Control Delay (s/veh)	11.3	-	-	61.5	9.8	56.4	10.1	11.9	-	-
HCM Lane LOS	B	-	-	F	A	F	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0.1	0.2	0.4	-	-

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

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	662	3	9	704	0	2	0	8	0	0	0
Future Vol, veh/h	0	662	3	9	704	0	2	0	8	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	230	-	-	-	-	-	-	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	720	3	10	765	0	2	0	9	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	765	0	0	723	0	0	1123	1506	361	1145	-	383
Stage 1	-	-	-	-	-	-	721	721	-	785	-	-
Stage 2	-	-	-	-	-	-	402	785	-	360	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	1047	-	-	875	-	-	*259	154	635	248	0	*894
Stage 1	-	-	-	-	-	-	*385	430	-	555	0	-
Stage 2	-	-	-	-	-	-	*843	541	-	631	0	-
Platoon blocked, %	0	-	-		-	-	0	0		0		0
Mov Cap-1 Maneuver	1047	-	-	875	-	-	*255	152	635	241	-	*894
Mov Cap-2 Maneuver	-	-	-	-	-	-	*255	152	-	241	-	-
Stage 1	-	-	-	-	-	-	*385	430	-	547	-	-
Stage 2	-	-	-	-	-	-	*831	533	-	622	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.24	12.53	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	489	1047	-	-	45	-	-	-	-
HCM Lane V/C Ratio	0.022	-	-	-	0.011	-	-	-	-
HCM Control Delay (s/veh)	12.5	0	-	-	9.2	0.1	-	0	0
HCM Lane LOS	B	A	-	-	A	A	-	A	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-	-

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

Queues
1: Carlisle Blvd & Indian School Rd

06/05/2024

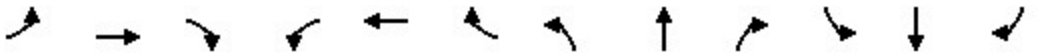


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	433	594	142	396	303	91	946	75	230	937	522
v/c Ratio	1.11	0.60	0.78	0.68	0.64	0.38	0.85	0.12	0.85	0.65	0.55
Control Delay (s/veh)	122.3	39.3	79.2	53.0	15.6	22.1	47.7	0.4	77.0	32.3	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	122.3	39.3	79.2	53.0	15.6	22.1	47.7	0.4	77.0	32.3	5.4
Queue Length 50th (ft)	~383	207	108	152	32	36	374	0	171	305	8
Queue Length 95th (ft)	#584	258	#189	198	119	70	#516	0	#317	419	94
Internal Link Dist (ft)		276		410			418			216	
Turn Bay Length (ft)			170		120	115		150	245		
Base Capacity (vph)	390	1067	213	722	526	347	1118	602	282	1443	944
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.11	0.56	0.67	0.55	0.58	0.26	0.85	0.12	0.82	0.65	0.55

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	398	489	57	131	364	279	84	870	69	212	862	480
Future Volume (veh/h)	398	489	57	131	364	279	84	870	69	212	862	480
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	433	532	62	142	396	303	91	946	75	230	937	522
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	393	1060	123	168	726	324	206	1014	452	256	1347	601
Arrive On Green	0.22	0.33	0.33	0.09	0.20	0.20	0.05	0.29	0.29	0.14	0.38	0.38
Sat Flow, veh/h	1781	3207	373	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	433	294	300	142	396	303	91	946	75	230	937	522
Grp Sat Flow(s),veh/h/ln	1781	1777	1803	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	26.5	15.9	16.0	9.4	12.0	22.6	4.3	31.1	4.3	15.2	26.7	36.6
Cycle Q Clear(g_c), s	26.5	15.9	16.0	9.4	12.0	22.6	4.3	31.1	4.3	15.2	26.7	36.6
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	393	587	596	168	726	324	206	1014	452	256	1347	601
V/C Ratio(X)	1.10	0.50	0.50	0.84	0.55	0.94	0.44	0.93	0.17	0.90	0.70	0.87
Avail Cap(c_a), veh/h	393	587	596	215	726	324	332	1014	452	269	1347	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	32.2	32.3	53.5	42.8	47.0	29.2	41.8	32.2	50.5	31.4	34.5
Incr Delay (d2), s/veh	75.4	0.7	0.7	17.3	0.9	33.8	0.5	16.1	0.8	28.2	3.0	15.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.8	6.9	7.0	5.0	5.3	11.8	1.9	15.6	1.7	8.7	11.8	16.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	122.1	32.9	32.9	70.7	43.6	80.8	29.8	57.8	32.9	78.7	34.4	50.2
LnGrp LOS	F	C	C	E	D	F	C	E	C	E	C	D
Approach Vol, veh/h		1027			841			1112			1689	
Approach Delay, s/veh		70.5			61.6			53.8			45.3	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.8	45.2	20.7	39.3	30.0	30.0	9.5	50.5
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	14.5	36.5	18.1	33.4	26.5	24.5	14.5	37.0
Max Q Clear Time (g_c+I1), s	11.4	18.0	17.2	33.1	28.5	24.6	6.3	38.6
Green Ext Time (p_c), s	0.0	3.3	0.0	0.2	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	55.8
HCM 7th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	53	0	1483	64	0	1554	0
Future Vol, veh/h	0	0	0	0	0	53	0	1483	64	0	1554	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	58	0	1612	70	0	1689	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	845	-	-	841	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*711	0	0	*715	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			0			0		-	-		-	-
Mov Cap-1 Maneuver	-	-	*711	-	-	*715	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	10.47	0	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	715	-	-
HCM Lane V/C Ratio	-	-	-	0.081	-	-
HCM Control Delay (s/veh)	-	-	0	10.5	-	-
HCM Lane LOS	-	-	A	B	-	-
HCM 95th %tile Q(veh)	-	-	-	0.3	-	-

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

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	14	11	0	164	8	1501	27	162	1529	3
Future Vol, veh/h	2	0	14	11	0	164	8	1501	27	162	1529	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	0	-	-	-	125	-	120	245	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	15	12	0	178	9	1632	29	176	1662	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2686	-	833	2666	-	816	1665	0	0	1661	0	0
Stage 1	2016	-	-	1649	-	-	-	-	-	-	-	-
Stage 2	670	-	-	1017	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	-	7.14	6.44	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	-	-	7.34	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	-	-	6.74	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	-	3.92	3.82	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	*23	0	*711	*24	0	*677	363	-	-	424	-	-
Stage 1	*96	0	-	*262	0	-	-	-	-	-	-	-
Stage 2	*695	0	-	*729	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*10	-	*711	*13	-	*677	363	-	-	424	-	-
Mov Cap-2 Maneuver	*10	-	-	*13	-	-	-	-	-	-	-	-
Stage 1	*56	-	-	*256	-	-	-	-	-	-	-	-
Stage 2	*500	-	-	*417	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	65.86	47.7	0.08	1.85
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	363	-	-	10	711	13	677	424	-	-
HCM Lane V/C Ratio	0.024	-	-	0.221	0.021	0.89	0.263	0.415	-	-
HCM Control Delay (s/veh)	15.2	-	-	$ 455.7	10.2	$ 576.9	12.2	19.4	-	-
HCM Lane LOS	C	-	-	F	B	F	B	C	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.1	2	1.1	2	-	-

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

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	920	7	5	923	0	2	0	24	0	0	0
Future Vol, veh/h	0	920	7	5	923	0	2	0	24	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	230	-	-	-	-	-	-	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1000	8	5	1003	0	2	0	26	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1003	0	0	1008	0	0	1516	2018	504	1514	-	502
Stage 1	-	-	-	-	-	-	1004	1004	-	1014	-	-
Stage 2	-	-	-	-	-	-	513	1014	-	500	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	876	-	-	683	-	-	*132	67	513	133	0	*841
Stage 1	-	-	-	-	-	-	*259	318	-	439	0	-
Stage 2	-	-	-	-	-	-	*793	447	-	521	0	-
Platoon blocked, %	0	-	-		-	-	0	0		0		0
Mov Cap-1 Maneuver	876	-	-	683	-	-	*131	67	513	125	-	*841
Mov Cap-2 Maneuver	-	-	-	-	-	-	*131	67	-	125	-	-
Stage 1	-	-	-	-	-	-	*259	318	-	434	-	-
Stage 2	-	-	-	-	-	-	*785	442	-	495	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.17	14.21	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	419	876	-	-	19	-	-	-	-
HCM Lane V/C Ratio	0.067	-	-	-	0.008	-	-	-	-
HCM Control Delay (s/veh)	14.2	0	-	-	10.3	0.1	-	0	0
HCM Lane LOS	B	A	-	-	B	A	-	A	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	-	-

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

Queues

1: Carlisle Blvd & Indian School Rd

06/05/2024

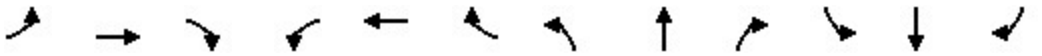


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	397	370	75	415	155	70	691	54	264	670	329
v/c Ratio	1.08	0.33	0.54	0.69	0.39	0.21	0.66	0.10	0.89	0.45	0.39
Control Delay (s/veh)	111.6	28.9	62.6	48.6	8.8	17.7	37.7	0.3	77.8	25.7	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	111.6	28.9	62.6	48.6	8.8	17.7	37.7	0.3	77.8	25.7	4.2
Queue Length 50th (ft)	~313	102	52	145	0	25	224	0	185	180	0
Queue Length 95th (ft)	#505	142	97	188	53	54	290	0	#398	264	61
Internal Link Dist (ft)		275		410			418			200	
Turn Bay Length (ft)			170		120	115		150	245		
Base Capacity (vph)	368	1126	209	778	469	437	1042	557	296	1481	854
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.08	0.33	0.36	0.53	0.33	0.16	0.66	0.10	0.89	0.45	0.39

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	365	296	44	69	382	143	64	636	50	243	616	303
Future Volume (veh/h)	365	296	44	69	382	143	64	636	50	243	616	303
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	397	322	48	75	415	155	70	691	54	264	670	329
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	948	140	96	536	239	310	1292	576	211	1578	704
Arrive On Green	0.21	0.31	0.31	0.05	0.15	0.15	0.04	0.36	0.36	0.12	0.44	0.44
Sat Flow, veh/h	1781	3106	459	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	397	183	187	75	415	155	70	691	54	264	670	329
Grp Sat Flow(s),veh/h/ln	1781	1777	1788	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	22.9	8.8	8.9	4.6	12.4	10.1	2.7	16.9	2.5	13.0	14.2	16.0
Cycle Q Clear(g_c), s	22.9	8.8	8.9	4.6	12.4	10.1	2.7	16.9	2.5	13.0	14.2	16.0
Prop In Lane	1.00		0.26	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	371	542	546	96	536	239	310	1292	576	211	1578	704
V/C Ratio(X)	1.07	0.34	0.34	0.78	0.77	0.65	0.23	0.53	0.09	1.25	0.42	0.47
Avail Cap(c_a), veh/h	371	551	554	211	782	349	454	1292	576	211	1578	704
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	29.6	29.7	51.4	44.9	44.0	20.7	27.6	23.1	48.5	20.9	21.5
Incr Delay (d2), s/veh	66.8	0.4	0.4	5.1	3.0	2.9	0.1	1.6	0.3	147.1	0.8	2.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.7	3.7	3.8	2.2	5.6	4.1	1.1	7.3	1.0	14.3	5.9	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	110.3	30.0	30.0	56.5	47.9	46.9	20.8	29.2	23.4	195.6	21.8	23.7
LnGrp LOS	F	C	C	E	D	D	C	C	C	F	C	C
Approach Vol, veh/h		767			645			815			1263	
Approach Delay, s/veh		71.6			48.6			28.1			58.6	
Approach LOS		E			D			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	39.1	16.5	45.0	26.4	22.1	7.7	53.8
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	13.0	34.1	13.0	32.4	22.9	24.2	13.0	32.4
Max Q Clear Time (g_c+I1), s	6.6	10.9	15.0	18.9	24.9	14.4	4.7	18.0
Green Ext Time (p_c), s	0.0	2.1	0.0	4.0	0.0	2.2	0.0	4.9

Intersection Summary	
HCM 7th Control Delay, s/veh	52.5
HCM 7th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	12	0	1132	12	0	1162	0
Future Vol, veh/h	0	0	0	0	0	12	0	1132	12	0	1162	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	13	0	1230	13	0	1263	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	632	-	-	622	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*750	0	0	*773	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			0			0		-	-		-	-
Mov Cap-1 Maneuver	-	-	*750	-	-	*773	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	9.74	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	773	-	-
HCM Lane V/C Ratio	-	-	-	0.017	-	-
HCM Control Delay (s/veh)	-	-	0	9.7	-	-
HCM Lane LOS	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	0.1	-	-

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

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	1	3	0	45	6	1130	8	65	1158	0
Future Vol, veh/h	3	0	1	3	0	45	6	1130	8	65	1158	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	0	-	-	-	125	-	120	245	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	1	3	0	49	7	1228	9	71	1259	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1904	-	629	1886	-	614	1259	0	0	1237	0	0
Stage 1	1400	-	-	1241	-	-	-	-	-	-	-	-
Stage 2	504	-	-	645	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	-	7.14	6.44	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	-	-	7.34	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	-	-	6.74	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	-	3.92	3.82	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	*73	0	*750	*75	0	*753	534	-	-	544	-	-
Stage 1	*259	0	-	*346	0	-	-	-	-	-	-	-
Stage 2	*772	0	-	*770	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*58	-	*750	*64	-	*753	534	-	-	544	-	-
Mov Cap-2 Maneuver	*58	-	-	*64	-	-	-	-	-	-	-	-
Stage 1	*226	-	-	*342	-	-	-	-	-	-	-	-
Stage 2	*713	-	-	*669	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	55.06	13.49	0.06	0.67
HCM LOS	F	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	534	-	-	58	750	64	753	544	-	-
HCM Lane V/C Ratio	0.012	-	-	0.056	0.001	0.051	0.065	0.13	-	-
HCM Control Delay (s/veh)	11.8	-	-	70.2	9.8	64.1	10.1	12.6	-	-
HCM Lane LOS	B	-	-	F	A	F	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0.2	0.2	0.4	-	-

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

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	697	3	9	740	0	2	0	8	0	0	0
Future Vol, veh/h	0	697	3	9	740	0	2	0	8	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	230	-	-	-	-	-	-	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	758	3	10	804	0	2	0	9	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	804	0	0	761	0	0	1181	1583	380	1203	-	402
Stage 1	-	-	-	-	-	-	759	759	-	824	-	-
Stage 2	-	-	-	-	-	-	422	824	-	379	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	1006	-	-	847	-	-	*230	135	617	220	0	*894
Stage 1	-	-	-	-	-	-	*365	413	-	520	0	-
Stage 2	-	-	-	-	-	-	*843	515	-	615	0	-
Platoon blocked, %	0	-	-		-	-	0	0		0		0
Mov Cap-1 Maneuver	1006	-	-	847	-	-	*227	133	617	214	-	*894
Mov Cap-2 Maneuver	-	-	-	-	-	-	*227	133	-	214	-	-
Stage 1	-	-	-	-	-	-	*365	413	-	512	-	-
Stage 2	-	-	-	-	-	-	*830	508	-	606	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.25	13.03	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	459	1006	-	-	43	-	-	-	-
HCM Lane V/C Ratio	0.024	-	-	-	0.012	-	-	-	-
HCM Control Delay (s/veh)	13	0	-	-	9.3	0.1	-	0	0
HCM Lane LOS	B	A	-	-	A	A	-	A	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-	-

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

Queues

1: Carlisle Blvd & Indian School Rd

06/05/2024

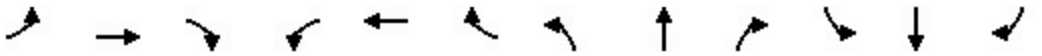


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	454	623	150	415	318	96	993	78	242	985	548
v/c Ratio	1.16	0.63	0.80	0.69	0.67	0.43	0.92	0.13	0.87	0.70	0.59
Control Delay (s/veh)	140.3	39.8	80.7	52.8	18.0	23.9	54.6	0.5	79.3	34.2	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	140.3	39.8	80.7	52.8	18.0	23.9	54.6	0.5	79.3	34.2	6.6
Queue Length 50th (ft)	~417	220	113	160	45	38	~411	0	180	331	20
Queue Length 95th (ft)	#621	272	#205	207	140	73	#556	0	#339	450	122
Internal Link Dist (ft)		276		410			418			216	
Turn Bay Length (ft)			170		120	115		150	245		
Base Capacity (vph)	390	1067	213	722	522	326	1084	588	284	1417	936
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.16	0.58	0.70	0.57	0.61	0.29	0.92	0.13	0.85	0.70	0.59

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	418	514	59	138	382	293	88	914	72	223	906	504
Future Volume (veh/h)	418	514	59	138	382	293	88	914	72	223	906	504
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	454	559	64	150	415	318	96	993	78	242	985	548
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	393	1048	120	176	726	324	201	991	442	268	1338	597
Arrive On Green	0.22	0.33	0.33	0.10	0.20	0.20	0.05	0.28	0.28	0.15	0.38	0.38
Sat Flow, veh/h	1781	3214	367	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	454	308	315	150	415	318	96	993	78	242	985	548
Grp Sat Flow(s),veh/h/ln	1781	1777	1804	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	26.5	17.0	17.1	9.9	12.6	24.0	4.6	33.5	4.5	16.0	28.7	39.5
Cycle Q Clear(g_c), s	26.5	17.0	17.1	9.9	12.6	24.0	4.6	33.5	4.5	16.0	28.7	39.5
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	393	579	588	176	726	324	201	991	442	268	1338	597
V/C Ratio(X)	1.15	0.53	0.53	0.85	0.57	0.98	0.48	1.00	0.18	0.90	0.74	0.92
Avail Cap(c_a), veh/h	393	579	588	215	726	324	322	991	442	269	1338	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	33.0	33.0	53.2	43.0	47.5	30.0	43.3	32.8	50.1	32.3	35.7
Incr Delay (d2), s/veh	94.5	0.9	0.9	19.8	1.1	45.2	0.7	29.0	0.9	30.4	3.6	21.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.9	7.4	7.5	5.4	5.6	13.4	2.0	18.4	1.8	9.3	12.7	18.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	141.3	33.9	34.0	72.9	44.1	92.7	30.7	72.3	33.7	80.6	35.9	57.1
LnGrp LOS	F	C	C	E	D	F	C	F	C	F	D	E
Approach Vol, veh/h		1077			883			1167			1775	
Approach Delay, s/veh		79.2			66.5			66.3			48.6	
Approach LOS		E			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.4	44.6	21.5	38.5	30.0	30.0	9.8	50.2
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	14.5	36.5	18.1	33.4	26.5	24.5	14.5	37.0
Max Q Clear Time (g_c+I1), s	11.9	19.1	18.0	35.5	28.5	26.0	6.6	41.5
Green Ext Time (p_c), s	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	62.7
HCM 7th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	53	0	1561	64	0	1633	0
Future Vol, veh/h	0	0	0	0	0	53	0	1561	64	0	1633	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	58	0	1697	70	0	1775	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	888	-	-	883	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*671	0	0	*702	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			0			0		-	-		-	-
Mov Cap-1 Maneuver	-	-	*671	-	-	*702	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	10.59	0	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	702	-	-
HCM Lane V/C Ratio	-	-	-	0.082	-	-
HCM Control Delay (s/veh)	-	-	0	10.6	-	-
HCM Lane LOS	-	-	A	B	-	-
HCM 95th %tile Q(veh)	-	-	-	0.3	-	-

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

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	14	11	0	164	8	1579	27	162	1608	3
Future Vol, veh/h	2	0	14	11	0	164	8	1579	27	162	1608	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	0	-	-	-	125	-	120	245	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	15	12	0	178	9	1716	29	176	1748	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2806	-	876	2785	-	858	1751	0	0	1746	0	0
Stage 1	2102	-	-	1734	-	-	-	-	-	-	-	-
Stage 2	704	-	-	1051	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	-	7.14	6.44	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	-	-	7.34	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	-	-	6.74	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	-	3.92	3.82	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	*20	0	*671	*20	0	*663	382	-	-	401	-	-
Stage 1	*102	0	-	*244	0	-	-	-	-	-	-	-
Stage 2	*680	0	-	*689	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*8	-	*671	*~ 11	-	*663	382	-	-	401	-	-
Mov Cap-2 Maneuver	*8	-	-	*~ 11	-	-	-	-	-	-	-	-
Stage 1	*57	-	-	*238	-	-	-	-	-	-	-	-
Stage 2	*486	-	-	*377	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	83.19	60.14	0.07	1.9
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	382	-	-	8	671	11	663	401	-	-
HCM Lane V/C Ratio	0.023	-	-	0.278	0.023	1.108	0.269	0.439	-	-
HCM Control Delay (s/veh)	14.7	-	-	$ 592.1	10.5	$ 771.6	12.4	20.8	-	-
HCM Lane LOS	B	-	-	F	B	F	B	C	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.1	2.2	1.1	2.2	-	-

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

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	967	7	5	969	0	2	0	24	0	0	0
Future Vol, veh/h	0	967	7	5	969	0	2	0	24	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	230	-	-	-	-	-	-	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1051	8	5	1053	0	2	0	26	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1053	0	0	1059	0	0	1592	2119	529	1590	-	527
Stage 1	-	-	-	-	-	-	1055	1055	-	1064	-	-
Stage 2	-	-	-	-	-	-	537	1064	-	526	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	850	-	-	654	-	-	*117	57	494	118	0	*824
Stage 1	-	-	-	-	-	-	*241	301	-	423	0	-
Stage 2	-	-	-	-	-	-	*777	432	-	503	0	-
Platoon blocked, %	0	-	-		-	-	0	0		0		0
Mov Cap-1 Maneuver	850	-	-	654	-	-	*115	56	494	110	-	*824
Mov Cap-2 Maneuver	-	-	-	-	-	-	*115	56	-	110	-	-
Stage 1	-	-	-	-	-	-	*241	301	-	418	-	-
Stage 2	-	-	-	-	-	-	*768	427	-	477	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.18	14.83	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	394	850	-	-	18	-	-	-	-
HCM Lane V/C Ratio	0.072	-	-	-	0.008	-	-	-	-
HCM Control Delay (s/veh)	14.8	0	-	-	10.6	0.1	-	0	0
HCM Lane LOS	B	A	-	-	B	A	-	A	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	-	-

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

APPENDIX G – Total Future (with site development) Synchro Outputs

Queues
1: Carlisle Blvd & Indian School Rd

07/24/2024

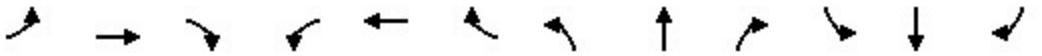


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	386	368	72	405	158	87	678	51	260	664	313
v/c Ratio	1.05	0.33	0.53	0.68	0.40	0.26	0.65	0.09	0.86	0.45	0.37
Control Delay (s/veh)	103.2	28.7	62.6	48.7	9.0	17.9	37.4	0.3	73.1	25.9	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	103.2	28.7	62.6	48.7	9.0	17.9	37.4	0.3	73.1	25.9	4.3
Queue Length 50th (ft)	~297	101	50	142	0	31	219	0	181	178	0
Queue Length 95th (ft)	#486	140	95	184	53	64	284	0	#389	263	60
Internal Link Dist (ft)		275		410			418			200	
Turn Bay Length (ft)			170		120	115		150	245		
Base Capacity (vph)	368	1123	209	778	471	438	1042	557	301	1475	842
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.05	0.33	0.34	0.52	0.34	0.20	0.65	0.09	0.86	0.45	0.37

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	355	290	49	66	373	145	80	624	47	239	611	288
Future Volume (veh/h)	355	290	49	66	373	145	80	624	47	239	611	288
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	386	315	53	72	405	158	87	678	51	260	664	313
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	928	154	92	526	235	325	1302	581	211	1561	696
Arrive On Green	0.21	0.30	0.30	0.05	0.15	0.15	0.05	0.37	0.37	0.12	0.44	0.44
Sat Flow, veh/h	1781	3049	507	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	386	182	186	72	405	158	87	678	51	260	664	313
Grp Sat Flow(s),veh/h/ln	1781	1777	1779	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	22.9	8.7	8.9	4.4	12.1	10.4	3.3	16.4	2.3	13.0	14.2	15.2
Cycle Q Clear(g_c), s	22.9	8.7	8.9	4.4	12.1	10.4	3.3	16.4	2.3	13.0	14.2	15.2
Prop In Lane	1.00		0.29	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	371	541	542	92	526	235	325	1302	581	211	1561	696
V/C Ratio(X)	1.04	0.34	0.34	0.78	0.77	0.67	0.27	0.52	0.09	1.24	0.43	0.45
Avail Cap(c_a), veh/h	371	551	552	211	782	349	455	1302	581	211	1561	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	29.6	29.7	51.5	45.0	44.3	20.2	27.3	22.8	48.5	21.3	21.5
Incr Delay (d2), s/veh	57.8	0.4	0.4	5.2	2.7	3.3	0.2	1.5	0.3	139.8	0.9	2.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.8	3.7	3.8	2.1	5.4	4.2	1.4	7.1	0.9	13.9	5.9	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	101.3	30.0	30.1	56.8	47.8	47.7	20.4	28.8	23.1	188.3	22.1	23.6
LnGrp LOS	F	C	C	E	D	D	C	C	C	F	C	C
Approach Vol, veh/h		754			635			816			1237	
Approach Delay, s/veh		66.5			48.8			27.5			57.4	
Approach LOS		E			D			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	39.0	16.5	45.3	26.4	21.8	8.5	53.3
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	13.0	34.1	13.0	32.4	22.9	24.2	13.0	32.4
Max Q Clear Time (g_c+I1), s	6.4	10.9	15.0	18.4	24.9	14.1	5.3	17.2
Green Ext Time (p_c), s	0.0	2.1	0.0	4.0	0.0	2.2	0.0	4.9

Intersection Summary	
HCM 7th Control Delay, s/veh	50.7
HCM 7th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	25	0	0	12	0	1112	12	0	1113	9
Future Vol, veh/h	0	0	25	0	0	12	0	1112	12	0	1113	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	27	0	0	13	0	1209	13	0	1210	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	610	-	-	611	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*750	0	0	*773	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			0			0		-	-		-	-
Mov Cap-1 Maneuver	-	-	*750	-	-	*773	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.98	9.74	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	750	773	-	-
HCM Lane V/C Ratio	-	-	0.036	0.017	-	-
HCM Control Delay (s/veh)	-	-	10	9.7	-	-
HCM Lane LOS	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-	-

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

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	0	9	3	0	45	34	1082	8	65	1110	9
Future Vol, veh/h	11	0	9	3	0	45	34	1082	8	65	1110	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	0	-	-	-	125	-	120	245	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	0	10	3	0	49	37	1176	9	71	1207	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1897	-	608	1874	-	588	1216	0	0	1185	0	0
Stage 1	1353	-	-	1250	-	-	-	-	-	-	-	-
Stage 2	544	-	-	624	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	-	7.14	6.44	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	-	-	7.34	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	-	-	6.74	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	-	3.92	3.82	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	*74	0	*750	*76	0	*753	565	-	-	583	-	-
Stage 1	*284	0	-	*341	0	-	-	-	-	-	-	-
Stage 2	*772	0	-	*770	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*56	-	*750	*62	-	*753	565	-	-	583	-	-
Mov Cap-2 Maneuver	*56	-	-	*62	-	-	-	-	-	-	-	-
Stage 1	*250	-	-	*318	-	-	-	-	-	-	-	-
Stage 2	*675	-	-	*668	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v51.25		13.65	0.36	0.66
HCM LOS	F	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	565	-	-	56	750	62	753	583	-	-
HCM Lane V/C Ratio	0.065	-	-	0.212	0.013	0.053	0.065	0.121	-	-
HCM Control Delay (s/veh)	11.8	-	-	85.1	9.9	66.7	10.1	12	-	-
HCM Lane LOS	B	-	-	F	A	F	B	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.7	0	0.2	0.2	0.4	-	-

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

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	662	3	9	704	28	2	0	8	25	0	17
Future Vol, veh/h	19	662	3	9	704	28	2	0	8	25	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	230	-	-	-	-	-	-	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	720	3	10	765	30	2	0	9	27	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	796	0	0	723	0	0	1165	1578	361	1201	-	398
Stage 1	-	-	-	-	-	-	763	763	-	800	-	-
Stage 2	-	-	-	-	-	-	402	815	-	401	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	1015	-	-	875	-	-	*238	137	635	221	0	*894
Stage 1	-	-	-	-	-	-	*363	411	-	541	0	-
Stage 2	-	-	-	-	-	-	*843	521	-	597	0	-
Platoon blocked, %	0	-	-		-	-	0	0		0		0
Mov Cap-1 Maneuver	1015	-	-	875	-	-	*225	132	635	210	-	*894
Mov Cap-2 Maneuver	-	-	-	-	-	-	*225	132	-	210	-	-
Stage 1	-	-	-	-	-	-	*356	403	-	533	-	-
Stage 2	-	-	-	-	-	-	*814	513	-	576	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.24	0.23	12.92	18.35
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	465	1015	-	-	42	-	-	210	894
HCM Lane V/C Ratio	0.023	0.02	-	-	0.011	-	-	0.129	0.021
HCM Control Delay (s/veh)	12.9	8.6	-	-	9.2	0.1	-	24.6	9.1
HCM Lane LOS	B	A	-	-	A	A	-	C	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.4	0.1

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

Queues

1: Carlisle Blvd & Indian School Rd

06/21/2024

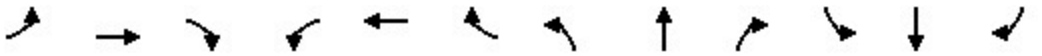


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	442	615	142	405	313	110	964	75	241	966	522
v/c Ratio	1.13	0.61	0.77	0.68	0.66	0.46	0.88	0.12	0.85	0.68	0.56
Control Delay (s/veh)	129.7	39.4	79.1	53.0	17.2	24.2	51.2	0.4	76.8	34.0	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	129.7	39.4	79.1	53.0	17.2	24.2	51.2	0.4	76.8	34.0	6.1
Queue Length 50th (ft)	~397	214	108	155	40	44	390	0	178	323	15
Queue Length 95th (ft)	#601	267	#189	202	132	82	#532	0	#338	445	111
Internal Link Dist (ft)		276		410			418			216	
Turn Bay Length (ft)			170		120	115		150	245		
Base Capacity (vph)	390	1066	213	722	524	331	1090	591	288	1411	926
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.13	0.58	0.67	0.56	0.60	0.33	0.88	0.13	0.84	0.68	0.56

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	407	499	67	131	373	288	101	887	69	222	889	480
Future Volume (veh/h)	407	499	67	131	373	288	101	887	69	222	889	480
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	442	542	73	142	405	313	110	964	75	241	966	522
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	393	1040	140	168	726	324	213	993	443	267	1315	587
Arrive On Green	0.22	0.33	0.33	0.09	0.20	0.20	0.06	0.28	0.28	0.15	0.37	0.37
Sat Flow, veh/h	1781	3148	423	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	442	305	310	142	405	313	110	964	75	241	966	522
Grp Sat Flow(s),veh/h/ln	1781	1777	1794	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	26.5	16.7	16.8	9.4	12.3	23.5	5.2	32.2	4.3	16.0	28.2	37.1
Cycle Q Clear(g_c), s	26.5	16.7	16.8	9.4	12.3	23.5	5.2	32.2	4.3	16.0	28.2	37.1
Prop In Lane	1.00		0.24	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	393	587	593	168	726	324	213	993	443	267	1315	587
V/C Ratio(X)	1.12	0.52	0.52	0.84	0.56	0.97	0.52	0.97	0.17	0.90	0.73	0.89
Avail Cap(c_a), veh/h	393	587	593	215	726	324	323	993	443	269	1315	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	32.5	32.5	53.5	42.9	47.4	29.8	42.7	32.7	50.2	32.7	35.5
Incr Delay (d2), s/veh	83.4	0.8	0.8	17.3	1.0	41.1	0.7	22.3	0.8	30.3	3.7	18.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.6	7.2	7.3	5.0	5.4	12.8	2.3	16.9	1.7	9.3	12.5	16.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	130.1	33.3	33.3	70.7	43.8	88.5	30.5	65.0	33.5	80.4	36.4	53.6
LnGrp LOS	F	C	C	E	D	F	C	E	C	F	D	D
Approach Vol, veh/h		1057			860			1149			1729	
Approach Delay, s/veh		73.8			64.5			59.7			47.7	
Approach LOS		E			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.8	45.2	21.5	38.5	30.0	30.0	10.6	49.4
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	14.5	36.5	18.1	33.4	26.5	24.5	14.5	37.0
Max Q Clear Time (g_c+I1), s	11.4	18.8	18.0	34.2	28.5	25.5	7.2	39.1
Green Ext Time (p_c), s	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	59.3
HCM 7th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	47	0	0	53	0	1518	64	0	1541	21
Future Vol, veh/h	0	0	47	0	0	53	0	1518	64	0	1541	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	51	0	0	58	0	1650	70	0	1675	23

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	849	-	-	860	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*711	0	0	*702	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			0			0		-	-		-	-
Mov Cap-1 Maneuver	-	-	*711	-	-	*702	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.46	10.59	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	711	702	-	-
HCM Lane V/C Ratio	-	-	0.072	0.082	-	-
HCM Control Delay (s/veh)	-	-	10.5	10.6	-	-
HCM Lane LOS	-	-	B	B	-	-
HCM 95th %tile Q(veh)	-	-	0.2	0.3	-	-

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

Intersection	
Int Delay, s/veh	16.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	0	24	11	0	164	45	1499	27	162	1527	23
Future Vol, veh/h	22	0	24	11	0	164	45	1499	27	162	1527	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	0	-	-	-	125	-	120	245	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	0	26	12	0	178	49	1629	29	176	1660	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2774	-	842	2743	-	815	1685	0	0	1659	0	0
Stage 1	2024	-	-	1727	-	-	-	-	-	-	-	-
Stage 2	750	-	-	1016	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	-	7.14	6.44	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	-	-	7.34	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	-	-	6.74	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	-	3.92	3.82	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	*~ 20	0	*711	*21	0	*677	353	-	-	425	-	-
Stage 1	*95	0	-	*222	0	-	-	-	-	-	-	-
Stage 2	*695	0	-	*729	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*~ 8	-	*711	*~ 10	-	*677	353	-	-	425	-	-
Mov Cap-2 Maneuver	*~ 8	-	-	*~ 10	-	-	-	-	-	-	-	-
Stage 1	*56	-	-	*191	-	-	-	-	-	-	-	-
Stage 2	*441	-	-	*412	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 917.3	62.14	0.48	1.83
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	353	-	-	8	711	10	677	425	-	-
HCM Lane V/C Ratio	0.139	-	-	3.139	0.037	1.147	0.263	0.414	-	-
HCM Control Delay (s/veh)	16.8	-	-	$ 1906.8	10.3	$ 806.7	12.2	19.3	-	-
HCM Lane LOS	C	-	-	F	B	F	B	C	-	-
HCM 95th %tile Q(veh)	0.5	-	-	4.2	0.1	2.2	1.1	2	-	-

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

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	910	7	5	912	37	2	0	24	37	0	28
Future Vol, veh/h	27	910	7	5	912	37	2	0	24	37	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	230	-	-	-	-	-	-	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	989	8	5	991	40	2	0	26	40	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1032	0	0	997	0	0	1558	2094	498	1576	-	516
Stage 1	-	-	-	-	-	-	1052	1052	-	1022	-	-
Stage 2	-	-	-	-	-	-	507	1042	-	553	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	850	-	-	690	-	-	*121	59	517	116	0	*841
Stage 1	-	-	-	-	-	-	*242	302	-	433	0	-
Stage 2	-	-	-	-	-	-	*793	430	-	485	0	-
Platoon blocked, %	0	-	-		-	-	0	0		0		0
Mov Cap-1 Maneuver	850	-	-	690	-	-	*111	56	517	105	-	*841
Mov Cap-2 Maneuver	-	-	-	-	-	-	*111	56	-	105	-	-
Stage 1	-	-	-	-	-	-	*234	291	-	428	-	-
Stage 2	-	-	-	-	-	-	*756	426	-	444	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.27	0.16	14.59	37.62
HCM LOS			B	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	404	850	-	-	18	-	-	105	841
HCM Lane V/C Ratio	0.07	0.035	-	-	0.008	-	-	0.382	0.036
HCM Control Delay (s/veh)	14.6	9.4	-	-	10.3	0.1	-	58.9	9.4
HCM Lane LOS	B	A	-	-	B	A	-	F	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	1.6	0.1

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

Queues

1: Carlisle Blvd & Indian School Rd

07/24/2024

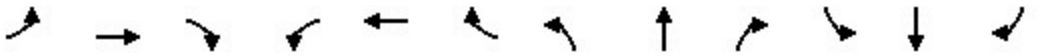


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	405	387	75	425	165	90	712	54	273	697	329
v/c Ratio	1.10	0.35	0.54	0.69	0.40	0.27	0.68	0.10	0.94	0.48	0.39
Control Delay (s/veh)	118.2	28.6	62.6	48.3	8.7	18.4	38.3	0.3	87.3	27.0	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	118.2	28.6	62.6	48.3	8.7	18.4	38.3	0.3	87.3	27.0	4.4
Queue Length 50th (ft)	~325	106	52	149	0	32	233	0	193	192	0
Queue Length 95th (ft)	#517	147	97	193	54	66	300	0	#413	280	62
Internal Link Dist (ft)		275		410			418			200	
Turn Bay Length (ft)			170		120	115		150	245		
Base Capacity (vph)	368	1130	209	778	476	430	1042	557	290	1447	842
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.10	0.34	0.36	0.55	0.35	0.21	0.68	0.10	0.94	0.48	0.39

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	373	304	52	69	391	152	83	655	50	251	641	303
Future Volume (veh/h)	373	304	52	69	391	152	83	655	50	251	641	303
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	405	330	57	75	425	165	90	712	54	273	697	329
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	935	160	96	547	244	310	1282	572	211	1535	685
Arrive On Green	0.21	0.31	0.31	0.05	0.15	0.15	0.05	0.36	0.36	0.12	0.43	0.43
Sat Flow, veh/h	1781	3035	519	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	405	192	195	75	425	165	90	712	54	273	697	329
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	22.9	9.2	9.4	4.6	12.6	10.8	3.5	17.6	2.5	13.0	15.2	16.4
Cycle Q Clear(g_c), s	22.9	9.2	9.4	4.6	12.6	10.8	3.5	17.6	2.5	13.0	15.2	16.4
Prop In Lane	1.00		0.29	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	371	548	548	96	547	244	310	1282	572	211	1535	685
V/C Ratio(X)	1.09	0.35	0.36	0.78	0.78	0.68	0.29	0.56	0.09	1.30	0.45	0.48
Avail Cap(c_a), veh/h	371	551	551	211	782	349	437	1282	572	211	1535	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	29.5	29.6	51.4	44.7	44.0	20.6	28.1	23.3	48.5	22.1	22.4
Incr Delay (d2), s/veh	73.8	0.4	0.4	5.1	3.2	3.3	0.2	1.7	0.3	164.0	1.0	2.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.5	3.9	4.0	2.2	5.7	4.4	1.4	7.6	1.0	15.3	6.4	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	117.3	29.9	30.0	56.5	47.9	47.2	20.8	29.9	23.6	212.5	23.0	24.8
LnGrp LOS	F	C	C	E	D	D	C	C	C	F	C	C
Approach Vol, veh/h		792			665			856			1299	
Approach Delay, s/veh		74.6			48.7			28.5			63.3	
Approach LOS		E			D			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	39.4	16.5	44.7	26.4	22.4	8.6	52.5
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	13.0	34.1	13.0	32.4	22.9	24.2	13.0	32.4
Max Q Clear Time (g_c+I1), s	6.6	11.4	15.0	19.6	24.9	14.6	5.5	18.4
Green Ext Time (p_c), s	0.0	2.2	0.0	4.0	0.0	2.3	0.0	5.0

Intersection Summary	
HCM 7th Control Delay, s/veh	54.8
HCM 7th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	25	0	0	12	0	1168	12	0	1170	9
Future Vol, veh/h	0	0	25	0	0	12	0	1168	12	0	1170	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	27	0	0	13	0	1270	13	0	1272	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	641	-	-	641	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*750	0	0	*759	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			0			0		-	-		-	-
Mov Cap-1 Maneuver	-	-	*750	-	-	*759	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.98	9.83	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	750	759	-	-
HCM Lane V/C Ratio	-	-	0.036	0.017	-	-
HCM Control Delay (s/veh)	-	-	10	9.8	-	-
HCM Lane LOS	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-	-

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

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	0	9	3	0	45	34	1138	8	65	1167	9
Future Vol, veh/h	11	0	9	3	0	45	34	1138	8	65	1167	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	0	-	-	-	125	-	120	245	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	0	10	3	0	49	37	1237	9	71	1268	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1983	-	639	1960	-	618	1278	0	0	1246	0	0
Stage 1	1415	-	-	1311	-	-	-	-	-	-	-	-
Stage 2	569	-	-	649	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	-	7.14	6.44	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	-	-	7.34	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	-	-	6.74	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	-	3.92	3.82	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	*65	0	*750	*67	0	*753	520	-	-	538	-	-
Stage 1	*252	0	-	*303	0	-	-	-	-	-	-	-
Stage 2	*772	0	-	*770	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*49	-	*750	*54	-	*753	520	-	-	538	-	-
Mov Cap-2 Maneuver	*49	-	-	*54	-	-	-	-	-	-	-	-
Stage 1	*219	-	-	*282	-	-	-	-	-	-	-	-
Stage 2	*671	-	-	*660	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v59.77		14.27	0.36	0.67
HCM LOS	F	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	520	-	-	49	750	54	753	538	-	-
HCM Lane V/C Ratio	0.071	-	-	0.244	0.013	0.061	0.065	0.131	-	-
HCM Control Delay (s/veh)	12.4	-	-	100.6	9.9	76.5	10.1	12.7	-	-
HCM Lane LOS	B	-	-	F	A	F	B	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.8	0	0.2	0.2	0.5	-	-

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

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	697	3	9	740	28	2	0	8	25	0	17
Future Vol, veh/h	19	697	3	9	740	28	2	0	8	25	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	230	-	-	-	-	-	-	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	758	3	10	804	30	2	0	9	27	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	835	0	0	761	0	0	1222	1655	380	1259	-	417
Stage 1	-	-	-	-	-	-	801	801	-	839	-	-
Stage 2	-	-	-	-	-	-	422	854	-	420	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	974	-	-	847	-	-	*212	120	617	196	0	*894
Stage 1	-	-	-	-	-	-	*344	395	-	507	0	-
Stage 2	-	-	-	-	-	-	*843	496	-	581	0	-
Platoon blocked, %	0	-	-		-	-	0	0		0		0
Mov Cap-1 Maneuver	974	-	-	847	-	-	*200	116	617	187	-	*894
Mov Cap-2 Maneuver	-	-	-	-	-	-	*200	116	-	187	-	-
Stage 1	-	-	-	-	-	-	*337	387	-	500	-	-
Stage 2	-	-	-	-	-	-	*813	489	-	561	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.23	0.24	13.48	20.08
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	435	974	-	-	40	-	-	187	894
HCM Lane V/C Ratio	0.025	0.021	-	-	0.012	-	-	0.146	0.021
HCM Control Delay (s/veh)	13.5	8.8	-	-	9.3	0.1	-	27.5	9.1
HCM Lane LOS	B	A	-	-	A	A	-	D	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.5	0.1

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

Queues

1: Carlisle Blvd & Indian School Rd

06/21/2024

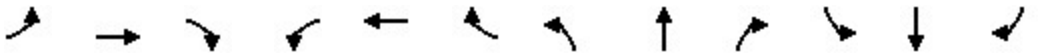


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	464	645	150	425	328	114	1012	78	253	1014	548
v/c Ratio	1.18	0.64	0.79	0.69	0.68	0.51	0.95	0.13	0.88	0.73	0.59
Control Delay (s/veh)	149.3	39.9	80.7	52.8	19.6	26.8	60.9	0.4	80.1	36.2	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	149.3	39.9	80.7	52.8	19.6	26.8	60.9	0.4	80.1	36.2	7.4
Queue Length 50th (ft)	~433	228	113	163	54	46	~440	0	190	350	28
Queue Length 95th (ft)	#639	283	#205	213	152	84	#573	0	#359	#485	141
Internal Link Dist (ft)		275		410			418			216	
Turn Bay Length (ft)			170		120	115		150	245		
Base Capacity (vph)	390	1066	213	722	521	311	1059	578	288	1385	917
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.19	0.61	0.70	0.59	0.63	0.37	0.96	0.13	0.88	0.73	0.60

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	427	524	69	138	391	302	105	931	72	233	933	504
Future Volume (veh/h)	427	524	69	138	391	302	105	931	72	233	933	504
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	464	570	75	150	425	328	114	1012	78	253	1014	548
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	393	1029	135	176	726	324	207	989	441	269	1309	584
Arrive On Green	0.22	0.33	0.33	0.10	0.20	0.20	0.06	0.28	0.28	0.15	0.37	0.37
Sat Flow, veh/h	1781	3158	414	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	464	320	325	150	425	328	114	1012	78	253	1014	548
Grp Sat Flow(s),veh/h/ln	1781	1777	1796	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	26.5	17.8	17.9	9.9	13.0	24.5	5.4	33.4	4.5	16.9	30.3	40.1
Cycle Q Clear(g_c), s	26.5	17.8	17.9	9.9	13.0	24.5	5.4	33.4	4.5	16.9	30.3	40.1
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	393	579	585	176	726	324	207	989	441	269	1309	584
V/C Ratio(X)	1.18	0.55	0.56	0.85	0.59	1.01	0.55	1.02	0.18	0.94	0.77	0.94
Avail Cap(c_a), veh/h	393	579	585	215	726	324	314	989	441	269	1309	584
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	33.3	33.3	53.2	43.2	47.8	30.4	43.3	32.9	50.4	33.5	36.6
Incr Delay (d2), s/veh	104.1	1.1	1.2	19.8	1.2	53.5	0.9	34.6	0.9	38.9	4.5	24.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.9	7.7	7.9	5.4	5.8	14.3	2.3	19.1	1.8	10.3	13.5	19.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	150.9	34.4	34.4	72.9	44.4	101.3	31.3	77.9	33.7	89.3	38.0	61.4
LnGrp LOS	F	C	C	E	D	F	C	F	C	F	D	E
Approach Vol, veh/h		1109			903			1204			1815	
Approach Delay, s/veh		83.1			69.8			70.6			52.2	
Approach LOS		F			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.4	44.6	21.6	38.4	30.0	30.0	10.8	49.2
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	14.5	36.5	18.1	33.4	26.5	24.5	14.5	37.0
Max Q Clear Time (g_c+I1), s	11.9	19.9	18.9	35.4	28.5	26.5	7.4	42.1
Green Ext Time (p_c), s	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	66.6
HCM 7th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	47	0	0	53	0	1596	64	0	1620	21
Future Vol, veh/h	0	0	47	0	0	53	0	1596	64	0	1620	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	51	0	0	58	0	1735	70	0	1761	23

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	892	-	-	902	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*671	0	0	*689	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			0			0		-	-		-	-
Mov Cap-1 Maneuver	-	-	*671	-	-	*689	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.8	10.71	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	671	689	-	-
HCM Lane V/C Ratio	-	-	0.076	0.084	-	-
HCM Control Delay (s/veh)	-	-	10.8	10.7	-	-
HCM Lane LOS	-	-	B	B	-	-
HCM 95th %tile Q(veh)	-	-	0.2	0.3	-	-

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

Intersection	
Int Delay, s/veh	19.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	0	24	11	0	164	45	1577	27	162	1606	23
Future Vol, veh/h	22	0	24	11	0	164	45	1577	27	162	1606	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	0	-	-	-	125	-	120	245	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	0	26	12	0	178	49	1714	29	176	1746	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2894	-	885	2862	-	857	1771	0	0	1743	0	0
Stage 1	2110	-	-	1812	-	-	-	-	-	-	-	-
Stage 2	783	-	-	1050	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	-	7.14	6.44	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	-	-	7.34	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	-	-	6.74	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	-	3.92	3.82	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	*~ 17	0	*671	*18	0	*663	371	-	-	402	-	-
Stage 1	*100	0	-	*206	0	-	-	-	-	-	-	-
Stage 2	*680	0	-	*689	0	-	-	-	-	-	-	-
Platoon blocked, %			0			0	0	-	-	0	-	-
Mov Cap-1 Maneuver	*~ 6	-	*671	*~ 8	-	*663	371	-	-	402	-	-
Mov Cap-2 Maneuver	*~ 6	-	-	*~ 8	-	-	-	-	-	-	-	-
Stage 1	*56	-	-	*178	-	-	-	-	-	-	-	-
Stage 2	*431	-	-	*372	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	$ 1182.64	78.16	0.44	1.88
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	371	-	-	6	671	8	663	402	-	-
HCM Lane V/C Ratio	0.132	-	-	3.914	0.039	1.42	0.269	0.438	-	-
HCM Control Delay (s/veh)	16.2	-	-	$ 2461.3	10.5	$ 1058.3	12.4	20.8	-	-
HCM Lane LOS	C	-	-	F	B	F	B	C	-	-
HCM 95th %tile Q(veh)	0.5	-	-	4.3	0.1	2.4	1.1	2.2	-	-

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

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	957	7	5	958	37	2	0	24	37	0	28
Future Vol, veh/h	27	957	7	5	958	37	2	0	24	37	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	230	-	-	-	-	-	-	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	1040	8	5	1041	40	2	0	26	40	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1082	0	0	1048	0	0	1634	2195	524	1651	-	541
Stage 1	-	-	-	-	-	-	1103	1103	-	1072	-	-
Stage 2	-	-	-	-	-	-	532	1092	-	579	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	-	3.32
Pot Cap-1 Maneuver	823	-	-	660	-	-	*106	49	498	102	0	*824
Stage 1	-	-	-	-	-	-	*225	285	-	416	0	-
Stage 2	-	-	-	-	-	-	*778	415	-	468	0	-
Platoon blocked, %	0	-	-		-	-	0	0		0		0
Mov Cap-1 Maneuver	823	-	-	660	-	-	*98	47	498	92	-	*824
Mov Cap-2 Maneuver	-	-	-	-	-	-	*98	47	-	92	-	-
Stage 1	-	-	-	-	-	-	*217	275	-	411	-	-
Stage 2	-	-	-	-	-	-	*740	411	-	428	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.26	0.17	15.28	44.53
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	379	823	-	-	17	-	-	92	824
HCM Lane V/C Ratio	0.075	0.036	-	-	0.008	-	-	0.435	0.037
HCM Control Delay (s/veh)	15.3	9.5	-	-	10.5	0.1	-	71	9.5
HCM Lane LOS	C	A	-	-	B	A	-	F	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	1.8	0.1

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