

Traffic Impact Study Proposed Residential Development

Crest Hill, Illinois



Prepared For:



January 22, 2026

1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed residential development to be located in Crest Hill, Illinois. The site is located in the southeast quadrant of the intersection of Weber Road and Renwick Road and is proposed to contain apartment buildings with 260 residential units. Vehicle parking will be accommodated via 439 surface parking spaces and 120 enclosed parking spaces. Access to the residential development will be provided via six access drives that will connect to the internal private roads serving the site area that connect to the surrounding street network through the following existing access roads: (1) a right-in/right-out (RIRO) access drive off Renwick Road, (2) a full-movement access drive off Renwick Road, and (3) a full-movement signalized access drive off Weber Road.

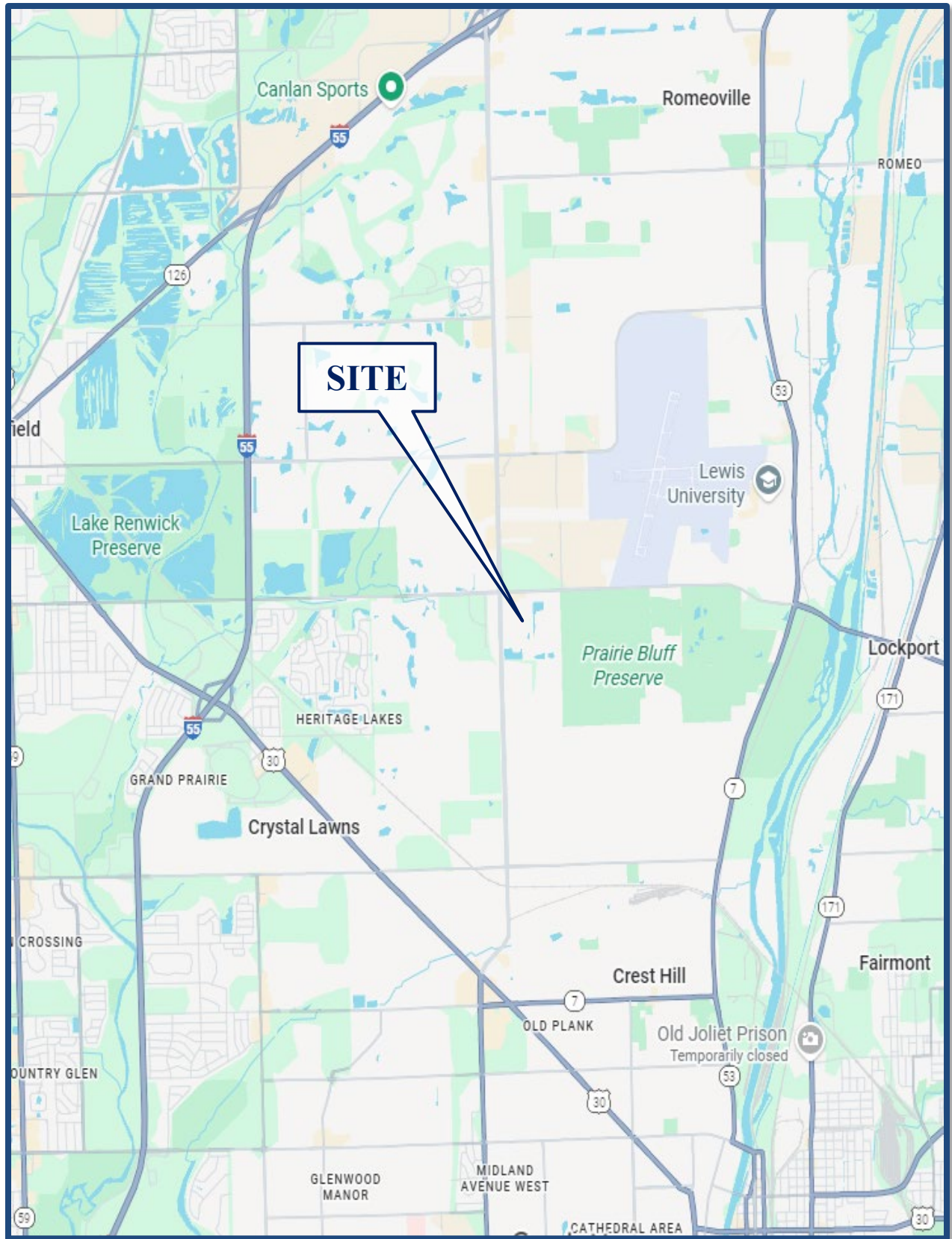
The purpose of this study was to examine existing traffic conditions to establish a base condition, assess the impact that the proposed development would have on traffic conditions in the area, and determine if any roadway and/or traffic control improvements are needed to accommodate the traffic generated by the proposed residential development. **Figure 1** shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site.

The sections of this report present the following:

- Existing roadway conditions
- A description of the proposed development
- Directional distribution of development-generated traffic
- Vehicle trip generation for the proposed development
- Future traffic conditions, including access to the development
- Traffic analyses for the weekday morning and weekday evening peak hours
- Signal warrant evaluation for the intersection of Weber Road with Ryan Drive
- Recommendations with respect to adequacy of the site access and adjacent roadway system

Traffic capacity analyses were conducted for the weekday morning and weekday evening peak hours for the following conditions:

1. Existing Conditions – Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.
2. Year 2032 No-Build Conditions – Analyzes the capacity of the existing roadway system using the existing peak hour traffic volumes increased by an ambient area growth factor not attributable to any particular development.
3. Year 2032 Total Projected Conditions – Analyzes the capacity of the future roadway system using the projected traffic volumes that include the existing traffic volumes, ambient area growth not attributable to any particular development, and the traffic estimated to be generated by the full buildout of the proposed development.



Site Location

Figure 1

*Proposed Residential Development
Crest Hill, Illinois*



Aerial View of Site

Figure 2

2. Existing Conditions

The following provides a description of the geographical location of the site, physical characteristics of the area roadway system including lane usage and traffic control devices, and existing peak hour traffic volumes.

Site Location

The site is located in the southeast quadrant of the intersection of Renwick Road with Weber Road in Crest Hill, Illinois. The site is bound by commercials and vacant out lots on the west and north, Ryan Drive on the south and a water detention pond on the east of the site. Land uses in the vicinity of the site consists of a mix of single-family detached, single-family attached and retail/commercial.

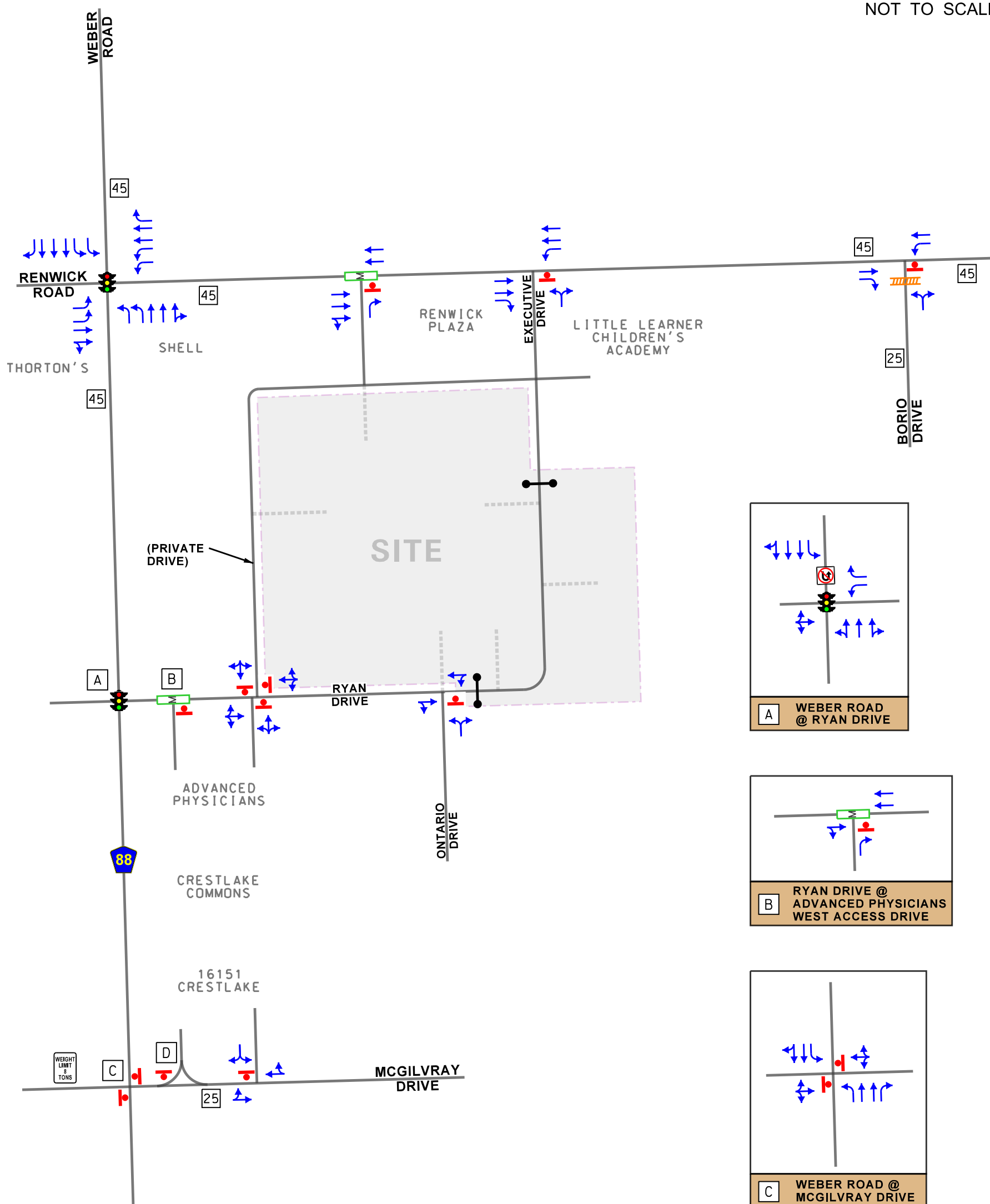
Existing Roadway System Characteristics

The characteristics of the existing roadways near the development are described below and illustrated in **Figure 3**.

Weber Road is a north-south other principal arterial roadway that provides three travel lanes in each direction just north of McGilvray Drive and two travel lanes in each direction just south of Ryan Drive. At its signalized intersection with Renwick Road, Weber Road provides two left-turn lanes, two through lanes and a shared through/right-turn lane on the northbound approach and two left-turn lanes, three through lanes and an exclusive right-turn lane on the southbound approach. At its signalized intersection with Ryan Drive, Weber Road provides a shared left-turn/through lane, a through lane, and shared through/right-turn lane on the northbound approach and an exclusive left-turn lane, two through lanes and a shared through/right turn lane on the southbound approach. Furthermore, southbound U-turns are not permitted at this intersection. At its unsignalized intersection with McGilvray Drive, Weber Road provides an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane on the northbound approach and an exclusive left-turn lane, a through lane and a shared through/right-turn lane on the southbound approach. Weber Road is under the jurisdiction of Will County Division of Transportation (WCDOT), is classified by IDOT as a Strategic Regional Arterial (SRA), has a posted speed limit of 45 miles per hour, carries an Annual Average Daily Traffic (AADT) volume of 33,900 vehicles (IDOT 2023) north of Renwick Road and an AADT volume of 24,500 vehicles (IDOT 2023) south of Renwick Road.

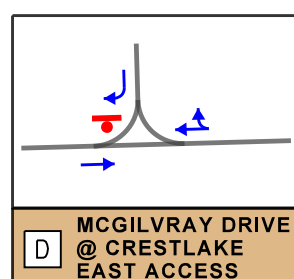
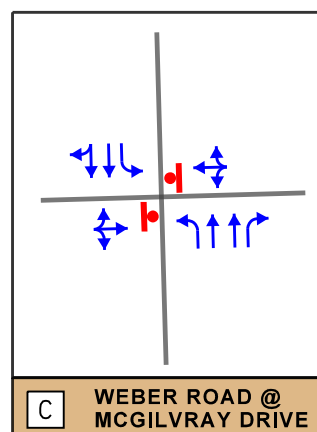
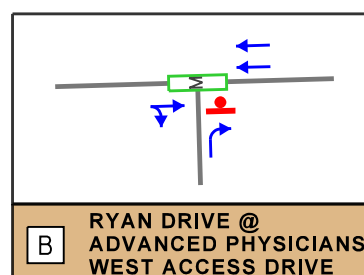
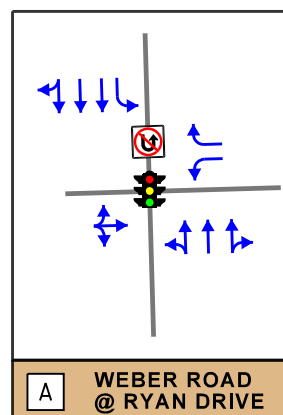


NOT TO SCALE



LEGEND

- TRAVEL LANE
- TRAFFIC SIGNAL
- STOP SIGN
- SPEED LIMIT SIGN
- NO U-TURN SIGN
- CONCRETE BARRICADE
- MEDIAN
- HIGH VISIBILITY CROSSWALK



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EXISTING ROADWAY CHARACTERISTICS

Renwick Road is an east-west other principal arterial roadway that generally provides two travel lanes in each direction. Exceptions include the eastbound segment between Weber Road and Executive Drive, which provides three travel lanes, and a segment approximately 350 feet east of Executive Drive, which provides one travel lane in each direction. At its signalized intersection with Weber Road, Renwick Road provides two left-turn lanes, a through lane and a shared through/right-turn lane on the eastbound approach and two left-turn lanes, two through lanes and an exclusive right-turn lane on the westbound approach. At its unsignalized intersection with Executive Drive, Renwick Road provides two through lanes and an exclusive right-turn lane on the eastbound approach and an exclusive left-turn lane and two through lanes on the westbound approach. At its unsignalized intersection with Borio Drive, Renwick Road provides a through lane and an exclusive right-turn lane on the eastbound approach and an exclusive left-turn lane and a through lane on the westbound approach. Renwick Road is under the jurisdiction of WCDOT, has a posted speed limit of 45 miles per hour, carries an Annual Average Daily Traffic (AADT) volume of 17,900 vehicles (IDOT 2023) west of Weber Road and an AADT volume of 13,800 vehicles (IDOT 2023) east of Weber Road.

Ryan Drive is an east-west local roadway that provides one travel lane in each direction. At its signalized intersection with Weber Road, Ryan Drive provides a shared left-turn/through/right-turn lane on the eastbound approach and an exclusive left-turn lane and an exclusive right-turn lane on the westbound approach. At its unsignalized intersection with Ontario Street, Ryan Drive provides a shared through/right-turn lane on the eastbound approach and a shared left-turn/through lane on the westbound approach. It is important to note that Ryan Drive east of Ontario Street is currently blocked with concrete barricades that will be eliminated with the proposed development.

Borio Drive is a north-south is a minor collector roadway that provides one travel lane in each direction. At its unsignalized intersection with Renwick Road, Borio Drive provides a shared left-turn/right-turn lane on the northbound approach that operates under stop sign control. Borio Drive provides a high visibility crosswalk on the south leg of this intersection. Borio Drive is under the jurisdiction of the City of Crest Hill, carries an AADT volume of 1,150 vehicles (IDOT 2023), and has a posted speed limit of 25 miles per hour.

McGilvray Drive is an east-west local roadway that provides one travel lane in each direction. At its unsignalized intersection with Weber Road, McGilvray Drive provides a shared left-turn/through/right-turn lane on both approaches that operate under stop sign control. McGilvray Drive is under the jurisdiction of the City of Crest Hill and has a posted speed limit of 25 miles per hour east of Weber Road.

Executive Drive is a north-south local roadway that provides one travel lane in each direction. At its unsignalized intersection with Renwick Road, Executive Drive provides a shared left-turn/right-turn lane on the northbound approach that operates under stop sign control. Executive Drive is under the jurisdiction of the City of Crest Hill.

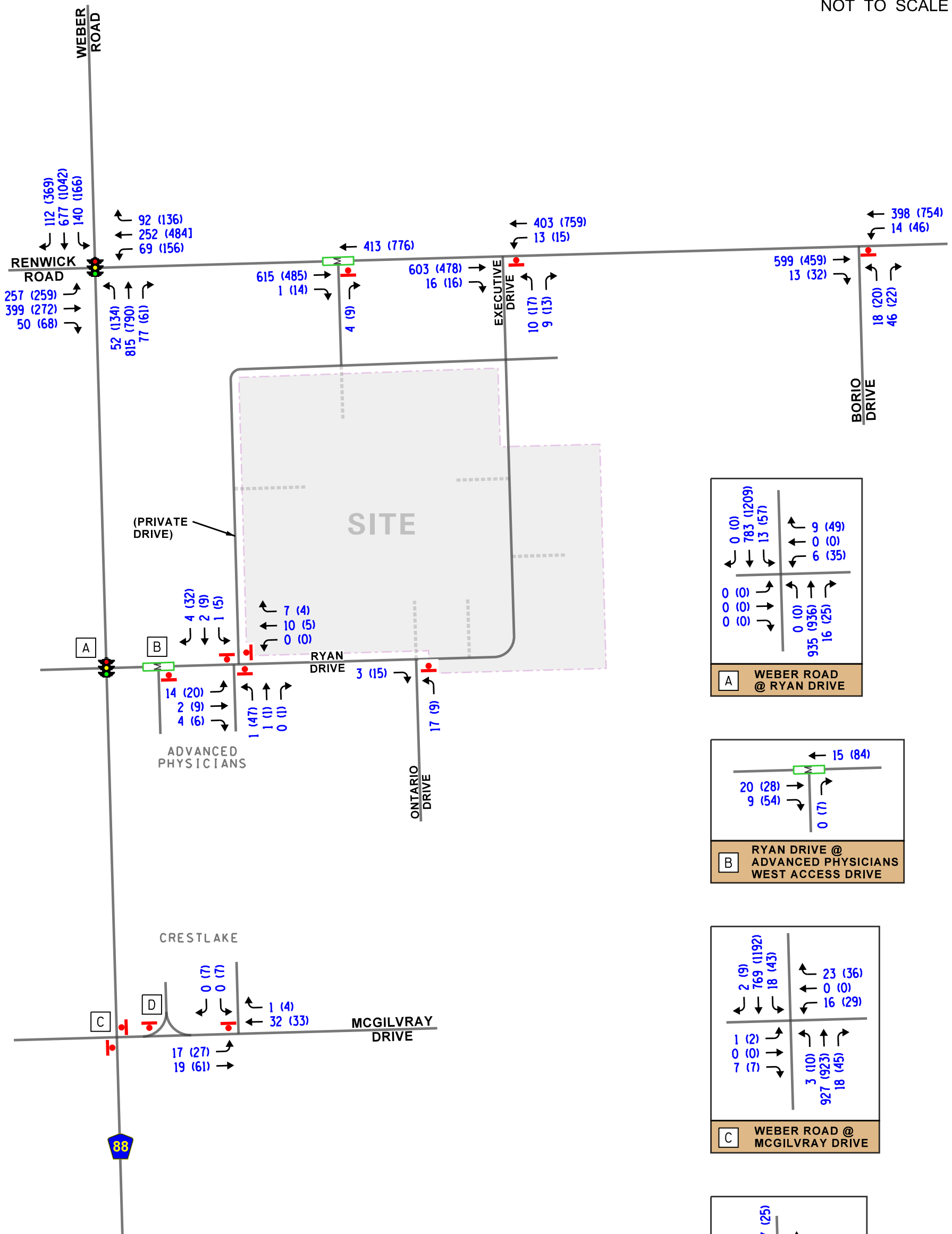
Ontario Street is a north-south local roadway that provides one travel lane in each direction. At its unsignalized intersection with Ryan Drive, Ontario Street provides a shared left-turn/right-turn lane on the northbound approach that operates under stop sign control. Ontario Street is under the jurisdiction of the City of Crest Hill.

Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period traffic counts using Miovision Scout Video Collection Units during the morning (7:00 A.M. to 9:00 A.M.) and evening (4:00 P.M. to 6:00 P.M.) peak periods at the following intersections:

- Renwick Road with Weber Road (Tuesday, January 6, 2026)
- Renwick Road with N-S Access Road (Tuesday, January 6, 2026)
- Renwick Road with Executive Drive (Wednesday, January 7, 2026)
- Weber Road with Ryan Drive (Tuesday, January 6, 2026)
- Ryan Drive with Advanced Physicians Access Drive (west) (Tuesday, January 6, 2026)
- Ryan Drive with Advanced Physicians Access Drive (east) (Tuesday, January 6, 2026)
- Ryan Drive with Ontario Street (Tuesday, January 6, 2026)
- Renwick Road with Borio Drive (Tuesday, January 6, 2026)
- McGilvray Drive with Weber Road (Tuesday, January 6, 2026)
- McGilvray Drive with Crest Lake Access Drive (west) (Tuesday, January 6, 2026)
- McGilvray Drive with Crest Lake Access Drive (east) (Tuesday, January 6, 2026)

The results of the traffic counts show that the peak hours of traffic generally occurred between 7:15 A.M. and 8:15 A.M. during the weekday morning peak period and between 4:00 P.M. and 5:00 P.M. during the weekday evening peak period. The existing peak hour vehicle traffic volumes are shown in **Figure 4**. Copies of the traffic count summary sheets are included in the Appendix.



Crash Data Summary

KLOA, Inc. obtained crash data¹ from IDOT for the most recent past five years available (2020 to 2024) for the intersections within the study area. **Tables 1** through **5** show the summary of the crash data at the intersections within the study area. Furthermore, no fatalities were reported at the intersections during the reviewed period.

Table 1

RENWICK ROAD WITH WEBER ROAD – CRASH SUMMARY

Year	Type of Crash								Severity		
	A	HO	O	RE	S	T	Other	Total	PD	I	F
2020	0	0	0	3	0	3	0	6	3	4	0
2021	1	0	0	12	3	2	0	18	15	3	0
2022	2	0	0	6	1	6	0	15	9	8	0
2023	3	0	1	7	1	6	0	18	15	4	0
2024	<u>1</u>	<u>0</u>	<u>0</u>	<u>5</u>	<u>0</u>	<u>5</u>	<u>0</u>	<u>11</u>	<u>9</u>	<u>2</u>	<u>0</u>
Total	7	0	1	33	5	22	0	68	51	21	0
Avg	1.4	0	<1.0	6.6	1	4.4	0	13.6	10.2	4.2	0
A – Angle; HO – Head On; O – Object; RE – Rear End; S – Sideswipe; T – Turning PD – Property Damage; I – Injury; F – Fatal											

¹ IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s).

Table 2

WEBER ROAD WITH RYAN DRIVE – CRASH SUMMARY

Year	Type of Crash								Severity		
	A	HO	O	RE	S	T	Other	Total	PD	I	F
2020	0	0	0	1	0	0	0	1	0	2	0
2021	0	0	0	0	0	0	0	0	0	0	0
2022	0	0	0	1	0	1	0	2	1	1	0
2023	0	0	0	0	0	0	0	0	0	0	0
2024	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>2</u>	<u>2</u>	<u>0</u>	<u>0</u>
Total	0	0	0	3	0	2	0	5	3	3	0
Avg	0	0	0	<1.0	0	<1.0	0	1	<1.0	<1.0	0
A – Angle; HO – Head On; O – Object; RE – Rear End; S – Sideswipe; T – Turning PD – Property Damage; I – Injury; F – Fatal											

Table 3

RENNICK ROAD WITH EXECUTIVE DRIVE – CRASH SUMMARY

Year	Type of Crash								Severity		
	A	HO	O	RE	S	T	Other	Total	PD	I	F
2020	0	0	0	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	1	0	1	1	0	0
2022	0	0	0	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0	0	0	0
2024	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	0	0	0	0	0	1	0	1	1	0	0
Avg	0	0	0	0	0	<1.0	0	<1.0	<1.0	0	0
A – Angle; HO – Head On; O – Object; RE – Rear End; S – Sideswipe; T – Turning PD – Property Damage; I – Injury; F – Fatal											

Table 4

RENWICK ROAD WITH BORIO DRIVE – CRASH SUMMARY

Year	Type of Crash								Severity		
	A	HO	O	RE	S	T	Other	Total	PD	I	F
2020	0	0	0	0	0	1	0	1	1	0	0
2021	0	0	0	1	0	1	0	2	1	1	0
2022	0	0	0	1	0	0	0	1	0	1	0
2023	0	0	0	0	0	1	0	1	0	1	0
2024	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>
Total	0	0	1	2	0	3	0	6	3	3	0
Avg	0	0	<1.0	<1.0	0	<1.0	0	1.2	<1.0	<1.0	0
A – Angle; HO – Head On; O – Object; RE – Rear End; S – Sideswipe; T – Turning PD – Property Damage; I – Injury; F – Fatal											

Table 5

WEBER ROAD WITH MCGILVRAY DRIVE – CRASH SUMMARY

Year	Type of Crash								Severity		
	A	HO	O	RE	S	T	Other	Total	PD	I	F
2020	0	0	0	0	0	0	0	0	0	0	0
2021	0	0	1	0	0	1	0	2	2	0	0
2022	0	0	0	0	0	1	0	1	1	0	0
2023	1	0	0	0	1	2	0	4	2	3	0
2024	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>
Total	1	0	1	0	1	5	0	8	6	3	0
Avg	<1.0	0	<1.0	0	<1.0	1	0	1.6	1.2	<1.0	0
A – Angle; HO – Head On; O – Object; RE – Rear End; S – Sideswipe; T – Turning PD – Property Damage; I – Injury; F – Fatal											

3. Traffic Characteristics of the Proposed Development

To properly evaluate future traffic conditions, it was necessary to determine the traffic characteristics of the proposed development, including the directional distribution and volumes of traffic that it will generate.

Proposed Site and Development Plan

As proposed, the development will contain 260 residential units, 439 surface parking spaces and 120 enclosed parking spaces. Access to the residential development will be provided via six access drives that will connect to the internal private roads and subsequently connect to the surrounding street network through the following existing access roads:

- An existing RIRO access road that is located on the south side of Renwick Road approximately 635 feet east of Weber Road. This access road provides one inbound lane and one outbound lane with outbound movements under stop sign control.
- An existing full-movement access road located on the south side of Renwick Road approximately 930 feet west of Borio Drive. This access road provides one inbound lane and one outbound lane with outbound movements under stop sign control.
- An existing signalized full-movement access road located on the east side of Weber Road approximately 1,060 feet south of Renwick Road. This access road provides one inbound lane and two outbound lanes.

As part of the proposed plan, internal pedestrian sidewalks and high-visibility crosswalks will be provided at key intersections within the development to enhance pedestrian safety when accessing the pool, clubhouse area, and surrounding outlot commercial developments.

Additionally, it is important to note that there are two locations with concrete barricades with one located approximately 50 feet east of Ontario Street and another one located approximately 545 feet south of Renwick Road. These barricades will be removed to provide full access between the development and the internal access roads that connect to the street network.

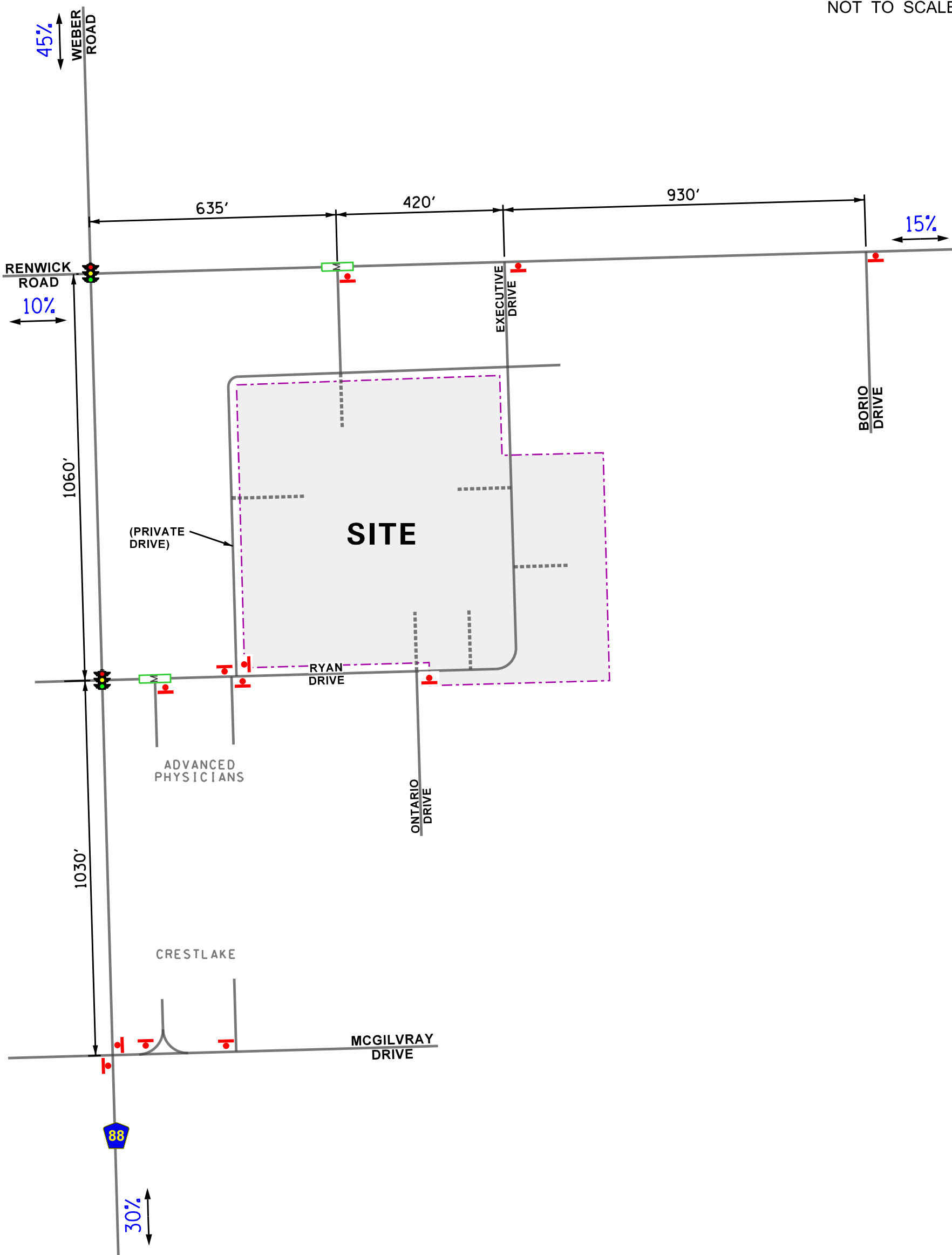
A copy of the proposed site plan and geometrics plan is included in the Appendix.

Directional Distribution

The directions from which residents of the residential development will approach and depart the site were estimated based on existing travel patterns, as determined from the traffic counts. **Figure 5** illustrates the directional distribution of the development-generated traffic.



NOT TO SCALE



LEGEND

- 00% - PERCENT DISTRIBUTION
- 00' - DISTANCE IN FEET

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DIRECTIONAL DISTRIBUTION

Peak Hour Traffic Volumes

The number of peak hour trips estimated to be generated by the proposed development was based on vehicle trip generation rates contained in *Trip Generation Manual*, 12th Edition, published by the Institute of Transportation Engineers (ITE). The “Multifamily Housing (Low-Rise)” (Land-Use Code 220) rate was used for the proposed development. **Table 6** shows the estimated vehicle trip generation for the weekday morning and weekday evening peak hours as well as daily traffic.

Table 6
SITE-GENERATED TRIP ESTIMATES

ITE Land- Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Daily Trips		
		In	Out	Total	In	Out	Total	In	Out	Total
220	Multifamily Housing - Low-Rise (260 units)	25	79	104	82	50	132	792	792	1,584

4. Projected Traffic Conditions

The total projected traffic volumes include the existing traffic volumes, increase in background traffic due to growth, and the traffic estimated to be generated by the proposed development.

Development Traffic Assignment

The estimated weekday morning and weekday evening peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). **Figure 6** illustrates the development traffic assignments.

Background (No-Build) Traffic Conditions

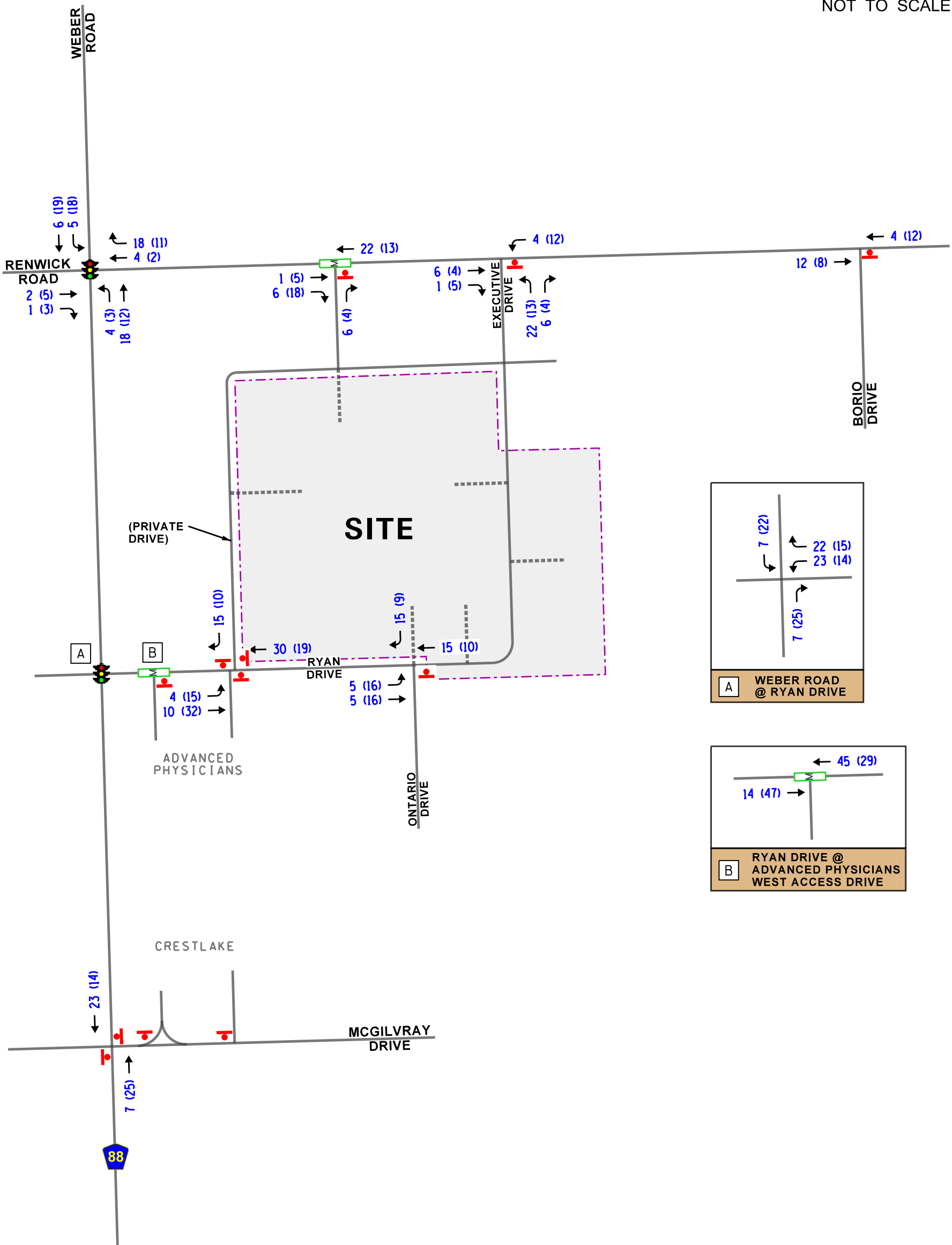
The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on 2050 Average Daily Traffic (ADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the existing traffic volumes were increased by an annually compounded growth rate of .66 percent for six years (i.e. one-year buildout plus five years) totaling approximately four percent to represent Year 2032 no-build conditions. The Year 2032 no-build traffic volumes are illustrated in **Figure 7**.

Other Area Developments

To account for the traffic to be generated by the other future developments in the area, the traffic impact study also included development of the two vacant commercial outlot parcels adjacent to the site. Vehicle trips were estimated for two outlot totaling 3.97 acres were estimated using ITE trip rates and added to the street network.

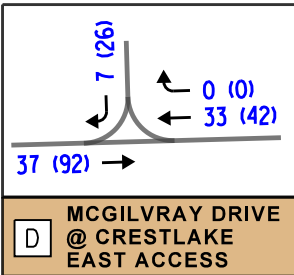
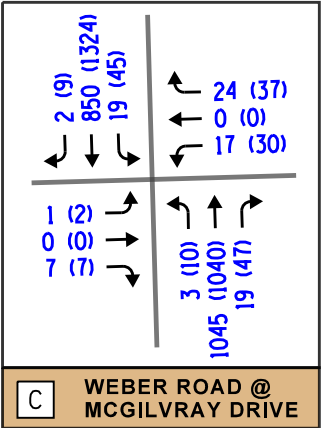
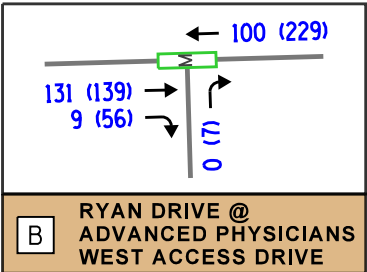
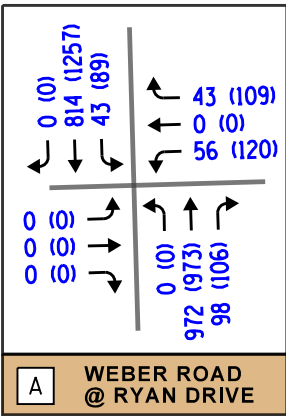
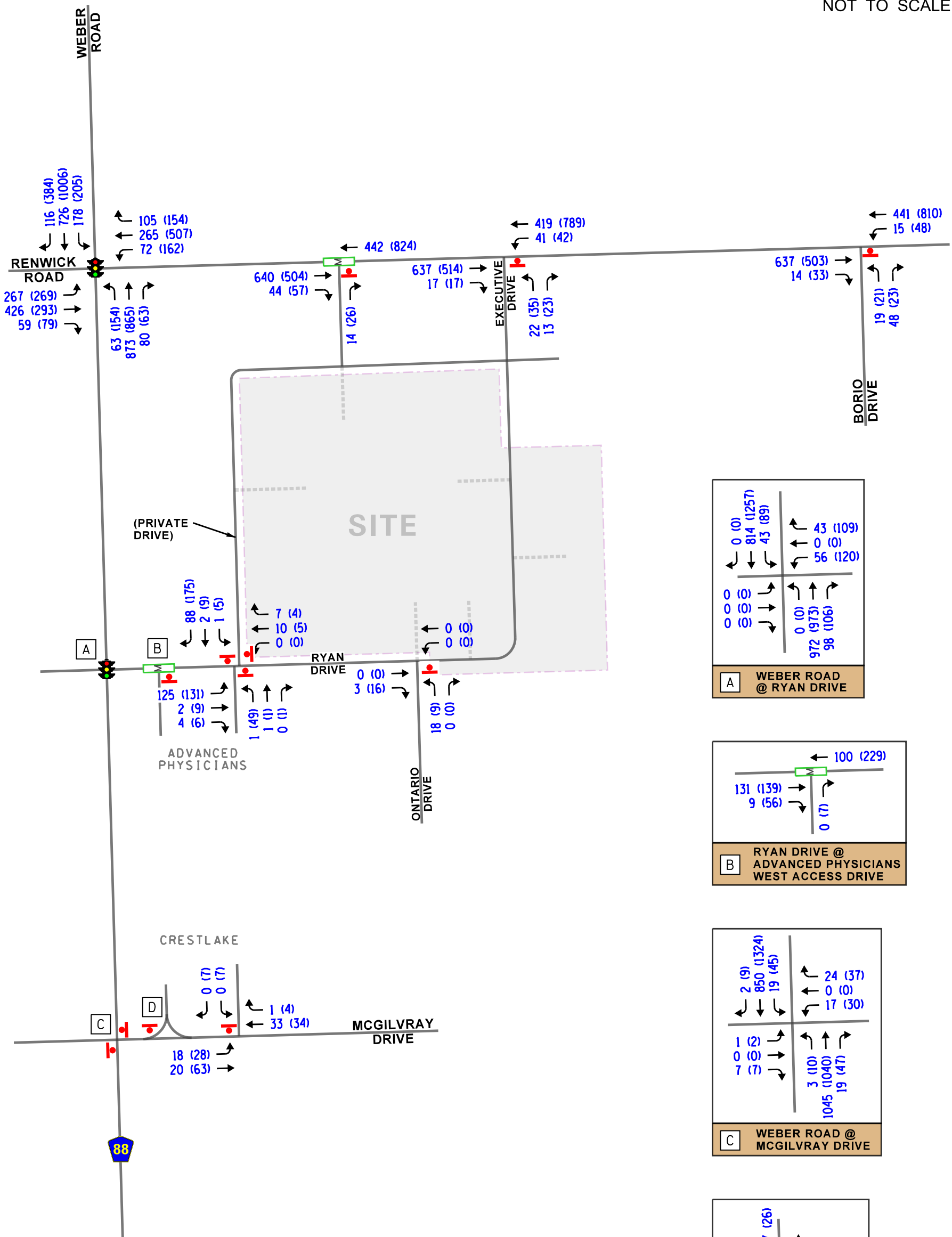
Year 2032 Total Projected Traffic Volumes

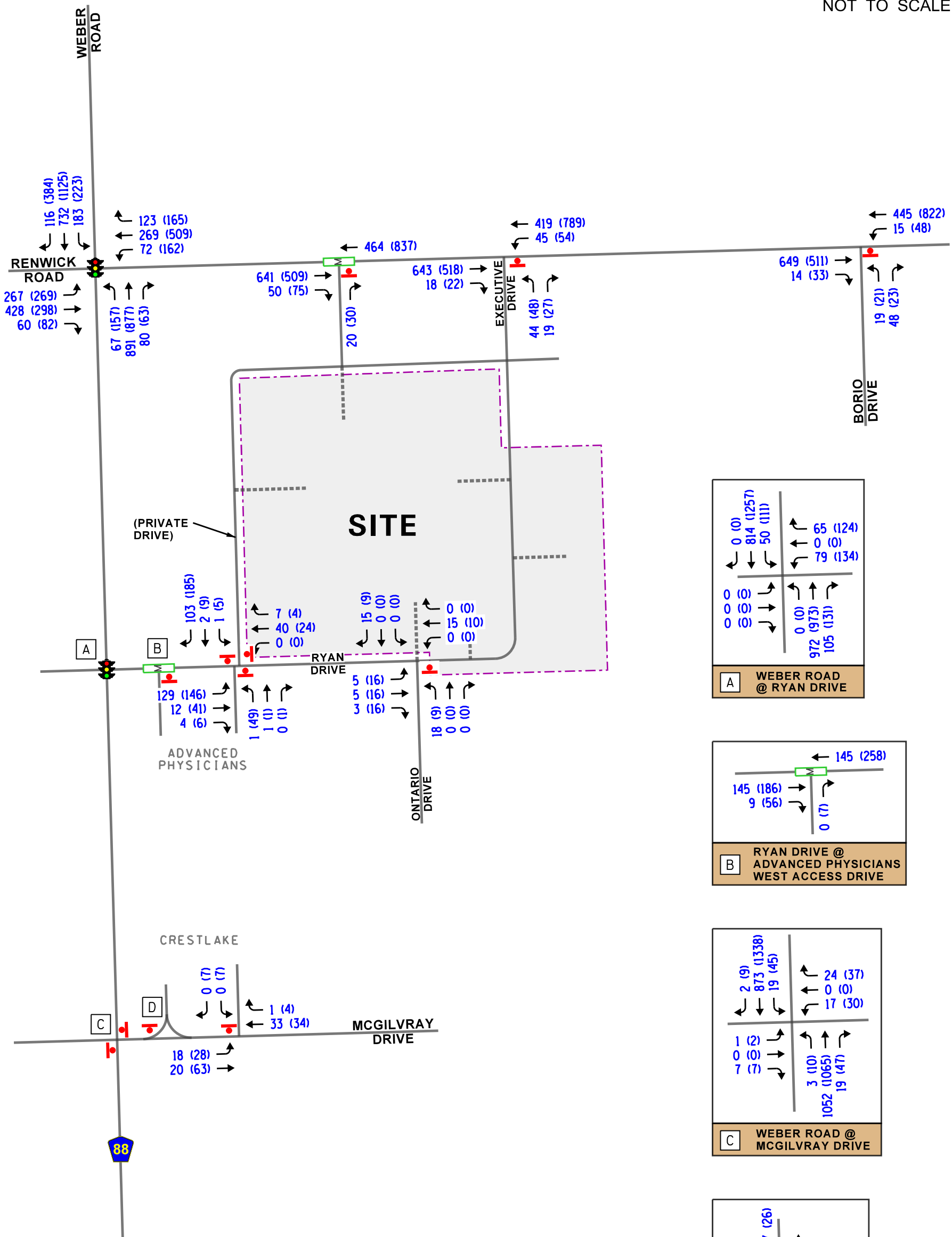
The new development-generated traffic (Figure 6) was added to the Year 2032 no-build traffic volumes (Figure 7) to determine the Year 2032 total projected traffic volumes, as illustrated in **Figure 8**.



LEGEND

- 00 - AM PEAK HOUR (7:15-8:15 AM)
- (00) - PM PEAK HOUR (4:00-5:00 PM)





5. Traffic Signal Warrant Analysis

A traffic signal warrant analysis was performed for the intersection of Weber Road with Ryan Drive based on the Federal Highway Administration's *Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD), 2009. The traffic signal requires that one or more of the nine signal warrants outlined in the *Manual on Uniform Traffic Control Devices* (MUTCD 2009) are met. However, as shown in **Figure 9**, Weber Road is classified as an SRA route and as such, SRA traffic signal warrant requirements established by the Illinois Department of Transportation (IDOT) were utilized. This criterion only takes into consideration traffic volume Warrant 1 (Eight-Hour Vehicular Volume).

Warrant 1, Eight-Hour Vehicular Volume states that the Minimum Vehicular Volume, Condition A, is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal. The Interruption of Continuous Traffic, Condition B, is intended for application at locations where Condition A is not satisfied and where the traffic volumes on a major street are so heavy that traffic on the minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.

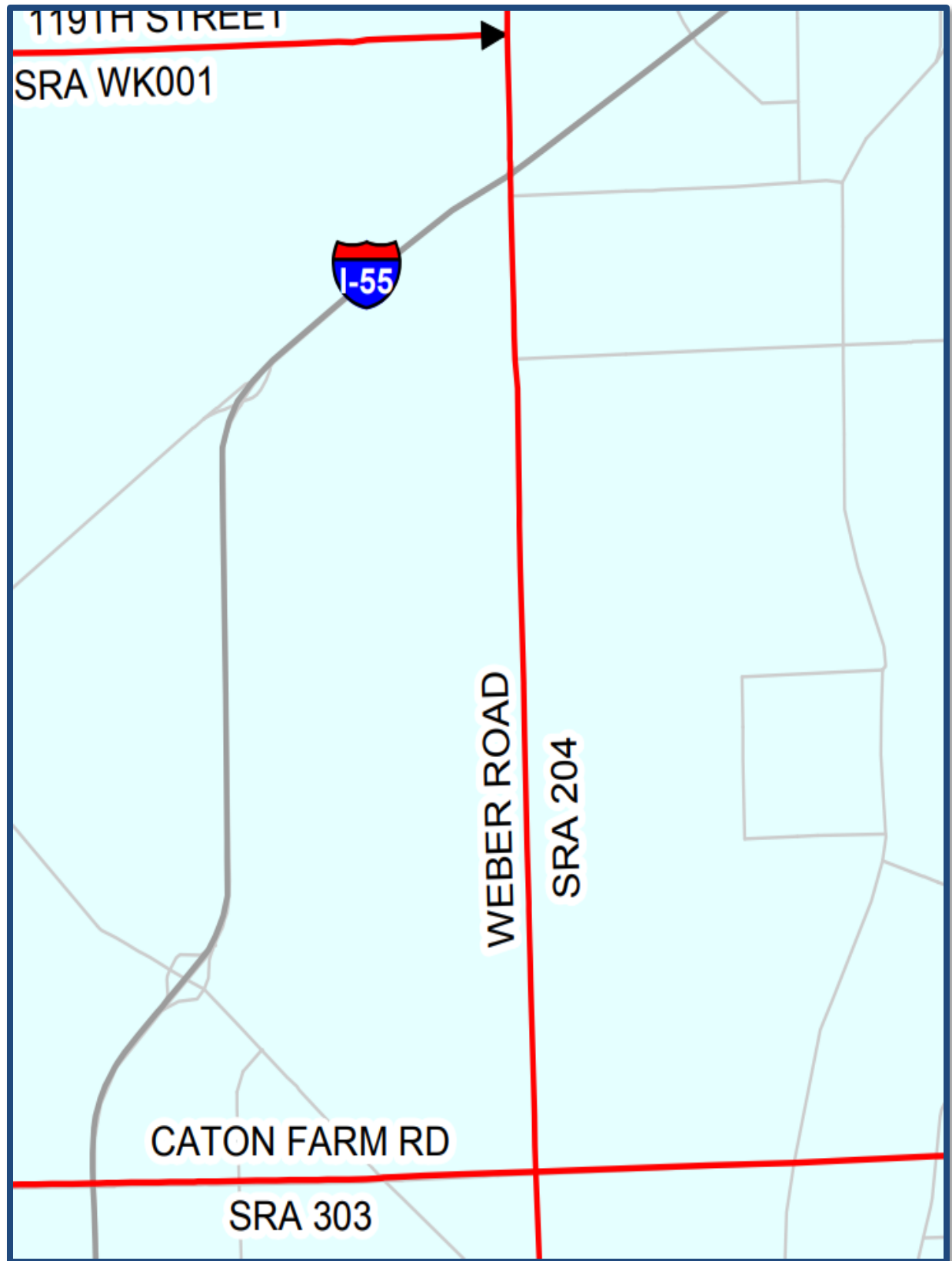
Given that Weber Road provides three lane approaches at this intersection, the required vehicles per hour on the major street is 600 (total of both approaches) and the required vehicles per hour on the minor street (one direction only) is 200 for Condition A. For Condition B, the required number of vehicles per hour on the major street is 900 (total of both approaches) and the required number of vehicles per hour on the minor street (one direction only) is 100.

However, for SRA routes, the requirements on the minor street for Condition B shall be increased from 100 vehicles per hour to 150 for a two-lane minor approach. Furthermore, based on IDOT's guidelines, the right-turn volume from the minor approach will be reduced between 70 - 75 percent.

To determine if a traffic signal will be warranted under Year 2032 total projected conditions at the intersection of Weber Road with Ryan Drive, the following was taken into consideration:

- 13-hour traffic counts conducted at the intersection of Weber Road with Ryan Drive
- Hourly traffic volumes projected to be generated by the subject development.
- The anticipated regional background growth
- Hourly traffic volumes projected to be generated by the two vacant commercial outlot parcels adjacent to the site

Table 7 summarizes the 13-hour traffic counts for the intersection of Weber Road with Ryan Drive to reflect IDOT's required right-turn reduction for total projected traffic conditions.



Strategic Regional Arterial Map

Figure 9

Table 7
 WEBER ROAD WITH RYAN DRIVE – PROJECTED
 13-HOUR TRAFFIC VOLUMES – WITH IDOT SRA CRITERIA

Time	Weber Road		Ryan Drive (Westbound)			Major Approach Total	Minor Approach Volume	Minimums Met?	
	NB Total	SB Total	L	R	Adj. Right			Condition A	Condition B
6:00 AM	914	506	16	23	6	1420	22	NO	NO
7:00 AM	1076	863	79	65	20	1939	99	NO	NO
8:00 AM	751	873	48	36	9	1624	57	NO	NO
9:00 AM	715	707	55	53	13	1422	68	NO	NO
10:00 AM	721	673	74	79	20	1394	94	NO	NO
11:00 AM	861	753	109	95	24	1614	133	NO	NO
12:00 PM	906	879	120	100	25	1785	145	NO	NO
1:00 PM	1003	1024	110	101	30	2027	140	NO	NO
2:00 PM	1030	1158	112	100	30	2188	142	NO	NO
3:00 PM	1137	1244	112	101	30	2381	142	NO	NO
4:00 PM	1103	1366	133	122	37	2469	170	NO	YES
5:00 PM	1108	1118	133	126	38	2226	171	NO	YES
6:00 PM	791	956	113	113	38	1747	141	NO	NO
Warrant 1A requires a major approach volume of 600 vehicles and a minor approach volume of 200 vehicles. Warrant 1B requires a major approach volume of 900 vehicles and a minor approach volume of 150 vehicles (increased per IDOT requirements for SRA Routes). L – Left, T – Through, R – Right, NB – Northbound, SB – Southbound									

As can be seen from Table 7, when the conservative IDOT SRA traffic signal warrant criteria is applied to the traffic volumes at the intersection of Weber Road with Ryan Drive, a traffic signal will not be warranted at the intersection, when only two hours are met under total projected conditions, whereas eight hours are required to meet the warrant. However, as can be seen from Table 8, six other hours are within approximately 10 percent (17 vehicles or less) of warranting the six additional hours needed to meet the conservatively high IDOT SRA warrant criteria.

However, when the requirements for the minor street for Condition B are not increased from 100 vehicles per hour and as can be seen from Table 7, a traffic signal will be warranted for eight hours based on Condition B as can be seen in Table 8.

It should be noted that when taking into consideration that the speed on Weber Road is 45 miles per hour and by applying the MUTCD 70 percent criteria for a non-SRA route, the minor approach volume to warrant the traffic signal is 70 vehicles. The projected traffic volumes for the eight previously identified hours are approximately double this minimum volume threshold.

Additionally, it is important to note that the projected traffic volumes include the existing bank located in the northeast quadrant of the intersection of Weber Road and Ryan Drive that currently operates as a 24-hour ATM-only facility. A redevelopment of this parcel could result in the provision of a more traffic intensive land use, pushing the projected traffic volumes over the SRA minimum thresholds which are already close to being met.

Overall, maintaining a signal at this intersection, is imperative to ensure safe/protected full access to the proposed development via Weber Road, limiting the impact of the development on the area roadway network, as well as to accommodate existing land uses, the subject development, and redevelopment opportunities for the commercial outlot parcels.

Table 8
 WEBER ROAD WITH RYAN DRIVE – PROJECTED
 13-HOUR TRAFFIC VOLUMES – WITHOUT IDOT SRA CRITERIA

Time	Weber Road		Ryan Drive (Westbound)			Major Approach Total	Highest Minor Approach Volume	Minimums Met?	
	NB Total	SB Total	L	R	Adj. Right			Condition A	Condition B
6:00 AM	914	506	16	23	6	1420	22	NO	NO
7:00 AM	1076	863	79	65	20	1939	99	NO	NO
8:00 AM	751	873	48	36	9	1624	57	NO	NO
9:00 AM	715	707	55	53	13	1422	68	NO	NO
10:00 AM	721	673	74	79	20	1394	94	NO	NO
11:00 AM	861	753	109	95	24	1614	133	NO	YES
12:00 PM	906	879	120	100	25	1785	145	NO	YES
1:00 PM	1003	1024	110	101	30	2027	140	NO	YES
2:00 PM	1030	1158	112	100	30	2188	142	NO	YES
3:00 PM	1137	1244	112	101	30	2381	142	NO	YES
4:00 PM	1103	1366	133	122	37	2469	170	NO	YES
5:00 PM	1108	1118	133	126	38	2226	171	NO	YES
6:00 PM	791	956	113	113	38	1747	141	NO	YES
Warrant 1A requires a major approach volume of 600 vehicles and a minor approach volume of 200 vehicles. Warrant 1B requires a major approach volume of 900 vehicles and a minor approach volume of 100 vehicles L – Left, T – Through, R – Right, NB – Northbound, SB – Southbound									

6. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning and weekday evening peak hours. The analysis includes conducting capacity analyses to determine how well the roadway system and access roads are projected to operate and whether any roadway improvements or modifications are required.

Traffic Analyses

Capacity analyses were performed for the included intersections in the study area for the weekday morning and weekday evening peak hours for the existing, Year 2032 no-build, and Year 2032 total projected conditions.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual* (HCM), 7th Edition and using Synchro/SimTraffic 12 analysis software. The analysis for the traffic-signal controlled intersections were accomplished using actual cycle lengths and phasings to determine the average overall vehicle delay and levels of services.

The analyses for the unsignalized intersections determine the average control delay to vehicles at an intersection. Control delay is the elapsed time from a vehicle joining the queue at a stop sign (including the time required to decelerate to a stop) until its departure from the stop sign and resumption of free-flow speed. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane characteristics.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter from A to F based on the average control delay experienced by vehicles passing through the intersection. The *Highway Capacity Manual* definitions for levels of service and the corresponding control delay for signalized intersections and unsignalized intersections are included in the Appendix of this report.

A summary of the traffic analysis results showing the level of service and delay (measured in seconds) for the intersections under the existing, 2032 no-build conditions, and Year 2032 total projected conditions are shown in **Tables 9** through **13**. Copies of the capacity analysis summary sheets are included in the Appendix. A discussion of each of the intersections follows.

Table 9

CAPACITY ANALYSIS RESULTS – RENWICK ROAD WITH WEBER ROAD – SIGNALIZED

Existing Conditions	Peak Hour	Eastbound		Westbound			Northbound		Southbound			Overall	
		L	T/R	L	T/R		L	T/R	L	T	R		
	Weekday Morning	E 56.7	D 43.2	E 60.6	D 48.8	B 12.6	E 59.3	C 26.0	E 60.9	C 21.2	A 2.1	C 33.8	
		D – 48.1		D – 42.7			C – 27.8		C – 24.9				
	Weekday Evening	E 57.1	D 38.1	E 61.1	D 47.9	B 13.3	E 62.2	C 28.5	E 63.3	C 29.5	B 12.6	D 35.7	
		D – 46.3		D – 44.5			C – 33.1		C – 29.1				
	No-Build Conditions	Weekday Morning	E 56.5	D 43.5	E 60.6	D 48.8	B 14.6	E 59.5	C 27.5	E 6..7	C 22.1	A 2.2	C 34.9
			D – 48.1		D – 42.5			C – 29.5		C – 27.1			
		Weekday Evening	E 58.1	D 38.7	E 61.2	D 47.9	B 17.0	E 64.5	C 29.6	E 67.7	C 30.4	B 13.9	D 37.0
			D – 46.8		D – 44.7			C – 34.6		C – 31.1			
Projected Conditions	Weekday Morning	E 57.2	D 43.4	E 60.6	D 48.3	B 16.7	E 59.6	C 27.7	E 64.6	C 22.3	A 2.3	D 35.0	
		D – 48.3		D – 41.9			C – 29.7		C – 27.6				
	Weekday Evening	E 58.8	D 39.1	E 61.8	D 47.9	B 17.9	E 64.8	C 29.8	E 68.8	C 30.3	B 13.9	D 37.3	
		D – 47.2		D – 44.7			C – 34.8		C – 31.6				
Letter denotes Level of Service L – Left Turn R – Right Turn Delay is measured in seconds. T – Through													

Table 10

CAPACITY ANALYSIS RESULTS – WEBER ROAD WITH RYAN DRIVE – SIGNALIZED

Existing Conditions	Peak Hour	Eastbound	Westbound		Northbound	Southbound		Overall	
		L/T/R	L	R	L/T/R	L	T/R		
	Weekday Morning	--	E 71.2	A 0.8	A – 1.7	A 0.8	A 0.7	A 1.5	
			C – 27.2			A – 0.7			
	Weekday Evening	--	E 77.3	A 6.3	A – 3.7	A 1.8	A 1.8	A 3.8	
			D – 36.0			A – 1.8			
	No-Build Conditions	Weekday Morning	--	E 79.5	A 2.8	A – 4.2	A 2.1	A 1.9	A 5.3
				D – 46.2			A – 1.9		
		Weekday Evening	--	F 86.8	B 15.6	A – 6.4	A 3.7	A 3.5	A 8.9
				D – 52.9			A – 3.5		
Projected Conditions	Weekday Morning	--	F 80.6	A 9.1	A – 5.1	A 2.6	A 2.5	A 7.0	
			D – 48.4			A – 2.5			
	Weekday Evening	--	F 84.3	B 14.5	A – 7.1	A 4.7	A 3.9	A 9.7	
			D – 50.8			A – 4.0			
Letter denotes Level of Service L – Left Turn R – Right Turn Delay is measured in seconds. T – Through									

Table 11

CAPACITY ANALYSIS RESULTS – EXISTING CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Renwick Road with N-S Access Road²				
• Northbound Approach	B	11.9	B	11.1
Renwick with Executive Drive²				
• Northbound Approach	B	12.7	B	12.8
• Westbound Left Turn	A	8.9	A	8.5
Renwick Road with Borio Drive²				
• Northbound Approach	B	14.7	C	15.7
• Westbound Left Turn	A	8.9	A	8.6
Ryan Drive with Advanced Physicians Access Drive (West)²				
• Northbound Approach	--	--	A	8.7
Ryan Drive with Advanced Physicians Access Drive (East)/N-S Private Road ¹				
• ICU	A	17.8%	A	24.7%
Ryan Drive with Ontario Street²				
• Northbound Approach	A	8.7	A	8.7
• Westbound Left Turn	--	--	--	--
Weber Road with McGilvray Drive²				
• Eastbound Approach	B	12.4	C	19.2
• Westbound Approach	C	18.1	C	24.1
• Northbound Left Turn	A	9.4	B	11.7
• Southbound Left Turn	B	10.5	B	10.8
McGilvray Drive with Crest Lake Access Drive (West)²				
• Southbound Approach	A	8.5	A	8.6
McGilvray Drive with Crest Lake Access Drive (East)²				
• Southbound Approach	--	--	A	9.1
• Eastbound Left Turn	A	7.3	A	7.3
LOS = Level of Service		1 – Intersection Capacity Utilization (ICU)		
Delay is measured in seconds.		2 – Two-way stop control		

Table 12

CAPACITY ANALYSIS RESULTS – NO-BUILD CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Renwick Road with N-S Access Road²				
• Northbound Approach	B	12.5	B	11.6
Renwick with Executive Drive²				
• Northbound Approach	B	14.1	B	14.3
• Westbound Left Turn	A	9.2	A	8.8
Renwick Road with Borio Drive²				
• Northbound Approach	C	15.5	C	16.8
• Westbound Left Turn	A	9.0	A	8.8
Ryan Drive with Advanced Physicians Access Drive (West)²				
• Northbound Approach	--	--	A	9.4
Ryan Drive with Advanced Physicians Access Drive (East)/N-S Private Road ¹				
• ICU	A	26.2%		
Ryan Drive with Ontario Street²				
• Northbound Approach	A	8.7	A	8.7
• Westbound Left Turn	--	--	--	--
Weber Road with McGilvray Drive²				
• Eastbound Approach	B	13.0	C	21.9
• Westbound Approach	C	20.7	D	29.2
• Northbound Left Turn	A	9.7	B	12.6
• Southbound Left Turn	B	11.2	B	11.5
McGilvray Drive with Crest Lake Access Drive (West)²				
• Southbound Approach	A	8.5	A	8.6
McGilvray Drive with Crest Lake Access Drive (East)²				
• Southbound Approach	--	--	A	9.1
• Eastbound Left Turn	A	7.3	A	7.3
LOS = Level of Service		1 – Intersection Capacity Utilization (ICU)		
Delay is measured in seconds.		2 – Two-way stop control		

Table 13

CAPACITY ANALYSIS RESULTS – PROJECTED CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Renwick Road with N-S Access Road²				
• Northbound Approach	B	12.6	B	11.8
Renwick with Executive Drive²				
• Northbound Approach	C	15.2	C	15.3
• Westbound Left Turn	A	9.2	A	8.9
Renwick Road with Borio Drive²				
• Northbound Approach	C	15.7	C	17.0
• Westbound Left Turn	A	9.1	A	8.8
Ryan Drive with Advanced Physicians Access Drive (West)²				
• Northbound Approach	--	--	A	9.8
Ryan Drive with Advanced Physicians Access Drive (East)/N-S Private Road ¹				
• ICU	A	27.9%	A	42.8%
Ryan Drive with Ontario Street²				
• Northbound Approach	A	9.0	A	9.2
• Southbound Approach	A	8.5	A	8.4
• Eastbound Left Turn	A	7.3	A	7.3
• Westbound Left Turn	--	--	--	--
Weber Road with McGilvray Drive²				
• Eastbound Approach	B	13.2	C	22.3
• Westbound Approach	C	20.9	D	30.3
• Northbound Left Turn	A	9.8	B	12.7
• Southbound Left Turn	B	11.2	B	11.7
McGilvray Drive with Crest Lake Access Drive (West)²				
• Southbound Approach	A	8.5	A	8.6
LOS = Level of Service		1 – Intersection Capacity Utilization (ICU)		
Delay is measured in seconds.		2 – Two-way stop control		

Table 13 (continued)

CAPACITY ANALYSIS RESULTS – PROJECTED CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
McGilvray Drive with Crest Lake Access Drive (East)²				
• Southbound Approach	--	--	A	9.1
• Eastbound Left Turn	A	7.3	A	7.3
LOS = Level of Service Delay is measured in seconds.	1 – Intersection Capacity Utilization (ICU) 2 – Two-way stop control			

Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identifies any roadway and traffic control improvements necessary to accommodate the development-generated traffic.

Renwick Road with Weber Road

The results of the capacity analysis indicate that overall, this intersection currently operates at an overall Level of Service (LOS) C during the weekday morning peak hour and LOS D during weekday evening peak hour. All approaches and critical movements currently operate at LOS E or better during the peak hours. Under Year 2032 no-build and total projected conditions this intersection is projected to operate as follows:

- Under Year 2032 no-build conditions this intersection overall, approaches and critical movements are projected to continue to operate at the same LOS as existing conditions.
- Under Year 2032 total projected conditions, this intersection is projected to operate at an overall LOS D during the weekday morning and weekday evening peak hours.
- Under Year 2032 total projected conditions, all approaches and critical movements are projected to continue to operate at the same LOS as existing and no-build conditions.
- It is important to note that traffic estimated to be generated by the proposed development only results in less than two percent increase in the traffic traversing the intersection.

As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

Weber Road with Ryan Drive

The results of the capacity analysis indicate that overall, this intersection currently operates at an overall LOS A during the weekday morning and weekday evening peak hours. All approaches and critical movements currently operate at LOS E or better during the peak hours. Under Year 2032 no-build and total projected conditions this intersection is projected to operate as follows:

- Under Year 2032 no-build and total projected conditions, this intersection is projected to continue to operate at the same overall LOS as existing conditions.
- Under Year 2032 no-build and total projected conditions, all approaches are projected to continue to operate at the same LOS as existing conditions, except for the westbound approach during the weekday morning peak hour which is projected to operate at LOS D. It is important to note that this increase in delay is partially due to the future retail background developments.

- Under Year 2032 no-build and total projected conditions, the westbound left turn movement is projected to operate at LOS F, and the westbound right turn movement is projected to operate at LOS B during the weekday evening peak hour. It is important to note that the volume to capacity (v/c) ratio for the westbound left turning movement will be less than one with a maximum 95th percentile queue length of approximately 270 feet which will extend to but not beyond the N-S private road.
- Under Year 2032 total projected conditions, the maximum 95th percentile queue length for the southbound left turn movement will be approximately 26 feet which can be accommodated by the provided storage length of 310 feet.
- It is important to note that traffic estimated to be generated by the proposed development only results in less than three percent increase in the traffic traversing the intersection.

As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements will be required.

Renwick Road with N-S Access Road

The results of the capacity analysis indicate that the northbound approach at this RIRO access road currently operates at LOS B during the weekday morning and weekday evening peak hours. Under Year 2032 no-build and total projected conditions this intersection is projected to continue to operate at the same LOS as existing conditions. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

Renwick Road with Executive Drive

The results of the capacity analysis indicate that the northbound approach currently operates at LOS B during the weekday morning and weekday evening peak hours. Furthermore, the westbound left turn movement onto Executive Drive currently operates at LOS A during both peak hours. Under Year 2032 no-build and total projected conditions the northbound approach and the westbound left turn movement are projected to continue to operate at the same LOS as existing conditions. Furthermore, the maximum 95th percentile queue for the westbound left turn movement will be one to two vehicles with a v/c ratio of less than one, which can be accommodated by the existing 280 feet of storage. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

Renwick Road with Borio Drive

The results of the capacity analysis indicate that the northbound approach currently operates at LOS B during the weekday morning peak hour and LOS C during the weekday evening peak hour. Furthermore, the westbound left turn movement onto Borio Drive currently operates at LOS A during both peak hours. Under Year 2032 no-build and total projected conditions the northbound approach is projected to operate at LOS C during both peak hour and the westbound left turn movement is projected to continue to operate at the same LOS as existing conditions. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

Ryan Drive with Advanced Physicians Access Drive (west)

The results of the capacity analysis indicate that the northbound approach at this RIRO access drive currently operates at LOS A during the weekday morning and weekday evening peak hours. Under Year 2032 no-build and total projected conditions this intersection is projected to continue to operate at the same LOS as existing conditions. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

Ryan Drive with Advanced Physicians Access Drive(east)/N-S Private Road

As this intersection is atypical with the eastbound approach uncontrolled and the southbound, northbound and westbound approaches being under stop sign control, the intersection was evaluated using the Intersection Capacity Utilization (ICU) method. The results of the capacity analysis indicate that the intersection currently operates at ICU A with minimal queues during the weekday morning and weekday evening peak hours. Under Year 2032 no-build and total projected conditions this intersection is projected to continue to operate at ICU A during the peak hours. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

Ryan Drive with Ontario Street

As mentioned previously the east leg of this intersection is blocked by concrete barricades located approximately 50 feet east of Ontario Street. Therefore, the results of the capacity analysis indicate that the northbound approach currently operates at LOS A during the weekday morning and weekday evening peak hours. Under Year 2032 no-build this intersection and without the removal of the concrete barricades the northbound approach is projected to continue to operate at the same LOS as existing conditions.

As part of the proposed plan the development will create the north leg (access drive) at this intersection and the concrete barricades will be removed to provide full access between the development and the internal access roads that connect to the street network.

Under Year 2032 total projected conditions and the removal of the concrete barricades from east leg of the intersection, the northbound and southbound approaches are projected to operate at LOS A during both peak hours. Furthermore, the westbound and eastbound left turn movements are projected to operate at LOS A during both peak hours. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

McGilvray Drive with Crest Lake Access Drive (west)

The results of the capacity analysis indicate that the southbound approach at this RIRO access drive currently operates at LOS A during the weekday morning and weekday evening peak hours. Under Year 2032 no-build and total projected conditions this intersection is projected to continue to operate at the same LOS as existing conditions. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

McGilvray Drive with Crest Lake Access Drive (east)

The results of the capacity analysis indicate that the southbound approach and the eastbound left turn movement currently operate at LOS A during the weekday morning and weekday evening peak hours. Under Year 2032 no-build and total projected conditions this intersection is projected to continue to operate at the same LOS as existing conditions. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

7. Conclusion

Based on the preceding analyses and recommendations, the following conclusions have been made:

- The results of the capacity analysis indicate that the existing roadway system will have sufficient reserve capacity to accommodate the traffic that will be generated by the proposed residential development.
- Access to the residential development will be provided via six access drives that will connect to the internal private roads and subsequently connect to the surrounding street network through the following existing access roads:
 - An existing RIRO access road that is located on the south side of Renwick Road approximately 635 feet east of Weber Road. This access road provides one inbound lane and one outbound lane with outbound movements under stop sign control.
 - An existing full-movement access road located on the south side of Renwick Road approximately 930 feet west of Borio Drive. This access road provides one inbound lane and one outbound lane with outbound movements under stop sign control.
 - An existing signalized full-movement access road located on the east side of Weber Road approximately 1,060 feet south of Renwick Road. This access road provides one inbound lane and two outbound lanes.
- While the conservative IDOT SRA criteria are not fully met, traffic volumes are close to warranting a signal and meet MUTCD Warrant 1 criteria, with projected volumes and potential future redevelopment further supporting a signal.
- Without applying the SRA criteria, the projected traffic volumes will warrant a traffic signal per Warrant 1, Condition B.
- Maintaining the traffic signal is necessary to provide safe, full-access operations for the proposed development and surrounding land uses while minimizing impacts to the roadway network.

Appendix

Traffic Count Summary Sheets

Site Plan

Level of Service Table

Capacity Analysis Summary Sheets

Traffic Count Summary Sheets



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Count Name: McGilvary Dr and Access Dr TMC
Site Code:
Start Date: 01/06/2026
Page No: 1

Turning Movement Data

Start Time	McGilvary Dr Eastbound					McGilvary Dr Westbound					Access Dr Southbound					Int. Total
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:00 AM	0	1	5	0	6	0	9	0	1	9	0	0	0	0	0	15
7:15 AM	0	0	5	0	5	0	4	0	0	4	0	0	0	0	0	9
7:30 AM	0	3	4	0	7	0	8	1	1	9	0	0	0	0	0	16
7:45 AM	0	0	4	0	4	0	10	0	0	10	0	0	0	0	0	14
Hourly Total	0	4	18	0	22	0	31	1	2	32	0	0	0	0	0	54
8:00 AM	0	4	6	0	10	0	10	0	0	10	0	0	0	0	0	20
8:15 AM	0	3	5	0	8	0	8	0	0	8	0	0	0	0	0	16
8:30 AM	0	5	4	0	9	0	8	0	0	8	0	0	1	0	1	18
8:45 AM	0	2	3	0	5	0	7	1	0	8	0	0	1	0	1	14
Hourly Total	0	14	18	0	32	0	33	1	0	34	0	0	2	0	2	68
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	13	0	13	0	10	2	0	12	0	1	1	0	2	27
4:15 PM	0	2	16	0	18	0	7	0	0	7	0	1	2	1	3	28
4:30 PM	0	2	15	0	17	0	9	2	0	11	0	2	1	0	3	31
4:45 PM	0	3	18	0	21	0	6	0	0	6	0	2	3	0	5	32
Hourly Total	0	7	62	0	69	0	32	4	0	36	0	6	7	1	13	118
5:00 PM	0	0	8	0	8	1	1	0	0	2	0	1	2	0	3	13
5:15 PM	0	1	12	0	13	0	2	0	0	2	0	1	1	0	2	17
5:30 PM	0	0	22	0	22	0	11	3	0	14	0	0	2	0	2	38
5:45 PM	0	1	15	0	16	0	10	3	0	13	0	2	1	0	3	32
Hourly Total	0	2	57	0	59	1	24	6	0	31	0	4	6	0	10	100
Grand Total	0	27	155	0	182	1	120	12	2	133	0	10	15	1	25	340
Approach %	0.0	14.8	85.2	-	-	0.8	90.2	9.0	-	-	0.0	40.0	60.0	-	-	-
Total %	0.0	7.9	45.6	-	53.5	0.3	35.3	3.5	-	39.1	0.0	2.9	4.4	-	7.4	-
Lights	0	26	149	-	175	1	115	12	-	128	0	10	14	-	24	327
% Lights	-	96.3	96.1	-	96.2	100.0	95.8	100.0	-	96.2	-	100.0	93.3	-	96.0	96.2
Buses	0	0	3	-	3	0	2	0	-	2	0	0	0	-	0	5
% Buses	-	0.0	1.9	-	1.6	0.0	1.7	0.0	-	1.5	-	0.0	0.0	-	0.0	1.5
Single-Unit Trucks	0	1	3	-	4	0	3	0	-	3	0	0	1	-	1	8
% Single-Unit Trucks	-	3.7	1.9	-	2.2	0.0	2.5	0.0	-	2.3	-	0.0	6.7	-	4.0	2.4
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	2	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-



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Count Name: McGilvery Dr and Access Dr TMC
Site Code:
Start Date: 01/06/2026
Page No: 2

Turning Movement Peak Hour Data (7:15 AM)

Start Time	McGilvery Dr Eastbound					McGilvery Dr Westbound					Access Dr Southbound					Int. Total
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:15 AM	0	0	5	0	5	0	4	0	0	4	0	0	0	0	0	9
7:30 AM	0	3	4	0	7	0	8	1	1	9	0	0	0	0	0	16
7:45 AM	0	0	4	0	4	0	10	0	0	10	0	0	0	0	0	14
8:00 AM	0	4	6	0	10	0	10	0	0	10	0	0	0	0	0	20
Total	0	7	19	0	26	0	32	1	1	33	0	0	0	0	0	59
Approach %	0.0	26.9	73.1	-	-	0.0	97.0	3.0	-	-	0.0	0.0	0.0	-	-	-
Total %	0.0	11.9	32.2	-	44.1	0.0	54.2	1.7	-	55.9	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.438	0.792	-	0.650	0.000	0.800	0.250	-	0.825	0.000	0.000	0.000	-	0.000	0.738
Lights	0	7	16	-	23	0	30	1	-	31	0	0	0	-	0	54
% Lights	-	100.0	84.2	-	88.5	-	93.8	100.0	-	93.9	-	-	-	-	-	91.5
Buses	0	0	2	-	2	0	2	0	-	2	0	0	0	-	0	4
% Buses	-	0.0	10.5	-	7.7	-	6.3	0.0	-	6.1	-	-	-	-	-	6.8
Single-Unit Trucks	0	0	1	-	1	0	0	0	-	0	0	0	0	-	0	1
% Single-Unit Trucks	-	0.0	5.3	-	3.8	-	0.0	0.0	-	0.0	-	-	-	-	-	1.7
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	-	-	-	-	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	-	-	-	-	0.0
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-



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Count Name: McGilvary Dr and Access Dr TMC
Site Code:
Start Date: 01/06/2026
Page No: 3

Turning Movement Peak Hour Data (4:00 PM)

Start Time	McGilvary Dr Eastbound					McGilvary Dr Westbound					Access Dr Southbound					Int. Total
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
4:00 PM	0	0	13	0	13	0	10	2	0	12	0	1	1	0	2	27
4:15 PM	0	2	16	0	18	0	7	0	0	7	0	1	2	1	3	28
4:30 PM	0	2	15	0	17	0	9	2	0	11	0	2	1	0	3	31
4:45 PM	0	3	18	0	21	0	6	0	0	6	0	2	3	0	5	32
Total	0	7	62	0	69	0	32	4	0	36	0	6	7	1	13	118
Approach %	0.0	10.1	89.9	-	-	0.0	88.9	11.1	-	-	0.0	46.2	53.8	-	-	-
Total %	0.0	5.9	52.5	-	58.5	0.0	27.1	3.4	-	30.5	0.0	5.1	5.9	-	11.0	-
PHF	0.000	0.583	0.861	-	0.821	0.000	0.800	0.500	-	0.750	0.000	0.750	0.583	-	0.650	0.922
Lights	0	7	60	-	67	0	31	4	-	35	0	6	6	-	12	114
% Lights	-	100.0	96.8	-	97.1	-	96.9	100.0	-	97.2	-	100.0	85.7	-	92.3	96.6
Buses	0	0	1	-	1	0	0	0	-	0	0	0	0	-	0	1
% Buses	-	0.0	1.6	-	1.4	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.8
Single-Unit Trucks	0	0	1	-	1	0	1	0	-	1	0	0	1	-	1	3
% Single-Unit Trucks	-	0.0	1.6	-	1.4	-	3.1	0.0	-	2.8	-	0.0	14.3	-	7.7	2.5
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Start Time	McGilvary Dr Eastbound					McGilvary Dr Westbound					Retail Access Dr (west) Southbound					Int. Total
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:00 AM	0	2	5	0	7	0	9	0	0	9	0	0	0	0	0	16
7:15 AM	0	1	6	0	7	0	4	0	0	4	0	0	0	0	0	11
7:30 AM	0	3	6	0	9	0	9	0	0	9	0	0	2	0	2	20
7:45 AM	0	5	4	0	9	0	9	0	0	9	0	0	2	0	2	20
Hourly Total	0	11	21	0	32	0	31	0	0	31	0	0	4	0	4	67
8:00 AM	0	1	9	0	10	1	9	0	0	10	0	0	3	0	3	23
8:15 AM	0	2	10	0	12	0	9	0	0	9	0	0	0	0	0	21
8:30 AM	0	0	7	0	7	0	8	0	0	8	0	0	1	0	1	16
8:45 AM	0	4	5	0	9	0	8	0	0	8	0	0	7	0	7	24
Hourly Total	0	7	31	0	38	1	34	0	0	35	0	0	11	0	11	84
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	5	12	0	17	0	12	0	0	12	0	1	7	0	8	37
4:15 PM	0	6	16	0	22	0	8	0	0	8	0	0	3	0	3	33
4:30 PM	0	2	18	0	20	0	10	0	0	10	0	0	8	0	8	38
4:45 PM	0	7	18	0	25	0	10	0	0	10	0	0	7	0	7	42
Hourly Total	0	20	64	0	84	0	40	0	0	40	0	1	25	0	26	150
5:00 PM	0	3	10	0	13	0	2	0	0	2	0	0	8	0	8	23
5:15 PM	0	6	11	0	17	0	3	0	0	3	0	0	3	0	3	23
5:30 PM	0	5	23	0	28	0	13	1	0	14	0	0	5	0	5	47
5:45 PM	0	4	14	1	18	0	11	0	0	11	0	1	5	0	6	35
Hourly Total	0	18	58	1	76	0	29	1	0	30	0	1	21	0	22	128
Grand Total	0	56	174	1	230	1	134	1	0	136	0	2	61	0	63	429
Approach %	0.0	24.3	75.7	-	-	0.7	98.5	0.7	-	-	0.0	3.2	96.8	-	-	-
Total %	0.0	13.1	40.6	-	53.6	0.2	31.2	0.2	-	31.7	0.0	0.5	14.2	-	14.7	-
Lights	0	55	167	-	222	1	128	1	-	130	0	2	60	-	62	414
% Lights	-	98.2	96.0	-	96.5	100.0	95.5	100.0	-	95.6	-	100.0	98.4	-	98.4	96.5
Buses	0	0	3	-	3	0	2	0	-	2	0	0	0	-	0	5
% Buses	-	0.0	1.7	-	1.3	0.0	1.5	0.0	-	1.5	-	0.0	0.0	-	0.0	1.2
Single-Unit Trucks	0	1	4	-	5	0	4	0	-	4	0	0	1	-	1	10
% Single-Unit Trucks	-	1.8	2.3	-	2.2	0.0	3.0	0.0	-	2.9	-	0.0	1.6	-	1.6	2.3
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	0.0									

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Start Time	Renwick Rd Eastbound					Renwick Rd Westbound					Retail Access Drive Northbound					Int. Total
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:00 AM	0	127	0	0	127	0	0	71	0	71	0	0	1	0	1	199
7:15 AM	0	152	0	0	152	0	0	93	0	93	0	0	0	0	0	245
7:30 AM	0	178	0	0	178	0	0	77	0	77	0	0	3	0	3	258
7:45 AM	0	135	0	0	135	0	0	102	0	102	0	0	0	0	0	237
Hourly Total	0	592	0	0	592	0	0	343	0	343	0	0	4	0	4	939
8:00 AM	0	133	1	0	134	0	0	101	0	101	0	0	1	0	1	236
8:15 AM	0	123	0	0	123	0	0	94	0	94	0	0	0	0	0	217
8:30 AM	0	99	0	0	99	0	0	91	0	91	0	0	0	0	0	190
8:45 AM	0	97	1	0	98	0	0	101	0	101	0	0	1	0	1	200
Hourly Total	0	452	2	0	454	0	0	387	0	387	0	0	2	0	2	843
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	136	3	0	139	0	0	169	0	169	0	0	1	0	1	309
4:15 PM	0	101	3	0	104	0	0	170	0	170	0	0	1	0	1	275
4:30 PM	0	101	4	0	105	0	0	197	0	197	0	0	5	0	5	307
4:45 PM	0	87	4	0	91	0	0	162	0	162	0	0	2	0	2	255
Hourly Total	0	425	14	0	439	0	0	698	0	698	0	0	9	0	9	1146
5:00 PM	0	90	5	0	95	0	0	155	0	155	0	0	4	0	4	254
5:15 PM	0	101	3	0	104	0	0	177	0	177	0	0	2	0	2	283
5:30 PM	0	110	3	0	113	0	0	155	0	155	0	0	3	0	3	271
5:45 PM	0	83	5	0	88	0	0	150	0	150	0	0	1	0	1	239
Hourly Total	0	384	16	0	400	0	0	637	0	637	0	0	10	0	10	1047
Grand Total	0	1853	32	0	1885	0	0	2065	0	2065	0	0	25	0	25	3975
Approach %	0.0	98.3	1.7	-	-	0.0	0.0	100.0	-	-	0.0	0.0	100.0	-	-	-
Total %	0.0	46.6	0.8	-	47.4	0.0	0.0	51.9	-	51.9	0.0	0.0	0.6	-	0.6	-
Lights	0	1709	31	-	1740	0	0	1923	-	1923	0	0	23	-	23	3686
% Lights	-	92.2	96.9	-	92.3	-	-	93.1	-	93.1	-	-	92.0	-	92.0	92.7
Buses	0	22	0	-	22	0	0	10	-	10	0	0	1	-	1	33
% Buses	-	1.2	0.0	-	1.2	-	-	0.5	-	0.5	-	-	4.0	-	4.0	0.8
Single-Unit Trucks	0	44	1	-	45	0	0	39	-	39	0	0	1	-	1	85
% Single-Unit Trucks	-	2.4	3.1	-	2.4	-	-	1.9	-	1.9	-	-	4.0	-	4.0	2.1
Articulated Trucks	0	78	0	-	78	0	0	93	-	93	0	0	0	-	0	171
% Articulated Trucks	-	4.2	0.0	-	4.1	-	-	4.5	-	4.5	-	-	0.0	-	0.0	4.3
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-												

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Count Name: Renwick Rd and Borio Dr TMC
Site Code:
Start Date: 01/06/2026
Page No: 1

Turning Movement Data

Start Time	Renwick Rd Eastbound					Renwick Rd Westbound					Borio Dr Northbound					Int. Total
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:00 AM	0	127	2	0	129	0	3	71	0	74	0	6	18	0	24	227
7:15 AM	0	146	5	0	151	0	3	86	0	89	0	5	9	0	14	254
7:30 AM	0	184	1	0	185	0	5	91	0	96	0	2	10	0	12	293
7:45 AM	0	148	2	0	150	0	1	107	0	108	0	4	16	0	20	278
Hourly Total	0	605	10	0	615	0	12	355	0	367	0	17	53	0	70	1052
8:00 AM	0	121	5	0	126	0	5	113	0	118	0	7	11	0	18	262
8:15 AM	0	127	1	0	128	0	2	95	0	97	0	9	11	0	20	245
8:30 AM	0	102	0	0	102	0	0	98	0	98	0	8	5	0	13	213
8:45 AM	0	93	5	0	98	0	3	111	0	114	0	7	1	0	8	220
Hourly Total	0	443	11	0	454	0	10	417	0	427	0	31	28	0	59	940
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	120	8	0	128	0	11	176	0	187	0	6	2	0	8	323
4:15 PM	0	102	7	0	109	0	14	174	0	188	0	2	4	0	6	303
4:30 PM	0	103	8	0	111	0	9	196	0	205	0	6	10	0	16	332
4:45 PM	0	76	9	0	85	0	12	168	0	180	0	6	6	0	12	277
Hourly Total	0	401	32	0	433	0	46	714	0	760	0	20	22	0	42	1235
5:00 PM	0	106	8	0	114	0	17	165	0	182	0	9	6	0	15	311
5:15 PM	0	82	9	0	91	0	13	188	0	201	0	7	5	0	12	304
5:30 PM	0	124	9	0	133	0	9	166	0	175	0	6	3	1	9	317
5:45 PM	0	96	3	0	99	0	8	155	0	163	0	4	3	0	7	269
Hourly Total	0	408	29	0	437	0	47	674	0	721	0	26	17	1	43	1201
Grand Total	0	1857	82	0	1939	0	115	2160	0	2275	0	94	120	1	214	4428
Approach %	0.0	95.8	4.2	-	-	0.0	5.1	94.9	-	-	0.0	43.9	56.1	-	-	-
Total %	0.0	41.9	1.9	-	43.8	0.0	2.6	48.8	-	51.4	0.0	2.1	2.7	-	4.8	-
Lights	0	1705	81	-	1786	0	114	1997	-	2111	0	93	116	-	209	4106
% Lights	-	91.8	98.8	-	92.1	-	99.1	92.5	-	92.8	-	98.9	96.7	-	97.7	92.7
Buses	0	21	1	-	22	0	0	16	-	16	0	0	3	-	3	41
% Buses	-	1.1	1.2	-	1.1	-	0.0	0.7	-	0.7	-	0.0	2.5	-	1.4	0.9
Single-Unit Trucks	0	54	0	-	54	0	1	46	-	47	0	1	0	-	1	102
% Single-Unit Trucks	-	2.9	0.0	-	2.8	-	0.9	2.1	-	2.1	-	1.1	0.0	-	0.5	2.3
Articulated Trucks	0	77	0	-	77	0	0	101	-	101	0	0	0	-	0	178
% Articulated Trucks	-	4.1	0.0	-	4.0	-	0.0	4.7	-	4.4	-	0.0	0.0	-	0.0	4.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	1	-	1	1
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.8	-	0.5	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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Start Time	Renwick Rd Eastbound					Renwick Rd Westbound					Executive Dr Northbound					Int. Total
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:00 AM	0	105	1	0	106	0	1	75	0	76	0	0	1	0	1	183
7:15 AM	0	106	2	0	108	0	3	93	0	96	0	1	1	0	2	206
7:30 AM	0	157	0	0	157	0	3	106	0	109	0	1	2	0	3	269
7:45 AM	1	144	4	0	149	0	5	102	0	107	0	4	3	0	7	263
Hourly Total	1	512	7	0	520	0	12	376	0	388	0	6	7	0	13	921
8:00 AM	0	142	10	0	152	0	2	102	0	104	0	4	3	0	7	263
8:15 AM	0	136	3	0	139	0	4	83	0	87	0	3	3	0	6	232
8:30 AM	0	111	5	0	116	0	1	89	0	90	0	3	2	0	5	211
8:45 AM	2	131	6	0	139	0	4	102	0	106	0	4	1	0	5	250
Hourly Total	2	520	24	0	546	0	11	376	0	387	0	14	9	0	23	956
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	112	4	0	116	0	2	181	0	183	0	4	2	0	6	305
4:15 PM	1	114	2	0	117	0	3	192	0	195	0	2	4	0	6	318
4:30 PM	1	130	5	0	136	0	3	211	0	214	0	4	4	0	8	358
4:45 PM	0	122	5	0	127	0	7	175	0	182	0	7	3	0	10	319
Hourly Total	2	478	16	0	496	0	15	759	0	774	0	17	13	0	30	1300
5:00 PM	0	119	2	0	121	0	5	178	0	183	0	11	2	0	13	317
5:15 PM	0	103	2	0	105	0	5	176	0	181	0	6	2	0	8	294
5:30 PM	0	131	0	0	131	0	2	150	0	152	0	1	1	0	2	285
5:45 PM	0	96	2	0	98	0	5	173	0	178	0	5	1	0	6	282
Hourly Total	0	449	6	0	455	0	17	677	0	694	0	23	6	0	29	1178
Grand Total	5	1959	53	0	2017	0	55	2188	0	2243	0	60	35	0	95	4355
Approach %	0.2	97.1	2.6	-	-	0.0	2.5	97.5	-	-	0.0	63.2	36.8	-	-	-
Total %	0.1	45.0	1.2	-	46.3	0.0	1.3	50.2	-	51.5	0.0	1.4	0.8	-	2.2	-
Lights	5	1829	53	-	1887	0	55	2037	-	2092	0	60	34	-	94	4073
% Lights	100.0	93.4	100.0	-	93.6	-	100.0	93.1	-	93.3	-	100.0	97.1	-	98.9	93.5
Buses	0	24	0	-	24	0	0	18	-	18	0	0	1	-	1	43
% Buses	0.0	1.2	0.0	-	1.2	-	0.0	0.8	-	0.8	-	0.0	2.9	-	1.1	1.0
Single-Unit Trucks	0	33	0	-	33	0	0	35	-	35	0	0	0	-	0	68
% Single-Unit Trucks	0.0	1.7	0.0	-	1.6	-	0.0	1.6	-	1.6	-	0.0	0.0	-	0.0	1.6
Articulated Trucks	0	73	0	-	73	0	0	98	-	98	0	0	0	-	0	171
% Articulated Trucks	0.0	3.7	0.0	-	3.6	-	0.0	4.5	-	4.4	-	0.0	0.0	-	0.0	3.9
Bicycles on Road	0	0														

[illegible]

[illegible]



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 mmendoza@kloainc.com

Count Name: Renwick Rd and Weber Rd TMC
Site Code:
Start Date: 01/06/2026
Page No: 1

Turning Movement Data

Start Time	Renwick Rd Eastbound						Renwick Rd Westbound						Weber Rd Northbound						Weber Rd Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	1	60	87	6	0	154	0	17	42	15	0	74	0	5	183	18	0	206	0	23	113	26	0	162	596
7:15 AM	0	67	98	12	0	177	0	15	55	18	0	88	0	10	229	12	0	251	0	40	153	27	0	220	736
7:30 AM	0	77	117	6	0	200	1	20	52	16	0	89	0	15	221	20	0	256	0	43	160	21	0	224	769
7:45 AM	0	68	94	22	0	184	0	18	70	26	0	114	1	16	219	23	0	259	0	30	173	29	0	232	789
Hourly Total	1	272	396	46	0	715	1	70	219	75	0	365	1	46	852	73	0	972	0	136	599	103	0	838	2890
8:00 AM	0	45	68	10	0	123	0	16	61	32	0	109	0	11	146	22	0	179	0	27	170	35	0	232	643
8:15 AM	0	47	90	9	0	146	0	20	52	32	0	104	1	12	116	8	0	137	0	31	183	19	0	233	620
8:30 AM	0	44	74	13	0	131	0	22	54	26	0	102	1	17	123	11	0	152	0	15	177	41	0	233	618
8:45 AM	0	36	53	11	0	100	0	13	67	29	0	109	0	17	122	16	0	155	0	20	168	42	0	230	594
Hourly Total	0	172	285	43	0	500	0	71	234	119	0	424	2	57	507	57	0	623	0	93	698	137	0	928	2475
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	69	94	17	0	180	0	36	117	32	0	185	1	24	182	14	0	221	0	34	230	92	0	356	942
4:15 PM	1	63	53	16	0	133	1	25	120	34	0	180	0	25	184	16	0	225	0	36	268	105	0	409	947
4:30 PM	0	67	48	13	0	128	1	50	113	31	0	195	3	42	189	12	0	246	0	46	250	89	0	385	954
4:45 PM	2	60	48	22	0	132	0	37	108	32	0	177	0	33	179	12	0	224	0	32	260	83	0	375	908
Hourly Total	3	259	243	68	0	573	2	148	458	129	0	737	4	124	734	54	0	916	0	148	1008	369	0	1525	3751
5:00 PM	1	50	51	11	0	113	0	21	103	41	0	165	0	29	202	9	0	240	0	32	254	88	0	374	892
5:15 PM	0	55	45	11	0	111	1	32	119	37	0	189	0	13	224	22	0	259	0	34	223	105	0	362	921
5:30 PM	1	58	65	10	0	134	0	22	114	23	0	159	0	23	183	16	0	222	0	42	229	83	0	354	869
5:45 PM	3	41	53	11	0	108	0	26	87	34	0	147	1	21	200	23	0	245	0	24	213	61	0	298	798
Hourly Total	5	204	214	43	0	466	1	101	423	135	0	660	1	86	809	70	0	966	0	132	919	337	0	1388	3480
Grand Total	9	907	1138	200	0	2254	4	390	1334	458	0	2186	8	313	2902	254	0	3477	0	509	3224	946	0	4679	12596
Approach %	0.4	40.2	50.5	8.9	-	-	0.2	17.8	61.0	21.0	-	-	0.2	9.0	83.5	7.3	-	-	0.0	10.9	68.9	20.2	-	-	-
Total %	0.1	7.2	9.0	1.6	-	17.9	0.0	3.1	10.6	3.6	-	17.4	0.1	2.5	23.0	2.0	-	27.6	0.0	4.0	25.6	7.5	-	37.1	-
Lights	9	890	1076	184	-	2159	4	320	1282	416	-	2022	8	299	2765	200	-	3272	0	478	3069	924	-	4471	11924
% Lights	100.0	98.1	94.6	92.0	-	95.8	100.0	82.1	96.1	90.8	-	92.5	100.0	95.5	95.3	78.7	-	94.1	-	93.9	95.2	97.7	-	95.6	94.7
Buses	0	1	10	8	-	19	0	4	8	5	-	17	0	3	8	3	-	14	0	7	40	4	-	51	101
% Buses	0.0	0.1	0.9	4.0	-	0.8	0.0	1.0	0.6	1.1	-	0.8	0.0	1.0	0.3	1.2	-	0.4	-	1.4	1.2	0.4	-	1.1	0.8
Single-Unit Trucks	0	11	20	3	-	34	0	17	15	12	-	44	0	7	59	17	-	83	0	10	46	11	-	67	228
% Single-Unit Trucks	0.0	1.2	1.8	1.5	-	1.5	0.0	4.4	1.1	2.6	-	2.0	0.0	2.2	2.0	6.7	-	2.4	-	2.0	1.4	1.2	-	1.4	1.8
Articulated Trucks	0	5	32	5	-	42	0	49	29	25	-	103	0	4	70	34	-	108	0	14	69	7	-	90	343
% Articulated Trucks	0.0	0.6	2.8	2.5	-	1.9	0.0	12.6	2.2	5.5	-	4.7	0.0	1.3	2.4	13.4	-	3.1	-	2.8	2.1	0.7	-	1.9	2.7
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0

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Start Time	Renwick Rd Eastbound						Renwick Rd Westbound						Weber Rd Northbound						Weber Rd Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:00 PM	0	69	94	17	0	180	0	36	117	32	0	185	1	24	182	14	0	221	0	34	230	92	0	356	942
4:15 PM	1	63	53	16	0	133	1	25	120	34	0	180	0	25	184	16	0	225	0	36	268	105	0	409	947
4:30 PM	0	67	48	13	0	128	1	50	113	31	0	195	3	42	189	12	0	246	0	46	250	89	0	385	954
4:45 PM	2	60	48	22	0	132	0	37	108	32	0	177	0	33	179	12	0	224	0	32	260	83	0	375	908
Total	3	259	243	68	0	573	2	148	458	129	0	737	4	124	734	54	0	916	0	148	1008	369	0	1525	3751
Approach %	0.5	45.2	42.4	11.9	-	-	0.3	20.1	62.1	17.5	-	-	0.4	13.5	80.1	5.9	-	-	0.0	9.7	66.1	24.2	-	-	-
Total %	0.1	6.9	6.5	1.8	-	15.3	0.1	3.9	12.2	3.4	-	19.6	0.1	3.3	19.6	1.4	-	24.4	0.0	3.9	26.9	9.8	-	40.7	-
PHF	0.375	0.938	0.646	0.773	-	0.796	0.500	0.740	0.954	0.949	-	0.945	0.333	0.738	0.971	0.844	-	0.931	0.000	0.804	0.940	0.879	-	0.932	0.983
Lights	3	254	227	58	-	542	2	124	450	123	-	699	4	119	711	39	-	873	0	143	949	364	-	1456	3570
% Lights	100.0	98.1	93.4	85.3	-	94.6	100.0	83.8	98.3	95.3	-	94.8	100.0	96.0	96.9	72.2	-	95.3	-	96.6	94.1	98.6	-	95.5	95.2
Buses	0	0	2	8	-	10	0	2	1	0	-	3	0	0	2	3	-	5	0	0	29	1	-	30	48
% Buses	0.0	0.0	0.8	11.8	-	1.7	0.0	1.4	0.2	0.0	-	0.4	0.0	0.0	0.3	5.6	-	0.5	-	0.0	2.9	0.3	-	2.0	1.3
Single-Unit Trucks	0	3	5	0	-	8	0	5	0	3	-	8	0	4	11	5	-	20	0	1	7	1	-	9	45
% Single-Unit Trucks	0.0	1.2	2.1	0.0	-	1.4	0.0	3.4	0.0	2.3	-	1.1	0.0	3.2	1.5	9.3	-	2.2	-	0.7	0.7	0.3	-	0.6	1.2
Articulated Trucks	0	2	9	2	-	13	0	17	7	3	-	27	0	1	10	7	-	18	0	4	23	3	-	30	88
% Articulated Trucks	0.0	0.8	3.7	2.9	-	2.3	0.0	11.5	1.5	2.3	-	3.7	0.0	0.8	1.4	13.0	-	2.0	-	2.7	2.3	0.8	-	2.0	2.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-</											

Start Time	Ryan Dr Westbound					Weber Rd Northbound					Weber Rd Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	
7:00 AM	0	0	1	0	1	0	191	0	0	191	0	0	143	0	143	335
7:15 AM	0	0	2	0	2	0	269	1	0	270	0	5	181	0	186	458
7:30 AM	0	1	3	0	4	0	230	3	0	233	0	3	188	0	191	428
7:45 AM	0	2	3	0	5	0	228	8	0	236	0	3	208	0	211	452
Hourly Total	0	3	9	0	12	0	918	12	0	930	0	11	720	0	731	1673
8:00 AM	0	3	1	0	4	0	187	4	0	191	1	2	194	0	197	392
8:15 AM	0	4	2	0	6	0	153	3	0	156	0	3	208	0	211	373
8:30 AM	0	2	3	0	5	0	160	5	0	165	0	5	208	0	213	383
8:45 AM	0	5	3	0	8	0	169	2	0	171	1	10	186	0	197	376
Hourly Total	0	14	9	0	23	0	669	14	0	683	2	20	796	0	818	1524
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	7	15	0	22	0	200	6	0	206	0	9	298	0	307	535
4:15 PM	0	8	9	0	17	0	232	4	0	236	1	12	292	0	305	558
4:30 PM	0	9	15	0	24	0	272	3	0	275	0	16	312	0	328	627
4:45 PM	0	7	10	0	17	0	232	10	0	242	1	20	307	0	328	587
Hourly Total	0	31	49	0	80	0	936	23	0	959	2	57	1209	0	1268	2307
5:00 PM	0	17	16	0	33	0	242	9	0	251	0	8	264	0	272	556
5:15 PM	0	8	11	0	19	0	236	8	0	244	0	10	249	0	259	522
5:30 PM	0	4	8	0	12	0	222	4	0	226	0	13	255	0	268	506
5:45 PM	0	2	14	0	16	0	226	13	0	239	0	14	209	0	223	478
Hourly Total	0	31	49	0	80	0	926	34	0	960	0	45	977	0	1022	2062
Grand Total	0	79	116	0	195	0	3449	83	0	3532	4	133	3702	0	3839	7566
Approach %	0.0	40.5	59.5	-	-	0.0	97.7	2.3	-	-	0.1	3.5	96.4	-	-	-
Total %	0.0	1.0	1.5	-	2.6	0.0	45.6	1.1	-	46.7	0.1	1.8	48.9	-	50.7	-
Lights	0	79	115	-	194	0	3228	83	-	3311	4	132	3453	-	3589	7094
% Lights	-	100.0	99.1	-	99.5	-	93.6	100.0	-	93.7	100.0	99.2	93.3	-	93.5	93.8
Buses	0	0	0	-	0	0	14	0	-	14	0	0	52	-	52	66
% Buses	-	0.0	0.0	-	0.0	-	0.4	0.0	-	0.4	0.0	0.0	1.4	-	1.4	0.9
Single-Unit Trucks	0	0	1	-	1	0	99	0	-	99	0	0	75	-	75	175
% Single-Unit Trucks	-	0.0	0.9	-	0.5	-	2.9	0.0	-	2.8	0.0	0.0	2.0	-	2.0	2.3

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Start Time	Ryan dr Eastbound					Ryan dr Westbound					Ontario St Northbound					Int. Total
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
7:15 AM	0	0	1	0	1	0	0	0	0	0	0	2	0	0	2	3
7:30 AM	0	0	1	0	1	0	0	0	0	0	0	8	0	0	8	9
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	6
Hourly Total	0	0	2	0	2	0	0	0	0	0	0	18	0	0	18	20
8:00 AM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
8:45 AM	0	0	2	0	2	0	0	0	0	0	0	5	0	0	5	7
Hourly Total	0	0	3	0	3	0	0	0	0	0	0	12	0	0	12	15
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	5	0	5	0	0	0	0	0	0	2	0	0	2	7
4:15 PM	0	0	4	0	4	0	0	0	0	0	0	2	0	0	2	6
4:30 PM	0	0	6	0	6	0	0	0	0	0	0	2	0	0	2	8
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
Hourly Total	0	0	15	0	15	0	0	0	0	0	0	9	0	0	9	24
5:00 PM	0	0	4	0	4	0	0	0	0	0	0	7	0	0	7	11
5:15 PM	0	0	1	0	1	0	0	0	0	0	0	2	0	0	2	3
5:30 PM	0	0	6	0	6	0	0	0	0	0	0	2	0	0	2	8
5:45 PM	0	0	8	0	8	0	0	0	0	0	0	3	0	0	3	11
Hourly Total	0	0	19	0	19	0	0	0	0	0	0	14	0	0	14	33
Grand Total	0	0	39	0	39	0	0	0	0	0	0	53	0	0	53	92
Approach %	0.0	0.0	100.0	-	-	0.0	0.0	0.0	-	-	0.0	100.0	0.0	-	-	-
Total %	0.0	0.0	42.4	-	42.4	0.0	0.0	0.0	-	0.0	0.0	57.6	0.0	-	57.6	-
Lights	0	0	39	-	39	0	0	0	-	0	0	51	0	-	51	90
% Lights	-	-	100.0	-	100.0	-	-	-	-	-	-	96.2	-	-	96.2	97.8
Buses	0	0	0	-	0	0	0	0	-	0	0	1	0	-	1	1
% Buses	-	-	0.0	-	0.0	-	-	-	-	-	-	1.9	-	-	1.9	1.1
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	1	0	-	1	1
% Single-Unit Trucks	-	-	0.0	-	0.0	-	-	-	-	-	-	1.9	-	-	1.9	1.1
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	-	0.0	-	0.0	-	-	-	-	-	-	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0

[illegible]

[illegible]



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

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Count Name: Ryan Rd and Retail Access Dr
(east) TMC
Site Code:
Start Date: 01/06/2026
Page No: 1

Turning Movement Data

Start Time	Ryan Rd Eastbound						Ryan Rd Westbound						Retail Access Rd (east) Northbound						Access Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	2	1	1	0	4	0	0	1	1	0	2	0	1	0	0	0	1	0	0	0	0	0	0	7
7:30 AM	0	2	1	1	0	4	0	0	5	3	0	8	0	0	0	0	1	0	0	0	0	0	0	0	12
7:45 AM	0	6	0	2	0	8	0	0	3	3	0	6	0	0	0	0	1	0	0	0	2	2	0	4	18
Hourly Total	0	10	2	4	0	16	0	0	9	9	0	18	0	1	0	0	2	1	0	0	2	2	0	4	39
8:00 AM	0	4	0	0	0	4	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	2	0	3	9
8:15 AM	0	3	0	2	0	5	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	4	0	4	12
8:30 AM	1	5	0	2	0	8	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2	2	0	4	14
8:45 AM	0	2	1	4	0	7	0	0	4	0	0	4	0	1	0	0	0	1	0	1	2	2	0	5	17
Hourly Total	1	14	1	8	0	24	0	0	9	1	0	10	0	1	1	0	0	2	0	2	4	10	0	16	52
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	2	2	4	2	0	10	0	0	1	1	0	2	0	7	0	0	0	7	0	1	0	10	0	11	30
4:15 PM	1	3	3	0	0	7	0	0	1	0	0	1	0	12	2	0	0	14	0	1	2	4	0	7	29
4:30 PM	4	3	2	1	0	10	0	0	2	1	0	3	0	13	2	1	0	16	0	3	3	7	0	13	42
4:45 PM	3	4	0	3	0	10	0	0	1	1	0	2	0	12	0	0	0	12	0	0	4	8	0	12	36
Hourly Total	10	12	9	6	0	37	0	0	5	3	0	8	0	44	4	1	0	49	0	5	9	29	0	43	137
5:00 PM	1	5	2	0	0	8	0	0	4	2	0	6	0	11	3	0	0	14	0	1	2	13	0	16	44
5:15 PM	1	3	2	1	0	7	0	0	2	1	0	3	0	7	0	0	0	7	0	0	3	10	0	13	30
5:30 PM	1	2	5	1	0	9	0	0	1	0	0	1	0	8	3	0	0	11	0	1	2	1	0	4	25
5:45 PM	0	0	3	0	0	3	0	0	4	0	0	4	0	10	1	0	0	11	0	3	3	3	0	9	27
Hourly Total	3	10	12	2	0	27	0	0	11	3	0	14	0	36	7	0	0	43	0	5	10	27	0	42	126
Grand Total	14	46	24	20	0	104	0	0	34	16	0	50	0	82	12	1	2	95	0	12	25	68	0	105	354
Approach %	13.5	44.2	23.1	19.2	-	-	0.0	0.0	68.0	32.0	-	-	0.0	86.3	12.6	1.1	-	-	0.0	11.4	23.8	64.8	-	-	-
Total %	4.0	13.0	6.8	5.6	-	29.4	0.0	0.0	9.6	4.5	-	14.1	0.0	23.2	3.4	0.3	-	26.8	0.0	3.4	7.1	19.2	-	29.7	-
Lights	14	46	24	19	-	103	0	0	33	15	-	48	0	82	12	1	-	95	0	12	25	68	-	105	351
% Lights	100.0	100.0	100.0	95.0	-	99.0	-	-	97.1	93.8	-	96.0	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	99.2
Buses	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	0.0	0.0	0.0	0.0	-	0.0	-	-	0.0	6.3	-	2.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Single-Unit Trucks	0.0	0.0	0.0	0.0	-	0.0	-	-	2.9	0.0	-	2.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Articulated Trucks	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	0.0	0.0	0.0	5.0	-	1.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0

% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	-	0.0	0.0	
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-



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Count Name: Ryan Rd and Retail Access Dr
(east) TMC
Site Code:
Start Date: 01/06/2026
Page No: 3

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Ryan Rd Eastbound						Ryan Rd Westbound						Retail Access Rd (east) Northbound						Access Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:15 AM	0	2	1	1	0	4	0	0	1	1	0	2	0	1	0	0	0	1	0	0	0	0	0	0	7
7:30 AM	0	2	1	1	0	4	0	0	5	3	0	8	0	0	0	0	1	0	0	0	0	0	0	0	12
7:45 AM	0	6	0	2	0	8	0	0	3	3	0	6	0	0	0	0	1	0	0	0	2	2	0	4	18
8:00 AM	0	4	0	0	0	4	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	2	0	3	9
Total	0	14	2	4	0	20	0	0	10	7	0	17	0	1	1	0	2	2	0	1	2	4	0	7	46
Approach %	0.0	70.0	10.0	20.0	-	-	0.0	0.0	58.8	41.2	-	-	0.0	50.0	50.0	0.0	-	-	0.0	14.3	28.6	57.1	-	-	-
Total %	0.0	30.4	4.3	8.7	-	43.5	0.0	0.0	21.7	15.2	-	37.0	0.0	2.2	2.2	0.0	-	4.3	0.0	2.2	4.3	8.7	-	15.2	-
PHF	0.000	0.583	0.500	0.500	-	0.625	0.000	0.000	0.500	0.583	-	0.531	0.000	0.250	0.250	0.000	-	0.500	0.000	0.250	0.250	0.500	-	0.438	0.639
Lights	0	14	2	4	-	20	0	0	10	6	-	16	0	1	1	0	-	2	0	1	2	4	-	7	45
% Lights	-	100.0	100.0	100.0	-	100.0	-	-	100.0	85.7	-	94.1	-	100.0	100.0	-	-	100.0	-	100.0	100.0	100.0	-	100.0	97.8
Buses	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	-	0.0	0.0	0.0	-	0.0	-	-	0.0	14.3	-	5.9	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	2.2
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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Count Name: Ryan Rd and Retail Access Drive
(west) TMC
Site Code:
Start Date: 01/06/2026
Page No: 1

Turning Movement Data

Start Time	Ryan Rd Eastbound					Ryan Rd Westbound					Access Dr Northbound					Int. Total
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	4	2	0	6	0	0	1	0	1	0	0	0	0	0	7
7:30 AM	0	4	2	0	6	0	0	4	0	4	0	0	0	0	0	10
7:45 AM	0	8	3	0	11	0	0	5	0	5	0	0	0	0	0	16
Hourly Total	0	16	7	0	23	0	0	10	0	10	0	0	0	0	0	33
8:00 AM	0	4	2	0	6	0	0	4	1	4	0	0	0	0	0	10
8:15 AM	0	5	1	0	6	0	0	6	0	6	0	0	0	0	0	12
8:30 AM	0	8	2	0	10	0	0	5	0	5	0	0	0	0	0	15
8:45 AM	0	7	5	0	12	0	0	7	0	7	0	0	0	0	0	19
Hourly Total	0	24	10	0	34	0	0	22	1	22	0	0	0	0	0	56
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	8	4	0	12	0	0	20	0	20	0	0	1	0	1	33
4:15 PM	0	8	9	0	17	0	0	17	0	17	0	0	0	0	0	34
4:30 PM	0	6	14	0	20	0	0	26	0	26	0	0	3	0	3	49
4:45 PM	0	6	27	0	33	0	0	21	0	21	0	0	3	0	3	57
Hourly Total	0	28	54	0	82	0	0	84	0	84	0	0	7	0	7	173
5:00 PM	0	8	9	0	17	0	0	31	0	31	0	0	0	0	0	48
5:15 PM	0	8	10	0	18	0	0	20	0	20	0	0	0	0	0	38
5:30 PM	0	6	11	0	17	0	0	11	0	11	0	0	3	0	3	31
5:45 PM	0	3	26	0	29	0	0	17	0	17	0	0	0	1	0	46
Hourly Total	0	25	56	0	81	0	0	79	0	79	0	0	3	1	3	163
Grand Total	0	93	127	0	220	0	0	195	1	195	0	0	10	1	10	425
Approach %	0.0	42.3	57.7	-	-	0.0	0.0	100.0	-	-	0.0	0.0	100.0	-	-	-
Total %	0.0	21.9	29.9	-	51.8	0.0	0.0	45.9	-	45.9	0.0	0.0	2.4	-	2.4	-
Lights	0	92	127	-	219	0	0	194	-	194	0	0	10	-	10	423
% Lights	-	98.9	100.0	-	99.5	-	-	99.5	-	99.5	-	-	100.0	-	100.0	99.5
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	-	0.0	-	0.0	-	-	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	-	0.5	-	0.5	-	-	0.0	-	0.0	0.2
Articulated Trucks	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Articulated Trucks	-	1.1	0.0	-	0.5	-	-	0.0	-	0.0	-	-	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	-	0.0	-	0.0	-	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-



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Count Name: Ryan Rd and Retail Access Drive
(west) TMC
Site Code:
Start Date: 01/06/2026
Page No: 2

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Ryan Rd Eastbound					Ryan Rd Westbound					Access Dr Northbound					Int. Total
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:15 AM	0	4	2	0	6	0	0	1	0	1	0	0	0	0	0	7
7:30 AM	0	4	2	0	6	0	0	4	0	4	0	0	0	0	0	10
7:45 AM	0	8	3	0	11	0	0	5	0	5	0	0	0	0	0	16
8:00 AM	0	4	2	0	6	0	0	4	1	4	0	0	0	0	0	10
Total	0	20	9	0	29	0	0	14	1	14	0	0	0	0	0	43
Approach %	0.0	69.0	31.0	-	-	0.0	0.0	100.0	-	-	0.0	0.0	0.0	-	-	-
Total %	0.0	46.5	20.9	-	67.4	0.0	0.0	32.6	-	32.6	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.625	0.750	-	0.659	0.000	0.000	0.700	-	0.700	0.000	0.000	0.000	-	0.000	0.672
Lights	0	20	9	-	29	0	0	14	-	14	0	0	0	-	0	43
% Lights	-	100.0	100.0	-	100.0	-	-	100.0	-	100.0	-	-	-	-	-	100.0
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	-	0.0	-	0.0	-	-	-	-	-	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	-	0.0	-	0.0	-	-	-	-	-	0.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	-	-	0.0	-	0.0	-	-	-	-	-	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	-	0.0	-	0.0	-	-	-	-	-	0.0
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-

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Count Name: Weber Rd and McGilvray Dr TMC
Site Code:
Start Date: 01/06/2026
Page No: 1

Turning Movement Data

Start Time	McGilvray Dr Eastbound						McGilvray Dr Westbound						Weber Rd Northbound						Weber Rd Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	0	2	0	2	0	3	0	5	0	8	0	3	190	4	0	197	0	2	130	1	0	133	340
7:15 AM	0	0	0	1	0	1	0	0	0	4	0	4	0	1	255	2	0	258	0	7	186	0	0	193	456
7:30 AM	0	1	0	3	0	4	0	4	0	7	0	11	0	1	237	5	0	243	0	2	176	1	0	179	437
7:45 AM	0	0	0	1	0	1	0	5	0	7	0	12	0	1	221	6	0	228	0	3	203	1	0	207	448
Hourly Total	0	1	0	7	0	8	0	12	0	23	0	35	0	6	903	17	0	926	0	14	695	3	0	712	1681
8:00 AM	0	0	0	2	0	2	0	7	0	5	0	12	0	0	184	4	0	188	0	6	204	0	0	210	412
8:15 AM	0	0	0	1	0	1	0	5	0	3	0	8	0	1	150	8	0	159	0	5	206	3	0	214	382
8:30 AM	0	1	0	0	0	1	0	5	2	3	0	10	0	0	160	2	0	162	0	4	209	1	0	214	387
8:45 AM	0	0	0	3	0	3	0	8	0	6	0	14	0	0	163	3	0	166	0	6	190	1	0	197	380
Hourly Total	0	1	0	6	0	7	0	25	2	17	0	44	0	1	657	17	0	675	0	21	809	5	0	835	1561
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	0	3	0	3	0	10	0	10	0	20	0	3	200	9	0	212	0	6	281	1	0	288	523
4:15 PM	0	0	0	1	0	1	0	3	0	7	0	10	0	2	235	13	0	250	0	10	291	5	0	306	567
4:30 PM	0	2	0	2	0	4	0	7	0	11	0	18	0	4	253	11	0	268	0	13	292	2	0	307	597
4:45 PM	0	0	0	1	0	1	0	9	0	7	0	16	0	1	235	8	0	244	0	14	286	1	0	301	562
Hourly Total	0	2	0	7	0	9	0	29	0	35	0	64	0	10	923	41	0	974	0	43	1150	9	0	1202	2249
5:00 PM	0	0	0	0	0	0	0	5	0	5	0	10	0	2	246	10	0	258	0	4	258	1	0	263	531
5:15 PM	0	0	0	2	0	2	0	4	0	3	0	7	0	4	240	15	0	259	0	3	261	2	0	266	534
5:30 PM	0	0	2	2	0	4	0	8	0	9	0	17	0	0	214	11	0	225	0	13	273	1	0	287	533
5:45 PM	0	0	1	0	0	1	0	11	0	5	1	16	0	3	220	9	0	232	0	8	203	0	0	211	460
Hourly Total	0	0	3	4	0	7	0	28	0	22	1	50	0	9	920	45	0	974	0	28	995	4	0	1027	2058
Grand Total	0	4	3	24	0	31	0	94	2	97	1	193	0	26	3403	120	0	3549	0	106	3649	21	0	3776	7549
Approach %	0.0	12.9	9.7	77.4	-	-	0.0	48.7	1.0	50.3	-	-	0.0	0.7	95.9	3.4	-	-	0.0	2.8	96.6	0.6	-	-	-
Total %	0.0	0.1	0.0	0.3	-	0.4	0.0	1.2	0.0	1.3	-	2.6	0.0	0.3	45.1	1.6	-	47.0	0.0	1.4	48.3	0.3	-	50.0	-
Lights	0	4	3	23	-	30	0	91	2	94	-	187	0	25	3192	114	-	3331	0	103	3411	18	-	3532	7080
% Lights	-	100.0	100.0	95.8	-	96.8	-	96.8	100.0	96.9	-	96.9	-	96.2	93.8	95.0	-	93.9	-	97.2	93.5	85.7	-	93.5	93.8
Buses	0	0	0	0	-	0	0	0	0	2	-	2	0	0	12	2	-	14	0	1	47	1	-	49	65
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	2.1	-	1.0	-	0.0	0.4	1.7	-	0.4	-	0.9	1.3	4.8	-	1.3	0.9
Single-Unit Trucks	0	0	0	1	-	1	0	3	0	1	-	4	0	1	94	4	-	99	0	2	71	2	-	75	179
% Single-Unit Trucks	-	0.0	0.0	4.2	-	3.2	-	3.2	0.0	1.0	-	2.1	-	3.8	2.8	3.3	-	2.8	-	1.9	1.9	9.5	-	2.0	2.4
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	105	0	-	105	0	0	120	0	-	120	225
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	3.1	0.0	-	3.0	-	0.0	3.3	0.0	-	3.2	3.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0

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Site Plan

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of Service A.	>10 - 20
C	Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 - 35
D	The volume-to-capacity ratio is high and either progression is ineffective or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable.	>35 - 55
E	Progression is unfavorable. The volume-to-capacity ratio is high and the cycle length is long. Individual cycle failures are frequent.	>55 - 80
F	The volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	>80.0
Unsignalized Intersections		
Level of Service	Average Total Delay (SEC/VEH)	
A	0 - 10	
B	> 10 - 15	
C	> 15 - 25	
D	> 25 - 35	
E	> 35 - 50	
F	> 50	

Source: *Highway Capacity Manual*, 6th Edition.

Capacity Analysis Summary Sheets
Existing Weekday Morning Peak Hour

Intersection Capacity Utilization

7: Retail Access Drive (east)/N-S Access Road & Ryan Drive

01/13/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	14	2	4	0	10	7	1	1	0	1	2	4
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	20	0	0	17	0	0	2	0	0	7	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.94	0.85	0.95	0.94	0.85	0.95	0.98	0.85	0.95	0.91	0.85
Saturated Flow (vph)	0	1778	0	0	1783	0	0	1853	0	0	1725	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	154		0	1783		0	702		0	1693	
Reference Time A (s)	0.0	15.6		0.0	1.1		0.0	0.3		0.0	0.5	
Adj Saturation B (vph)	0	0		0	1783		0	0		0	0	
Reference Time B (s)	8.9	9.3		0.0	1.1		8.1	8.1		8.1	8.5	
Reference Time (s)	9.3			1.1			0.3			0.5		
Adj Reference Time (s)	13.3			8.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	1.3		0.0	1.1		0.0	0.1		0.0	0.5	
Ref Time Seperate (s)	0.9	0.1		0.0	0.7		0.1	0.1		0.1	0.1	
Reference Time (s)	1.3	1.3		1.1	1.1		0.1	0.1		0.5	0.5	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	13.3		8.0									
Split Option (s)	16.0		16.0									
Minimum (s)	13.3		8.0		21.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	17.8%			ICU Level of Service						A		
Reference Times and Phasing Options do not represent an optimized timing plan.												

Lanes, Volumes, Timings
1: Renwick Road & Weber Road

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	257	399	50	69	252	92	52	815	77	140	677	112
Future Volume (vph)	257	399	50	69	252	92	52	815	77	140	677	112
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Storage Length (ft)	255		0	250		385	244		0	255		260
Storage Lanes	2		0	2		1	2		0	2		1
Taper Length (ft)	260			260			260			255		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	0.97	0.91	0.91	0.97	0.91	1.00
Frt		0.983				0.850		0.987				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3355	0	2870	3519	1357	3303	4798	0	3242	5250	1524
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3355	0	2870	3519	1357	3303	4798	0	3242	5250	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10				65		16				120
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1732			655			1043			1170	
Travel Time (s)		26.2			9.9			15.8			17.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	6%	4%	22%	8%	19%	6%	6%	14%	8%	4%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	276	483	0	74	271	99	56	959	0	151	728	120
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases						8						6
Detector Phase	7	4		3	8	1	5	2		1	6	7
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0	3.0	3.0	15.0		3.0	15.0	3.0
Minimum Split (s)	9.5	22.5		9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	15.0	35.0		15.0	35.0	15.0	15.0	60.0		15.0	60.0	15.0
Total Split (%)	12.0%	28.0%		12.0%	28.0%	12.0%	12.0%	48.0%		12.0%	48.0%	12.0%
Yellow Time (s)	3.5	4.5		3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5		1.0	1.5	1.0	1.0	1.5		1.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0		4.5	6.0	4.5	4.5	6.0		4.5	6.0	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Min		None	C-Min	None
Act Effct Green (s)	16.7	31.0		8.6	20.8	37.9	7.5	55.5		11.0	61.0	83.7
Actuated g/C Ratio	0.13	0.25		0.07	0.17	0.30	0.06	0.44		0.09	0.49	0.67
v/c Ratio	0.60	0.57		0.38	0.46	0.22	0.28	0.45		0.53	0.28	0.11
Control Delay (s/veh)	56.7	43.2		60.6	48.8	12.6	59.3	26.0		60.9	21.2	2.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	56.7	43.2		60.6	48.8	12.6	59.3	26.0		60.9	21.2	2.1
LOS	E	D		E	D	B	E	C		E	C	A
Approach Delay (s/veh)		48.1			42.7			27.8			24.9	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	109	182		29	105	20	22	189		61	128	0
Queue Length 95th (ft)	153	222		54	139	55	44	274		94	189	25

25-380 - Residential Development - Crest Hill
Exiting Weekday Morning Peak Hour

Synchro 12 Report
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Lanes, Volumes, Timings
1: Renwick Road & Weber Road

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)	1652			575			963			1090		
Turn Bay Length (ft)	255			250		385	244			255		260
Base Capacity (vph)	458	858		244	816	463	277	2249		303	2616	1060
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.60	0.56		0.30	0.33	0.21	0.20	0.43		0.50	0.28	0.11

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay (s/veh): 33.8

Intersection LOS: C

Intersection Capacity Utilization 58.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: Renwick Road & Weber Road

	Ø1		Ø2 (R)		Ø3		Ø4
15 s		60 s		15 s		35 s	
	Ø5		Ø6 (R)		Ø7		Ø8
15 s		60 s		15 s		35 s	

Lanes, Volumes, Timings
5: Weber Road & Ryan Drive

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔		↔		↔↔↔		↔	↔↔↔	
Traffic Volume (vph)	0	0	0	6	0	9	0	935	16	13	783	0
Future Volume (vph)	0	0	0	6	0	9	0	935	16	13	783	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	315		0
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			125		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.91	0.91
Frt						0.850		0.997				
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1900	0	1805	0	1615	0	4838	0	1805	4940	0
Flt Permitted				0.950						0.264		
Satd. Flow (perm)	0	1900	0	1805	0	1615	0	4838	0	502	4940	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91		4				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		487			155			1028			1043	
Travel Time (s)		11.1			3.5			15.6			15.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	7%	0%	0%	5%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	6	0	10	0	1012	0	14	833	0
Turn Type				Prot		Prot		NA		pm+pt	NA	
Protected Phases		4		3		3		2		1	6	
Permitted Phases	4						2			6		
Detector Phase	4	4		3		3	2	2		1	6	
Switch Phase												
Minimum Initial (s)	1.0	1.0		5.0		5.0	15.0	15.0		3.0	15.0	
Minimum Split (s)	7.0	7.0		11.0		11.0	24.0	24.0		11.5	23.0	
Total Split (s)	7.0	7.0		20.0		20.0	108.0	108.0		15.0	123.0	
Total Split (%)	4.7%	4.7%		13.3%		13.3%	72.0%	72.0%		10.0%	82.0%	
Yellow Time (s)	4.5	4.5		4.5		4.5	4.5	4.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5		1.5	1.5	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		0.0	0.0	
Total Lost Time (s)		6.0		6.0		6.0		6.0		3.5	5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None		None	C-Min	C-Min		None	C-Min	
Act Effct Green (s)				6.1		6.1		138.8		141.4	142.9	
Actuated g/C Ratio				0.04		0.04		0.93		0.94	0.95	
v/c Ratio				0.08		0.07		0.23		0.03	0.18	
Control Delay (s/veh)				71.2		0.8		1.7		0.8	0.7	
Queue Delay				0.0		0.0		0.0		0.0	0.0	
Total Delay (s/veh)				71.2		0.8		1.7		0.8	0.7	
LOS				E		A		A		A	A	
Approach Delay (s/veh)					27.2			1.7			0.7	
Approach LOS					C			A			A	
Queue Length 50th (ft)				6		0		0		0	0	
Queue Length 95th (ft)				22		0		85		3	36	

25-380 - Residential Development - Crest Hill
Exiting Weekday Morning Peak Hour

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Lanes, Volumes, Timings
5: Weber Road & Ryan Drive

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		407			75			948			963	
Turn Bay Length (ft)										315		
Base Capacity (vph)				168		233		4476		573	4705	
Starvation Cap Reductn				0		0		0		0	0	
Spillback Cap Reductn				0		0		0		0	0	
Storage Cap Reductn				0		0		0		0	0	
Reduced v/c Ratio				0.04		0.04		0.23		0.02	0.18	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.23

Intersection Signal Delay (s/veh): 1.5

Intersection LOS: A

Intersection Capacity Utilization 32.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Weber Road & Ryan Drive



Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑		↑
Traffic Vol, veh/h	615	1	0	413	0	4
Future Vol, veh/h	615	1	0	413	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	7	0	0	11	0	25
Mvmt Flow	647	1	0	435	0	4
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	324
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.6
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	4.15
Pot Cap-1 Maneuver	-	-	0	-	0	524
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	524
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Ctrl Dly, s/v	0	0		11.92		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	524	-	-	-		
HCM Lane V/C Ratio	0.008	-	-	-		
HCM Ctrl Dly (s/v)	11.9	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		

Intersection

Int Delay, s/veh 0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	603	16	13	403	10	9
Future Vol, veh/h	603	16	13	403	10	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	285	-	0	25
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	7	0	0	10	0	11
Mvmt Flow	648	17	14	433	11	10

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	666
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	933
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	933
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.28	12.69
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	389	646	-	-	933	-
HCM Lane V/C Ratio	0.028	0.015	-	-	0.015	-
HCM Ctrl Dly (s/v)	14.5	10.7	-	-	8.9	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-

Intersection

Int Delay, s/veh 1

Movement EBT EBR WBL WBT NBL NBRLane Configurations      

Traffic Vol, veh/h 599 13 14 398 18 46

Future Vol, veh/h 599 13 14 398 18 46

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - 240 120 - 0 -

Veh in Median Storage, # 0 - - 0 1 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 93 93 93 93 93 93

Heavy Vehicles, % 7 0 0 12 0 0

Mvmt Flow 644 14 15 428 19 49

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 658 0 1102 644

Stage 1 - - - - 644 -

Stage 2 - - - - 458 -

Critical Hdwy - - 4.1 - 6.4 6.2

Critical Hdwy Stg 1 - - - - 5.4 -

Critical Hdwy Stg 2 - - - - 5.4 -

Follow-up Hdwy - - 2.2 - 3.5 3.3

Pot Cap-1 Maneuver - - 939 - 236 476

Stage 1 - - - - 527 -

Stage 2 - - - - 641 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 939 - 232 476

Mov Cap-2 Maneuver - - - - 367 -

Stage 1 - - - - 527 -

Stage 2 - - - - 631 -

Approach EB WB NB

HCM Ctrl Dly, s/v 0 0.3 14.71

HCM LOS B

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 439 - - 939 -

HCM Lane V/C Ratio 0.157 - - 0.016 -

HCM Ctrl Dly (s/v) 14.7 - - 8.9 -

HCM Lane LOS B - - A -

HCM 95th %tile Q(veh) 0.6 - - 0 -

Intersection

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↓			↑↑		↑
Traffic Vol, veh/h	20	9	0	15	0	0
Future Vol, veh/h	20	9	0	15	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	30	13	0	22	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 37
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.2
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.3
Pot Cap-1 Maneuver	-	-	0 - 0 1042
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 1042
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS			A

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

Intersection						
Int Delay, s/veh	7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	3	0	0	17	0
Future Vol, veh/h	0	3	0	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	56	56	56	56
Heavy Vehicles, %	0	0	0	0	6	0
Mvmt Flow	0	5	0	0	30	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	5	0	4	3
Stage 1	-	-	-	-	3	-
Stage 2	-	-	-	-	2	-
Critical Hdwy	-	-	4.1	-	6.46	6.2
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	-	-	2.2	-	3.554	3.3
Pot Cap-1 Maneuver	-	-	1629	-	1007	1087
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	1011	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1629	-	1007	1087
Mov Cap-2 Maneuver	-	-	-	-	1007	-
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	1011	-
Approach	EB		WB		NB	
HCM Ctrl Dly, s/v	0		0		8.69	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1007	-	-	1629	-	
HCM Lane V/C Ratio	0.03	-	-	-	-	
HCM Ctrl Dly (s/v)	8.7	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕	↕	↕	↕	
Traffic Vol, veh/h	1	0	7	16	0	23	3	927	18	18	769	2
Future Vol, veh/h	1	0	7	16	0	23	3	927	18	18	769	2
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	-	-	-	-	-	-	125	-	85	130	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	9	0	7	12	6	5	0
Mvmt Flow	1	0	7	17	0	24	3	966	19	19	801	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1329	1830	402	1410	1813	483	803	0	0	984	0	0
Stage 1	840	840	-	972	972	-	-	-	-	-	-	-
Stage 2	489	991	-	438	841	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	7.08	4.1	-	-	4.22	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.39	2.2	-	-	2.26	-	-
Pot Cap-1 Maneuver	115	77	604	100	79	511	830	-	-	674	-	-
Stage 1	330	384	-	275	333	-	-	-	-	-	-	-
Stage 2	534	327	-	573	383	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	106	75	604	96	77	511	830	-	-	674	-	-
Mov Cap-2 Maneuver	223	187	-	204	195	-	-	-	-	-	-	-
Stage 1	321	373	-	274	332	-	-	-	-	-	-	-
Stage 2	507	326	-	550	373	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	12.36		18.06		0.03		0.24	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	830	-	-	497 316	674	-	-
HCM Lane V/C Ratio	0.004	-	-	0.017 0.129	0.028	-	-
HCM Ctrl Dly (s/v)	9.4	-	-	12.4 18.1	10.5	-	-
HCM Lane LOS	A	-	-	B C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.4	0.1	-	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	36	32	0	0	7
Future Vol, veh/h	0	36	32	0	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	12	7	0	0	0
Mvmt Flow	0	45	40	0	0	9
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	-	0	-	0	-	40
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	1037
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	1037
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		8.5		
HCM LOS	A					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	1037		
HCM Lane V/C Ratio	-	-	-	0.008		
HCM Ctrl Dly (s/v)	-	-	-	8.5		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0		

Intersection

Int Delay, s/veh 1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	19	32	1	0	0
Future Vol, veh/h	17	19	32	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	16	6	0	0	0
Mvmt Flow	23	26	43	1	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	45	0	0 116 44
Stage 1	-	-	- 44 -
Stage 2	-	-	- 72 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	1577	-	- 886 1032
Stage 1	-	-	- 984 -
Stage 2	-	-	- 956 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1577	-	- 872 1032
Mov Cap-2 Maneuver	-	-	- 872 -
Stage 1	-	-	- 969 -
Stage 2	-	-	- 956 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	3.46	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	850	-	-	-	-
HCM Lane V/C Ratio	0.015	-	-	-	-
HCM Ctrl Dly (s/v)	7.3	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Capacity Analysis Summary Sheets
Existing Weekday Evening Peak Hour

Intersection Capacity Utilization

7: Retail Access Drive (east)/N-S Access Road & Ryan Drive

01/13/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	9	6	0	5	4	47	1	1	5	9	32
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	35	0	0	9	0	0	49	0	0	46	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.93	0.85	0.95	0.95	0.85	0.95	0.89	0.85
Saturated Flow (vph)	0	1798	0	0	1773	0	0	1803	0	0	1692	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	183		0	1773		0	328		0	1772	
Reference Time A (s)	0.0	22.9		0.0	0.6		0.0	18.0		0.0	3.1	
Adj Saturation B (vph)	0	0		0	1773		0	0		0	0	
Reference Time B (s)	9.3	10.3		0.0	0.6		11.1	11.3		8.3	11.3	
Reference Time (s)	10.3			0.6			11.3			3.1		
Adj Reference Time (s)	14.3			8.0			15.3			8.0		
Split Option												
Ref Time Combined (s)	0.0	2.3		0.0	0.6		0.0	3.3		0.0	3.3	
Ref Time Seperate (s)	1.3	0.6		0.0	0.3		3.1	0.1		0.3	0.6	
Reference Time (s)	2.3	2.3		0.6	0.6		3.3	3.3		3.3	3.3	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	14.3		15.3									
Split Option (s)	16.0		16.0									
Minimum (s)	14.3		15.3		29.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.7%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Lanes, Volumes, Timings
1: Renwick Road & Weber Road

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	259	272	68	156	484	136	134	790	61	166	1042	369
Future Volume (vph)	259	272	68	156	484	136	134	790	61	166	1042	369
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Storage Length (ft)	255		0	250		385	244		0	255		260
Storage Lanes	2		0	2		1	2		0	2		1
Taper Length (ft)	260			260			260			255		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	0.97	0.91	0.91	0.97	0.91	1.00
Frt		0.970				0.850		0.989				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3225	0	3019	3725	1538	3367	4896	0	3400	5151	1599
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3225	0	3019	3725	1538	3367	4896	0	3400	5151	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23				79		12				80
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1732			655			1043			1170	
Travel Time (s)		26.2			9.9			15.8			17.7	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	7%	15%	16%	2%	5%	4%	3%	28%	3%	6%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	264	347	0	159	494	139	137	868	0	169	1063	377
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases						8						6
Detector Phase	7	4		3	8	1	5	2		1	6	7
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0	3.0	3.0	15.0		3.0	15.0	3.0
Minimum Split (s)	9.5	22.5		9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	15.0	35.0		15.0	35.0	15.0	15.0	60.0		15.0	60.0	15.0
Total Split (%)	12.0%	28.0%		12.0%	28.0%	12.0%	12.0%	48.0%		12.0%	48.0%	12.0%
Yellow Time (s)	3.5	4.5		3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5		1.0	1.5	1.0	1.0	1.5		1.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0		4.5	6.0	4.5	4.5	6.0		4.5	6.0	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Min		None	C-Min	None
Act Effct Green (s)	16.0	30.9		11.9	26.7	43.4	9.9	50.5		10.7	51.4	73.4
Actuated g/C Ratio	0.13	0.25		0.10	0.21	0.35	0.08	0.40		0.09	0.41	0.59
v/c Ratio	0.60	0.43		0.56	0.62	0.24	0.52	0.44		0.58	0.50	0.39
Control Delay (s/veh)	57.1	38.1		61.1	47.9	13.3	62.2	28.5		63.3	29.5	12.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	57.1	38.1		61.1	47.9	13.3	62.2	28.5		63.3	29.5	12.6
LOS	E	D		E	D	B	E	C		E	C	B
Approach Delay (s/veh)		46.3			44.5			33.1			29.1	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	105	115		64	190	32	55	186		68	235	123
Queue Length 95th (ft)	145	158		97	245	80	89	239		107	301	196

25-380 - Residential Development - Crest Hill
Exiting Weekday Evening Peak Hour

Synchro 12 Report
Page 1

Lanes, Volumes, Timings
1: Renwick Road & Weber Road

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)	1652			575			963			1090		
Turn Bay Length (ft)	255			250		385	244			255		260
Base Capacity (vph)	440	833		297	875	592	289	2185		304	2307	971
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.60	0.42		0.54	0.56	0.23	0.47	0.40		0.56	0.46	0.39

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay (s/veh): 35.7

Intersection LOS: D

Intersection Capacity Utilization 60.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: Renwick Road & Weber Road

	Ø1		Ø2 (R)		Ø3		Ø4
15 s		60 s		15 s		35 s	
	Ø5		Ø6 (R)		Ø7		Ø8
15 s		60 s		15 s		35 s	

Lanes, Volumes, Timings
5: Weber Road & Ryan Drive

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	35	0	49	0	936	25	57	1209	0
Future Volume (vph)	0	0	0	35	0	49	0	936	25	57	1209	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	315		0
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			125		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.91	0.91
Frt						0.850		0.996				
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1900	0	1805	0	1583	0	4926	0	1805	4803	0
Flt Permitted				0.950						0.252		
Satd. Flow (perm)	0	1900	0	1805	0	1583	0	4926	0	479	4803	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91		6				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		487			155			1028			1043	
Travel Time (s)		11.1			3.5			15.6			15.8	
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
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	5%	0%	0%	8%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	38	0	53	0	1044	0	62	1314	0
Turn Type				Prot		Prot		NA		pm+pt	NA	
Protected Phases		4		3		3		2		1	6	
Permitted Phases	4						2			6		
Detector Phase	4	4		3		3	2	2		1	6	
Switch Phase												
Minimum Initial (s)	1.0	1.0		5.0		5.0	15.0	15.0		3.0	15.0	
Minimum Split (s)	7.0	7.0		11.0		11.0	24.0	24.0		11.5	23.0	
Total Split (s)	7.0	7.0		20.0		20.0	108.0	108.0		15.0	123.0	
Total Split (%)	4.7%	4.7%		13.3%		13.3%	72.0%	72.0%		10.0%	82.0%	
Yellow Time (s)	4.5	4.5		4.5		4.5	4.5	4.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5		1.5	1.5	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		0.0	0.0	
Total Lost Time (s)		6.0		6.0		6.0		6.0		3.5	5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None		None	C-Min	C-Min		None	C-Min	
Act Effct Green (s)				8.6		8.6		125.1		134.2	133.7	
Actuated g/C Ratio				0.06		0.06		0.83		0.89	0.89	
v/c Ratio				0.37		0.30		0.25		0.13	0.31	
Control Delay (s/veh)				77.3		6.3		3.7		1.8	1.8	
Queue Delay				0.0		0.0		0.0		0.0	0.0	
Total Delay (s/veh)				77.3		6.3		3.7		1.8	1.8	
LOS				E		A		A		A	A	
Approach Delay (s/veh)					36.0			3.7			1.8	
Approach LOS					D			A			A	
Queue Length 50th (ft)				37		0		80		5	62	
Queue Length 95th (ft)				76		9		108		13	87	

25-380 - Residential Development - Crest Hill
Exiting Weekday Evening Peak Hour

Synchro 12 Report
Page 3

Lanes, Volumes, Timings
5: Weber Road & Ryan Drive

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		407			75			948			963	
Turn Bay Length (ft)										315		
Base Capacity (vph)				168		230		4109		530	4282	
Starvation Cap Reductn				0		0		0		0	0	
Spillback Cap Reductn				0		0		0		0	0	
Storage Cap Reductn				0		0		0		0	0	
Reduced v/c Ratio				0.23		0.23		0.25		0.12	0.31	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.37

Intersection Signal Delay (s/veh): 3.8

Intersection LOS: A

Intersection Capacity Utilization 57.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: Weber Road & Ryan Drive



Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑		↑
Traffic Vol, veh/h	485	14	0	776	0	9
Future Vol, veh/h	485	14	0	776	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	8	7	0	6	0	11
Mvmt Flow	522	15	0	834	0	10
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	268
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.32
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	4.01
Pot Cap-1 Maneuver	-	-	0	-	0	602
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	602
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Ctrl Dly, s/v	0	0		11.08		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	602	-	-	-		
HCM Lane V/C Ratio	0.016	-	-	-		
HCM Ctrl Dly (s/v)	11.1	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		

Intersection

Int Delay, s/veh 0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	478	16	15	759	17	13
Future Vol, veh/h	478	16	15	759	17	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	285	-	0	25
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	5	0	0	4	0	0
Mvmt Flow	525	18	16	834	19	14

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	543
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1036
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1036
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.17	12.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	379	742	-	-	1036	-
HCM Lane V/C Ratio	0.049	0.019	-	-	0.016	-
HCM Ctrl Dly (s/v)	15	9.9	-	-	8.5	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-

Intersection

Int Delay, s/veh 0.8

Movement EBT EBR WBL WBT NBL NBRLane Configurations      

Traffic Vol, veh/h 459 32 46 754 20 22

Future Vol, veh/h 459 32 46 754 20 22

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - 240 120 - 0 -

Veh in Median Storage, # 0 - - 0 1 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 93 93 93 93 93 93

Heavy Vehicles, % 9 0 0 5 0 0

Mvmt Flow 494 34 49 811 22 24

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 528 0 1403 494

Stage 1 - - - - 494 -

Stage 2 - - - - 910 -

Critical Hdwy - - 4.1 - 6.4 6.2

Critical Hdwy Stg 1 - - - - 5.4 -

Critical Hdwy Stg 2 - - - - 5.4 -

Follow-up Hdwy - - 2.2 - 3.5 3.3

Pot Cap-1 Maneuver - - 1049 - 156 580

Stage 1 - - - - 618 -

Stage 2 - - - - 396 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 1049 - 148 580

Mov Cap-2 Maneuver - - - - 276 -

Stage 1 - - - - 618 -

Stage 2 - - - - 377 -

Approach EB WB NB

HCM Ctrl Dly, s/v 0 0.49 15.74

HCM LOS C

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 380 - - 1049 -

HCM Lane V/C Ratio 0.119 - - 0.047 -

HCM Ctrl Dly (s/v) 15.7 - - 8.6 -

HCM Lane LOS C - - A -

HCM 95th %tile Q(veh) 0.4 - - 0.1 -

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↓			↑↑		↑
Traffic Vol, veh/h	28	54	0	84	0	7
Future Vol, veh/h	28	54	0	84	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	37	71	0	111	0	9
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	72
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	995
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	995
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Ctrl Dly, s/v	0	0		8.65		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	995	-	-	-		
HCM Lane V/C Ratio	0.009	-	-	-		
HCM Ctrl Dly (s/v)	8.7	-	-	-		
HCM Lane LOS	A	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		

Intersection						
Int Delay, s/veh	3.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	15	0	0	9	0
Future Vol, veh/h	0	15	0	0	9	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	11	0
Mvmt Flow	0	20	0	0	12	0
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	20	0	11	10
Stage 1	-	-	-	-	10	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.1	-	6.51	6.2
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	-	-	2.2	-	3.599	3.3
Pot Cap-1 Maneuver	-	-	1609	-	986	1077
Stage 1	-	-	-	-	990	-
Stage 2	-	-	-	-	999	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1609	-	986	1077
Mov Cap-2 Maneuver	-	-	-	-	986	-
Stage 1	-	-	-	-	990	-
Stage 2	-	-	-	-	999	-
Approach	EB	WB		NB		
HCM Ctrl Dly, s/v	0	0		8.7		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	986	-	-	1609	-	
HCM Lane V/C Ratio	0.012	-	-	-	-	
HCM Ctrl Dly (s/v)	8.7	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕	↕	↕	↕	
Traffic Vol, veh/h	2	0	7	29	0	36	10	923	45	43	1192	9
Future Vol, veh/h	2	0	7	29	0	36	10	923	45	43	1192	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	-	-	-	-	-	-	125	-	85	130	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	3	0	4	7	2	8	0
Mvmt Flow	2	0	7	31	0	38	11	982	48	46	1268	10

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1877	2415	639	1729	2372	491	1278	0	0	1030	0	0
Stage 1	1364	1364	-	1003	1003	-	-	-	-	-	-	-
Stage 2	512	1051	-	726	1369	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.96	4.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.33	2.2	-	-	2.22	-	-
Pot Cap-1 Maneuver	45	33	424	58	35	521	550	-	-	670	-	-
Stage 1	158	217	-	263	322	-	-	-	-	-	-	-
Stage 2	518	306	-	387	216	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	38	30	424	52	32	521	550	-	-	670	-	-
Mov Cap-2 Maneuver	112	117	-	158	122	-	-	-	-	-	-	-
Stage 1	147	203	-	258	316	-	-	-	-	-	-	-
Stage 2	471	300	-	354	202	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	19.24		24.1		0.12		0.37	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	550	-	-	262 257	670	-	-
HCM Lane V/C Ratio	0.019	-	-	0.036 0.269	0.068	-	-
HCM Ctrl Dly (s/v)	11.7	-	-	19.2 24.1	10.8	-	-
HCM Lane LOS	B	-	-	C C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1 1.1	0.2	-	-

Intersection

Int Delay, s/veh 1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	88	40	0	0	25
Future Vol, veh/h	0	88	40	0	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	5	8	5	0	0	0
Mvmt Flow	0	99	45	0	0	28

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 45
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.2
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.3
Pot Cap-1 Maneuver	0	-	- 0 1031
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 1031
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	8.59
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	1031
HCM Lane V/C Ratio	-	-	-	0.027
HCM Ctrl Dly (s/v)	-	-	-	8.6
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	27	61	33	4	7	7
Future Vol, veh/h	27	61	33	4	7	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	3	3	0	0	14
Mvmt Flow	29	66	36	4	8	8
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	40	0	-	0	163	38
Stage 1	-	-	-	-	38	-
Stage 2	-	-	-	-	125	-
Critical Hdwy	4.1	-	-	-	6.4	6.34
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.426
Pot Cap-1 Maneuver	1582	-	-	-	832	1001
Stage 1	-	-	-	-	990	-
Stage 2	-	-	-	-	906	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1582	-	-	-	816	1001
Mov Cap-2 Maneuver	-	-	-	-	816	-
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	906	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	2.25	0		9.07		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	552	-	-	-	-	899
HCM Lane V/C Ratio	0.019	-	-	-	-	0.017
HCM Ctrl Dly (s/v)	7.3	0	-	-	-	9.1
HCM Lane LOS	A	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.1

Capacity Analysis Summary Sheets
Year 2032 No-Build Weekday Morning Peak Hour

Intersection Capacity Utilization

7: Retail Access Drive (east)/N-S Access Road & Ryan Drive

01/13/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	125	2	4	0	10	7	1	1	0	1	2	88
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	131	0	0	17	0	0	2	0	0	91	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.94	0.85	0.95	0.98	0.85	0.95	0.85	0.85
Saturated Flow (vph)	0	1801	0	0	1783	0	0	1853	0	0	1624	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	124		0	1783		0	255		0	1624	
Reference Time A (s)	0.0	127.0		0.0	1.1		0.0	0.9		0.0	6.7	
Adj Saturation B (vph)	0	0		0	1783		0	0		0	0	
Reference Time B (s)	16.3	16.7		0.0	1.1		8.1	8.1		8.1	14.7	
Reference Time (s)	16.7				1.1		0.9				6.7	
Adj Reference Time (s)	20.7				8.0		8.0				10.7	
Split Option												
Ref Time Combined (s)	0.0	8.7		0.0	1.1		0.0	0.1		0.0	6.7	
Ref Time Seperate (s)	8.3	0.1		0.0	0.7		0.1	0.1		0.1	0.1	
Reference Time (s)	8.7	8.7		1.1	1.1		0.1	0.1		6.7	6.7	
Adj Reference Time (s)	12.7	12.7		8.0	8.0		8.0	8.0		10.7	10.7	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.7		10.7									
Split Option (s)	20.7		18.7									
Minimum (s)	20.7		10.7		31.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	26.2%		ICU Level of Service		A							
Reference Times and Phasing Options do not represent an optimized timing plan.												

Lanes, Volumes, Timings
1: Renwick Road & Weber Road

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	267	426	59	72	265	105	63	873	80	178	726	116
Future Volume (vph)	267	426	59	72	265	105	63	873	80	178	726	116
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Storage Length (ft)	255		0	250		385	244		0	255		260
Storage Lanes	2		0	2		1	2		0	2		1
Taper Length (ft)	260			260			260			255		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	0.97	0.91	0.91	0.97	0.91	1.00
Frt		0.982				0.850		0.987				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3352	0	2870	3519	1357	3303	4799	0	3242	5250	1524
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3352	0	2870	3519	1357	3303	4799	0	3242	5250	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11				65		15				125
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1732			655			1043			1170	
Travel Time (s)		26.2			9.9			15.8			17.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	6%	4%	22%	8%	19%	6%	6%	14%	8%	4%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	287	521	0	77	285	113	68	1025	0	191	781	125
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases						8						6
Detector Phase	7	4		3	8	1	5	2		1	6	7
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0	3.0	3.0	15.0		3.0	15.0	3.0
Minimum Split (s)	9.5	22.5		9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	15.0	35.0		15.0	35.0	15.0	15.0	60.0		15.0	60.0	15.0
Total Split (%)	12.0%	28.0%		12.0%	28.0%	12.0%	12.0%	48.0%		12.0%	48.0%	12.0%
Yellow Time (s)	3.5	4.5		3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5		1.0	1.5	1.0	1.0	1.5		1.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0		4.5	6.0	4.5	4.5	6.0		4.5	6.0	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Min		None	C-Min	None
Act Effct Green (s)	17.2	31.9		8.7	21.2	39.1	8.0	53.7		11.8	59.6	82.9
Actuated g/C Ratio	0.14	0.26		0.07	0.17	0.31	0.06	0.43		0.09	0.48	0.66
v/c Ratio	0.61	0.60		0.39	0.48	0.24	0.32	0.50		0.62	0.31	0.12
Control Delay (s/veh)	56.5	43.5		60.6	48.8	14.6	59.5	27.5		63.7	22.1	2.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	56.5	43.5		60.6	48.8	14.6	59.5	27.5		63.7	22.1	2.2
LOS	E	D		E	D	B	E	C		E	C	A
Approach Delay (s/veh)		48.1			42.5			29.5			27.1	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	113	196		31	111	27	27	217		77	144	0
Queue Length 95th (ft)	160	245		56	146	69	51	283		118	202	26

25-380 - Residential Development - Crest Hill
No-Build Weekday Morning Peak Hour

Synchro 12 Report
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Lanes, Volumes, Timings
1: Renwick Road & Weber Road

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)	1652			575			963			1090		
Turn Bay Length (ft)	255			250		385	244			255		260
Base Capacity (vph)	473	873		245	816	471	277	2189		313	2564	1052
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.61	0.60		0.31	0.35	0.24	0.25	0.47		0.61	0.30	0.12

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay (s/veh): 34.9

Intersection LOS: C

Intersection Capacity Utilization 61.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: Renwick Road & Weber Road

	Ø1		Ø2 (R)		Ø3		Ø4
15 s		60 s		15 s		35 s	
	Ø5		Ø6 (R)		Ø7		Ø8
15 s		60 s		15 s		35 s	

Lanes, Volumes, Timings
5: Weber Road & Ryan Drive

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔		↔		↔↔↔		↔	↔↔↔	
Traffic Volume (vph)	0	0	0	56	0	43	0	972	98	43	814	0
Future Volume (vph)	0	0	0	56	0	43	0	972	98	43	814	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	315		0
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			125		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.91	0.91
Frt						0.850		0.986				
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1900	0	1805	0	1615	0	4809	0	1805	4940	0
Flt Permitted				0.950						0.225		
Satd. Flow (perm)	0	1900	0	1805	0	1615	0	4809	0	428	4940	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91		25				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		487			155			1028			1043	
Travel Time (s)		11.1			3.5			15.6			15.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	7%	0%	0%	5%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	60	0	46	0	1138	0	46	866	0
Turn Type				Prot		Prot		NA		pm+pt	NA	
Protected Phases		4		3		3		2		1	6	
Permitted Phases	4						2			6		
Detector Phase	4	4		3		3	2	2		1	6	
Switch Phase												
Minimum Initial (s)	1.0	1.0		5.0		5.0	15.0	15.0		3.0	15.0	
Minimum Split (s)	7.0	7.0		11.0		11.0	24.0	24.0		11.5	23.0	
Total Split (s)	7.0	7.0		20.0		20.0	108.0	108.0		15.0	123.0	
Total Split (%)	4.7%	4.7%		13.3%		13.3%	72.0%	72.0%		10.0%	82.0%	
Yellow Time (s)	4.5	4.5		4.5		4.5	4.5	4.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5		1.5	1.5	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		0.0	0.0	
Total Lost Time (s)		6.0		6.0		6.0		6.0		3.5	5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None		None	C-Min	C-Min		None	C-Min	
Act Effct Green (s)				10.3		10.3		123.6		132.6	132.1	
Actuated g/C Ratio				0.07		0.07		0.82		0.88	0.88	
v/c Ratio				0.48		0.24		0.29		0.11	0.20	
Control Delay (s/veh)				79.5		2.8		4.2		2.1	1.9	
Queue Delay				0.0		0.0		0.0		0.0	0.0	
Total Delay (s/veh)				79.5		2.8		4.2		2.1	1.9	
LOS				E		A		A		A	A	
Approach Delay (s/veh)					46.2			4.2			1.9	
Approach LOS					D			A			A	
Queue Length 50th (ft)				58		0		95		5	41	
Queue Length 95th (ft)				106		0		130		12	61	

25-380 - Residential Development - Crest Hill
No-Build Weekday Morning Peak Hour

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Lanes, Volumes, Timings
5: Weber Road & Ryan Drive

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)	407			75			948			963		
Turn Bay Length (ft)										315		
Base Capacity (vph)				169			234			3967		
Starvation Cap Reductn				0			0			0		
Spillback Cap Reductn				0			0			0		
Storage Cap Reductn				0			0			0		
Reduced v/c Ratio				0.36			0.20			0.29		

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay (s/veh): 5.3

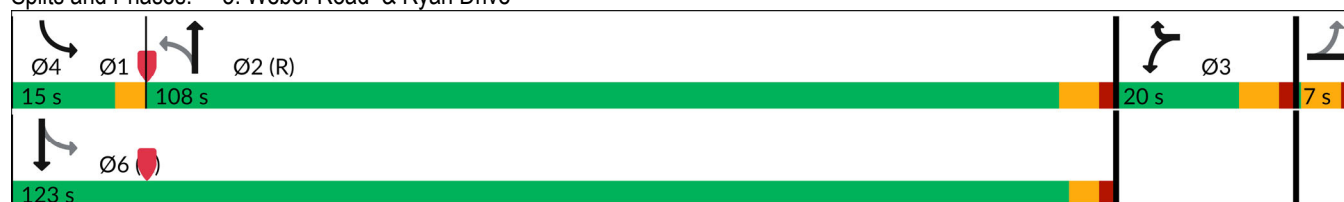
Intersection LOS: A

Intersection Capacity Utilization 46.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Weber Road & Ryan Drive



Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑		↗
Traffic Vol, veh/h	640	44	0	442	0	14
Future Vol, veh/h	640	44	0	442	0	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	7	0	0	11	0	25
Mvmt Flow	674	46	0	465	0	15
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	360
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.6
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	4.15
Pot Cap-1 Maneuver	-	-	0	-	0	496
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	496
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Ctrl Dly, s/v	0		0		12.49	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	496	-	-	-		
HCM Lane V/C Ratio	0.03	-	-	-		
HCM Ctrl Dly (s/v)	12.5	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	-		

Intersection

Int Delay, s/veh 0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	637	17	41	419	22	13
Future Vol, veh/h	637	17	41	419	22	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	285	-	0	25
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	7	0	0	10	0	11
Mvmt Flow	685	18	44	451	24	14

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	703
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	904
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	904
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.82	14.05
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	353	628	-	-	904	-
HCM Lane V/C Ratio	0.067	0.022	-	-	0.049	-
HCM Ctrl Dly (s/v)	15.9	10.9	-	-	9.2	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.2	-

Intersection

Int Delay, s/veh 1

Movement EBT EBR WBL WBT NBL NBRLane Configurations      

Traffic Vol, veh/h 637 14 15 441 19 48

Future Vol, veh/h 637 14 15 441 19 48

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - 240 120 - 0 -

Veh in Median Storage, # 0 - - 0 1 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 93 93 93 93 93 93

Heavy Vehicles, % 7 0 0 12 0 0

Mvmt Flow 685 15 16 474 20 52

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 700 0 1191 685

Stage 1 - - - - 685 -

Stage 2 - - - - 506 -

Critical Hdwy - - 4.1 - 6.4 6.2

Critical Hdwy Stg 1 - - - - 5.4 -

Critical Hdwy Stg 2 - - - - 5.4 -

Follow-up Hdwy - - 2.2 - 3.5 3.3

Pot Cap-1 Maneuver - - 906 - 209 452

Stage 1 - - - - 504 -

Stage 2 - - - - 609 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 906 - 205 452

Mov Cap-2 Maneuver - - - - 342 -

Stage 1 - - - - 504 -

Stage 2 - - - - 598 -

Approach EB WB NB

HCM Ctrl Dly, s/v 0 0.3 15.52

HCM LOS C

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 414 - - 906 -

HCM Lane V/C Ratio 0.174 - - 0.018 -

HCM Ctrl Dly (s/v) 15.5 - - 9 -

HCM Lane LOS C - - A -

HCM 95th %tile Q(veh) 0.6 - - 0.1 -

Intersection

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	131	9	0	100	0	0
Future Vol, veh/h	131	9	0	100	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	196	13	0	149	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 202
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.2
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.3
Pot Cap-1 Maneuver	-	-	0 - 0 844
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 844
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS			A

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

Intersection						
Int Delay, s/veh	7.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	3	0	0	18	0
Future Vol, veh/h	0	3	0	0	18	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	56	56	56	56
Heavy Vehicles, %	0	0	0	0	6	0
Mvmt Flow	0	5	0	0	32	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	5	0	4	3
Stage 1	-	-	-	-	3	-
Stage 2	-	-	-	-	2	-
Critical Hdwy	-	-	4.1	-	6.46	6.2
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	-	-	2.2	-	3.554	3.3
Pot Cap-1 Maneuver	-	-	1629	-	1007	1087
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	1011	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1629	-	1007	1087
Mov Cap-2 Maneuver	-	-	-	-	1007	-
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	1011	-
Approach	EB		WB		NB	
HCM Ctrl Dly, s/v	0		0		8.69	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1007	-	-	1629	-	
HCM Lane V/C Ratio	0.032	-	-	-	-	
HCM Ctrl Dly (s/v)	8.7	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕	↕	↕	↕	
Traffic Vol, veh/h	1	0	7	17	0	24	3	1045	19	19	850	2
Future Vol, veh/h	1	0	7	17	0	24	3	1045	19	19	850	2
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	-	-	-	-	-	-	125	-	85	130	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	9	0	7	12	6	5	0
Mvmt Flow	1	0	7	18	0	25	3	1089	20	20	885	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1477	2041	444	1577	2022	544	888	0	0	1108	0	0
Stage 1	926	926	-	1095	1095	-	-	-	-	-	-	-
Stage 2	551	1115	-	482	927	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	7.08	4.1	-	-	4.22	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.39	2.2	-	-	2.26	-	-
Pot Cap-1 Maneuver	89	57	567	75	59	465	772	-	-	603	-	-
Stage 1	293	350	-	232	292	-	-	-	-	-	-	-
Stage 2	492	286	-	539	350	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	81	55	567	72	57	465	772	-	-	603	-	-
Mov Cap-2 Maneuver	193	160	-	172	168	-	-	-	-	-	-	-
Stage 1	283	339	-	231	291	-	-	-	-	-	-	-
Stage 2	463	285	-	515	338	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	13.04		20.65		0.03		0.24	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	772	-	-	456	273	603	-
HCM Lane V/C Ratio	0.004	-	-	0.018	0.157	0.033	-
HCM Ctrl Dly (s/v)	9.7	-	-	13	20.6	11.2	-
HCM Lane LOS	A	-	-	B	C	B	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.5	0.1	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	37	33	0	0	7
Future Vol, veh/h	0	37	33	0	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	12	7	0	0	0
Mvmt Flow	0	46	41	0	0	9
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	41
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	1035
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	1035
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		8.51		
HCM LOS	A					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	1035		
HCM Lane V/C Ratio	-	-	-	0.008		
HCM Ctrl Dly (s/v)	-	-	-	8.5		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0		

Intersection

Int Delay, s/veh 1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	20	33	1	0	0
Future Vol, veh/h	18	20	33	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	16	6	0	0	0
Mvmt Flow	24	27	45	1	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	46	0	0 121 45
Stage 1	-	-	- 45 -
Stage 2	-	-	- 76 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	1575	-	- 879 1030
Stage 1	-	-	- 982 -
Stage 2	-	-	- 952 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1575	-	- 866 1030
Mov Cap-2 Maneuver	-	-	- 866 -
Stage 1	-	-	- 967 -
Stage 2	-	-	- 952 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	3.47	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	853	-	-	-	-
HCM Lane V/C Ratio	0.015	-	-	-	-
HCM Ctrl Dly (s/v)	7.3	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Capacity Analysis Summary Sheets
Year 2032 No-Build Weekday Evening Peak Hour

Intersection Capacity Utilization

7: Retail Access Drive (east)/N-S Access Road & Ryan Drive

01/13/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	131	9	6	0	5	4	49	1	1	5	9	175
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	146	0	0	9	0	0	51	0	0	189	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.93	0.85	0.95	0.95	0.85	0.95	0.86	0.85
Saturated Flow (vph)	0	1804	0	0	1773	0	0	1803	0	0	1634	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	129		0	1773		0	173		0	1655	
Reference Time A (s)	0.0	135.5		0.0	0.6		0.0	35.3		0.0	13.7	
Adj Saturation B (vph)	0	0		0	1773		NA	NA		0	0	
Reference Time B (s)	16.7	17.7		0.0	0.6		NA	NA		8.3	21.9	
Reference Time (s)	17.7			0.6			35.3			13.7		
Adj Reference Time (s)	21.7			8.0			39.3			17.7		
Split Option												
Ref Time Combined (s)	0.0	9.7		0.0	0.6		0.0	3.4		0.0	13.9	
Ref Time Seperate (s)	8.7	0.6		0.0	0.3		3.3	0.1		0.3	0.7	
Reference Time (s)	9.7	9.7		0.6	0.6		3.4	3.4		13.9	13.9	
Adj Reference Time (s)	13.7	13.7		8.0	8.0		8.0	8.0		17.9	17.9	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	21.7		39.3									
Split Option (s)	21.7		25.9									
Minimum (s)	21.7		25.9		47.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	39.7%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Lanes, Volumes, Timings
1: Renwick Road & Weber Road

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	269	293	79	162	507	154	154	865	63	205	1106	384
Future Volume (vph)	269	293	79	162	507	154	154	865	63	205	1106	384
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Storage Length (ft)	255		0	250		385	244		0	255		260
Storage Lanes	2		0	2		1	2		0	2		1
Taper Length (ft)	260			260			260			255		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	0.97	0.91	0.91	0.97	0.91	1.00
Frt		0.968				0.850		0.990				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3215	0	3019	3725	1538	3367	4905	0	3400	5151	1599
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3215	0	3019	3725	1538	3367	4905	0	3400	5151	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26				65		11				65
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1732			655			1043			1170	
Travel Time (s)		26.2			9.9			15.8			17.7	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	7%	15%	16%	2%	5%	4%	3%	28%	3%	6%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	274	380	0	165	517	157	157	947	0	209	1129	392
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases						8						6
Detector Phase	7	4		3	8	1	5	2		1	6	7
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0	3.0	3.0	15.0		3.0	15.0	3.0
Minimum Split (s)	9.5	22.5		9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	15.0	35.0		15.0	35.0	15.0	15.0	60.0		15.0	60.0	15.0
Total Split (%)	12.0%	28.0%		12.0%	28.0%	12.0%	12.0%	48.0%		12.0%	48.0%	12.0%
Yellow Time (s)	3.5	4.5		3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5		1.0	1.5	1.0	1.0	1.5		1.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0		4.5	6.0	4.5	4.5	6.0		4.5	6.0	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Min		None	C-Min	None
Act Effct Green (s)	16.1	31.3		12.1	27.3	44.5	10.0	49.5		11.1	50.6	72.7
Actuated g/C Ratio	0.13	0.25		0.10	0.22	0.36	0.08	0.40		0.09	0.40	0.58
v/c Ratio	0.62	0.46		0.57	0.64	0.27	0.58	0.49		0.69	0.54	0.41
Control Delay (s/veh)	58.1	38.7		61.2	47.9	17.0	64.5	29.6		67.7	30.4	13.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	58.1	38.7		61.2	47.9	17.0	64.5	29.6		67.7	30.4	13.9
LOS	E	D		E	D	B	E	C		E	C	B
Approach Delay (s/veh)		46.8			44.7			34.6			31.1	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	108	125		67	198	48	63	217		84	263	142
Queue Length 95th (ft)	157	182		101	257	103	101	249		#138	305	216

25-380 - Residential Development - Crest Hill
No-Build Weekday Evening Peak Hour

Synchro 12 Report
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Lanes, Volumes, Timings
1: Renwick Road & Weber Road

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)	1652			575			963			1090		
Turn Bay Length (ft)	255			250		385	244			255		260
Base Capacity (vph)	441	836		301	880	591	286	2166		307	2281	956
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.62	0.45		0.55	0.59	0.27	0.55	0.44		0.68	0.49	0.41

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay (s/veh): 37.0

Intersection LOS: D

Intersection Capacity Utilization 63.2%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Renwick Road & Weber Road

	Ø1		Ø2 (R)		Ø3		Ø4
15 s		60 s		15 s		35 s	
	Ø5		Ø6 (R)		Ø7		Ø8
15 s		60 s		15 s		35 s	

Lanes, Volumes, Timings
5: Weber Road & Ryan Drive

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	120	0	109	0	973	106	89	1257	0
Future Volume (vph)	0	0	0	120	0	109	0	973	106	89	1257	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	315		0
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			125		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.91	0.91
Frt						0.850		0.985				
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1900	0	1805	0	1583	0	4889	0	1805	4803	0
Flt Permitted				0.950						0.211		
Satd. Flow (perm)	0	1900	0	1805	0	1583	0	4889	0	401	4803	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						118		27				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		487			155			1028			1043	
Travel Time (s)		11.1			3.5			15.6			15.8	
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
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	5%	0%	0%	8%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	130	0	118	0	1173	0	97	1366	0
Turn Type				Prot		Prot		NA		pm+pt	NA	
Protected Phases		4		3		3		2		1	6	
Permitted Phases	4						2			6		
Detector Phase	4	4		3		3	2	2		1	6	
Switch Phase												
Minimum Initial (s)	1.0	1.0		5.0		5.0	15.0	15.0		3.0	15.0	
Minimum Split (s)	7.0	7.0		11.0		11.0	24.0	24.0		11.5	23.0	
Total Split (s)	7.0	7.0		20.0		20.0	108.0	108.0		15.0	123.0	
Total Split (%)	4.7%	4.7%		13.3%		13.3%	72.0%	72.0%		10.0%	82.0%	
Yellow Time (s)	4.5	4.5		4.5		4.5	4.5	4.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5		1.5	1.5	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		0.0	0.0	
Total Lost Time (s)		6.0		6.0		6.0		6.0		3.5	5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None		None	C-Min	C-Min		None	C-Min	
Act Effct Green (s)				15.0		15.0		112.6		125.5	124.0	
Actuated g/C Ratio				0.10		0.10		0.75		0.84	0.83	
v/c Ratio				0.72		0.45		0.32		0.24	0.34	
Control Delay (s/veh)				86.8		15.6		6.4		3.7	3.5	
Queue Delay				0.0		0.0		0.0		0.0	0.0	
Total Delay (s/veh)				86.8		15.6		6.4		3.7	3.5	
LOS				F		B		A		A	A	
Approach Delay (s/veh)					52.9			6.4			3.5	
Approach LOS					D			A			A	
Queue Length 50th (ft)				124		0		126		14	105	
Queue Length 95th (ft)				#235		63		137		21	105	

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No-Build Weekday Evening Peak Hour

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Lanes, Volumes, Timings
5: Weber Road & Ryan Drive

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)	407			75			948			963		
Turn Bay Length (ft)										315		
Base Capacity (vph)				188			270			3676		
Starvation Cap Reductn				0			0			0		
Spillback Cap Reductn				0			0			0		
Storage Cap Reductn				0			0			0		
Reduced v/c Ratio				0.69			0.44			0.32		

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay (s/veh): 8.9

Intersection LOS: A

Intersection Capacity Utilization 64.6%

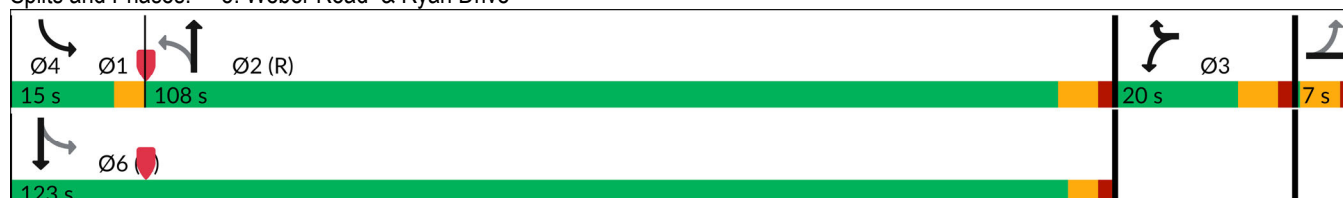
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: Weber Road & Ryan Drive



Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑		↑
Traffic Vol, veh/h	504	57	0	824	0	26
Future Vol, veh/h	504	57	0	824	0	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	8	7	0	6	0	11
Mvmt Flow	542	61	0	886	0	28

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 302
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 7.32
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 4.01
Pot Cap-1 Maneuver	-	-	0 - 0 572
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 572
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	11.61
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	572	-	-	-
HCM Lane V/C Ratio	0.049	-	-	-
HCM Ctrl Dly (s/v)	11.6	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Intersection

Int Delay, s/veh 0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	514	17	42	789	35	23
Future Vol, veh/h	514	17	42	789	35	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	285	-	0	25
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	5	0	0	4	0	0
Mvmt Flow	565	19	46	867	38	25

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	584
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1001
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1001
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.44	14.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	338	721	-	-	1001	-
HCM Lane V/C Ratio	0.114	0.035	-	-	0.046	-
HCM Ctrl Dly (s/v)	17	10.2	-	-	8.8	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	503	33	48	810	21	23
Future Vol, veh/h	503	33	48	810	21	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	240	120	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	9	0	0	5	0	0
Mvmt Flow	541	35	52	871	23	25
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	576	0	1515	541
Stage 1	-	-	-	-	541	-
Stage 2	-	-	-	-	974	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1007	-	133	545
Stage 1	-	-	-	-	588	-
Stage 2	-	-	-	-	369	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1007	-	126	545
Mov Cap-2 Maneuver	-	-	-	-	253	-
Stage 1	-	-	-	-	588	-
Stage 2	-	-	-	-	350	-
Approach	EB	WB		NB		
HCM Ctrl Dly, s/v	0	0.49		16.84		
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	351	-	-	1007	-	
HCM Lane V/C Ratio	0.135	-	-	0.051	-	
HCM Ctrl Dly (s/v)	16.8	-	-	8.8	-	
HCM Lane LOS	C	-	-	A	-	
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-	

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↓			↑↑		↑
Traffic Vol, veh/h	139	56	0	229	0	7
Future Vol, veh/h	139	56	0	229	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	183	74	0	301	0	9

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 220
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.2
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.3
Pot Cap-1 Maneuver	-	-	0 - 0 825
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 825
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	9.41
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	825	-	-	-
HCM Lane V/C Ratio	0.011	-	-	-
HCM Ctrl Dly (s/v)	9.4	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection						
Int Delay, s/veh	3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	16	0	0	9	0
Future Vol, veh/h	0	16	0	0	9	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	11	0
Mvmt Flow	0	21	0	0	12	0
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	21	0	12	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.1	-	6.51	6.2
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	-	-	2.2	-	3.599	3.3
Pot Cap-1 Maneuver	-	-	1608	-	985	1076
Stage 1	-	-	-	-	989	-
Stage 2	-	-	-	-	999	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1608	-	985	1076
Mov Cap-2 Maneuver	-	-	-	-	985	-
Stage 1	-	-	-	-	989	-
Stage 2	-	-	-	-	999	-
Approach	EB	WB		NB		
HCM Ctrl Dly, s/v	0	0		8.7		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	985	-	-	1608	-	
HCM Lane V/C Ratio	0.012	-	-	-	-	
HCM Ctrl Dly (s/v)	8.7	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕	↕	↕	↕	
Traffic Vol, veh/h	2	0	7	30	0	37	10	1040	47	45	1324	9
Future Vol, veh/h	2	0	7	30	0	37	10	1040	47	45	1324	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	-	-	-	-	-	-	125	-	85	130	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	3	0	4	7	2	8	0
Mvmt Flow	2	0	7	32	0	39	11	1106	50	48	1409	10

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2084	2687	709	1928	2641	553	1418	0	0	1156	0	0
Stage 1	1509	1509	-	1128	1128	-	-	-	-	-	-	-
Stage 2	574	1178	-	800	1514	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.96	4.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.33	2.2	-	-	2.22	-	-
Pot Cap-1 Maneuver	31	22	381	41	24	474	487	-	-	600	-	-
Stage 1	129	185	-	221	282	-	-	-	-	-	-	-
Stage 2	476	267	-	349	184	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	26	20	381	36	21	474	487	-	-	600	-	-
Mov Cap-2 Maneuver	90	95	-	131	101	-	-	-	-	-	-	-
Stage 1	118	170	-	216	276	-	-	-	-	-	-	-
Stage 2	427	261	-	315	169	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	21.92		29.23		0.11		0.38	
HCM LOS	C		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	487	-	-	222 219	600	-	-
HCM Lane V/C Ratio	0.022	-	-	0.043 0.326	0.08	-	-
HCM Ctrl Dly (s/v)	12.6	-	-	21.9 29.2	11.5	-	-
HCM Lane LOS	B	-	-	C D	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1 1.4	0.3	-	-

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	92	42	0	0	26
Future Vol, veh/h	0	92	42	0	0	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	5	8	5	0	0	0
Mvmt Flow	0	103	47	0	0	29
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	47
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	1028
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	1028
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		8.61		
HCM LOS	A					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	1028		
HCM Lane V/C Ratio	-	-	-	0.028		
HCM Ctrl Dly (s/v)	-	-	-	8.6		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0.1		

Intersection

Int Delay, s/veh 2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	28	63	34	4	7	7
Future Vol, veh/h	28	63	34	4	7	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	3	3	0	0	14
Mvmt Flow	30	68	37	4	8	8

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	41	0	0 168 39
Stage 1	-	-	- 39 -
Stage 2	-	-	- 129 -
Critical Hdwy	4.1	-	- 6.4 6.34
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.426
Pot Cap-1 Maneuver	1581	-	- 826 999
Stage 1	-	-	- 989 -
Stage 2	-	-	- 902 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1581	-	- 810 999
Mov Cap-2 Maneuver	-	-	- 810 -
Stage 1	-	-	- 969 -
Stage 2	-	-	- 902 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	2.25	0	9.09
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	554	-	-	-	895
HCM Lane V/C Ratio	0.019	-	-	-	0.017
HCM Ctrl Dly (s/v)	7.3	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Capacity Analysis Summary Sheets
Year 2032 Total Projected Weekday Morning Peak Hour

Intersection Capacity Utilization

7: Retail Access Drive (east)/N-S Access Road & Ryan Drive

01/13/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	129	12	4	0	40	7	1	1	0	1	2	103
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	145	0	0	47	0	0	2	0	0	106	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.98	0.85	0.95	0.98	0.85	0.95	0.85	0.85
Saturated Flow (vph)	0	1808	0	0	1858	0	0	1853	0	0	1622	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	130		0	1858		0	249		0	1623	
Reference Time A (s)	0.0	133.5		0.0	3.0		0.0	1.0		0.0	7.8	
Adj Saturation B (vph)	0	0		0	1858		0	0		0	0	
Reference Time B (s)	16.6	17.6		0.0	3.0		8.1	8.1		8.1	15.8	
Reference Time (s)		17.6			3.0			1.0			7.8	
Adj Reference Time (s)		21.6			8.0			8.0			11.8	
Split Option												
Ref Time Combined (s)	0.0	9.6		0.0	3.0		0.0	0.1		0.0	7.8	
Ref Time Seperate (s)	8.6	0.8		0.0	2.6		0.1	0.1		0.1	0.1	
Reference Time (s)	9.6	9.6		3.0	3.0		0.1	0.1		7.8	7.8	
Adj Reference Time (s)	13.6	13.6		8.0	8.0		8.0	8.0		11.8	11.8	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	21.6		11.8									
Split Option (s)	21.6		19.8									
Minimum (s)	21.6		11.8		33.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	27.9%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Lanes, Volumes, Timings
1: Renwick Road & Weber Road

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	  		 	  	
Traffic Volume (vph)	267	428	60	72	269	123	67	891	80	183	732	116
Future Volume (vph)	267	428	60	72	269	123	67	891	80	183	732	116
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Storage Length (ft)	255		0	250		385	244		0	255		260
Storage Lanes	2		0	2		1	2		0	2		1
Taper Length (ft)	260			260			260			255		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	0.97	0.91	0.91	0.97	0.91	1.00
Frt		0.981				0.850		0.988				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3349	0	2870	3519	1357	3303	4805	0	3242	5250	1524
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3349	0	2870	3519	1357	3303	4805	0	3242	5250	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12				65		15				125
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1732			655			1043			1170	
Travel Time (s)		26.2			9.9			15.8			17.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	6%	4%	22%	8%	19%	6%	6%	14%	8%	4%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	287	525	0	77	289	132	72	1044	0	197	787	125
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases						8						6
Detector Phase	7	4		3	8	1	5	2		1	6	7
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0	3.0	3.0	15.0		3.0	15.0	3.0
Minimum Split (s)	9.5	22.5		9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	15.0	35.0		15.0	35.0	15.0	15.0	60.0		15.0	60.0	15.0
Total Split (%)	12.0%	28.0%		12.0%	28.0%	12.0%	12.0%	48.0%		12.0%	48.0%	12.0%
Yellow Time (s)	3.5	4.5		3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5		1.0	1.5	1.0	1.0	1.5		1.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0		4.5	6.0	4.5	4.5	6.0		4.5	6.0	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Min		None	C-Min	None
Act Effct Green (s)	17.0	32.0		8.7	21.6	39.5	8.1	53.6		11.8	59.4	82.4
Actuated g/C Ratio	0.14	0.26		0.07	0.17	0.32	0.06	0.43		0.09	0.48	0.66
v/c Ratio	0.62	0.61		0.39	0.48	0.28	0.34	0.50		0.64	0.32	0.12
Control Delay (s/veh)	57.2	43.4		60.6	48.3	16.7	59.6	27.7		64.6	22.3	2.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	57.2	43.4		60.6	48.3	16.7	59.6	27.7		64.6	22.3	2.3
LOS	E	D		E	D	B	E	C		E	C	A
Approach Delay (s/veh)		48.3			41.9			29.7			27.6	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	113	197		31	112	38	29	223		79	145	0
Queue Length 95th (ft)	162	246		56	146	84	53	284		#132	204	27

25-380 - Residential Development - Crest Hill
Projected Weekday Morning Peak Hour

Synchro 12 Report
Page 1

Lanes, Volumes, Timings
1: Renwick Road & Weber Road

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)	1652			575			963			1090		
Turn Bay Length (ft)	255			250		385	244			255		260
Base Capacity (vph)	465	875		245	816	475	277	2187		312	2560	1046
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.62	0.60		0.31	0.35	0.28	0.26	0.48		0.63	0.31	0.12

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay (s/veh): 35.0

Intersection LOS: D

Intersection Capacity Utilization 61.8%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Renwick Road & Weber Road

	Ø1		Ø2 (R)		Ø3		Ø4
15 s		60 s		15 s		35 s	
	Ø5		Ø6 (R)		Ø7		Ø8
15 s		60 s		15 s		35 s	

Lanes, Volumes, Timings
5: Weber Road & Ryan Drive

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	79	0	65	0	972	105	50	814	0
Future Volume (vph)	0	0	0	79	0	65	0	972	105	50	814	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	315		0
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			125		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.91	0.91
Frt						0.850		0.985				
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1900	0	1805	0	1615	0	4806	0	1805	4940	0
Flt Permitted				0.950						0.221		
Satd. Flow (perm)	0	1900	0	1805	0	1615	0	4806	0	420	4940	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91		27				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		487			155			1028			1043	
Travel Time (s)		11.1			3.5			15.6			15.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	7%	0%	0%	5%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	84	0	69	0	1146	0	53	866	0
Turn Type				Prot		Prot		NA		pm+pt	NA	
Protected Phases		4		3		3		2		1	6	
Permitted Phases	4						2			6		
Detector Phase	4	4		3		3	2	2		1	6	
Switch Phase												
Minimum Initial (s)	1.0	1.0		5.0		5.0	15.0	15.0		3.0	15.0	
Minimum Split (s)	7.0	7.0		11.0		11.0	24.0	24.0		11.5	23.0	
Total Split (s)	7.0	7.0		20.0		20.0	108.0	108.0		15.0	123.0	
Total Split (%)	4.7%	4.7%		13.3%		13.3%	72.0%	72.0%		10.0%	82.0%	
Yellow Time (s)	4.5	4.5		4.5		4.5	4.5	4.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5		1.5	1.5	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		0.0	0.0	
Total Lost Time (s)		6.0		6.0		6.0		6.0		3.5	5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None		None	C-Min	C-Min		None	C-Min	
Act Effct Green (s)				12.3		12.3		117.9		128.2	126.7	
Actuated g/C Ratio				0.08		0.08		0.79		0.85	0.84	
v/c Ratio				0.57		0.32		0.30		0.13	0.21	
Control Delay (s/veh)				80.6		9.1		5.1		2.6	2.5	
Queue Delay				0.0		0.0		0.0		0.0	0.0	
Total Delay (s/veh)				80.6		9.1		5.1		2.6	2.5	
LOS				F		A		A		A	A	
Approach Delay (s/veh)					48.4			5.1			2.5	
Approach LOS					D			A			A	
Queue Length 50th (ft)				81		0		104		6	46	
Queue Length 95th (ft)				136		28		144		15	69	

Lanes, Volumes, Timings
5: Weber Road & Ryan Drive

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)	407			75			948			963		
Turn Bay Length (ft)										315		
Base Capacity (vph)				176			239			3781		
Starvation Cap Reductn				0			0			0		
Spillback Cap Reductn				0			0			0		
Storage Cap Reductn				0			0			0		
Reduced v/c Ratio				0.48			0.29			0.30		

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay (s/veh): 7.0

Intersection LOS: A

Intersection Capacity Utilization 53.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Weber Road & Ryan Drive



Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑		↑
Traffic Vol, veh/h	641	50	0	464	0	20
Future Vol, veh/h	641	50	0	464	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	7	0	0	11	0	25
Mvmt Flow	675	53	0	488	0	21
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	364
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.6
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	4.15
Pot Cap-1 Maneuver	-	-	0	-	0	493
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	493
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Ctrl Dly, s/v	0	0		12.63		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	493	-	-	-		
HCM Lane V/C Ratio	0.043	-	-	-		
HCM Ctrl Dly (s/v)	12.6	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	-		

Intersection

Int Delay, s/veh 1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	643	18	45	419	44	19
Future Vol, veh/h	643	18	45	419	44	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	285	-	0	25
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	7	0	0	10	0	11
Mvmt Flow	691	19	48	451	47	20

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	711
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	898
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	898
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.9	15.15
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	348	625	-	-	898	-
HCM Lane V/C Ratio	0.136	0.033	-	-	0.054	-
HCM Ctrl Dly (s/v)	17	11	-	-	9.2	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0.2	-

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	649	14	15	445	19	48
Future Vol, veh/h	649	14	15	445	19	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	240	120	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	7	0	0	12	0	0
Mvmt Flow	698	15	16	478	20	52
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	713	0	1209	698
Stage 1	-	-	-	-	698	-
Stage 2	-	-	-	-	511	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	896	-	204	444
Stage 1	-	-	-	-	497	-
Stage 2	-	-	-	-	607	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	896	-	200	444
Mov Cap-2 Maneuver	-	-	-	-	338	-
Stage 1	-	-	-	-	497	-
Stage 2	-	-	-	-	596	-
Approach	EB	WB		NB		
HCM Ctrl Dly, s/v	0	0.3		15.72		
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	408	-	-	896	-	
HCM Lane V/C Ratio	0.177	-	-	0.018	-	
HCM Ctrl Dly (s/v)	15.7	-	-	9.1	-	
HCM Lane LOS	C	-	-	A	-	
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-	

Intersection

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	145	9	0	145	0	0
Future Vol, veh/h	145	9	0	145	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	216	13	0	216	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 223
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.2
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.3
Pot Cap-1 Maneuver	-	-	0 - 0 821
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 821
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS			A

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

Intersection												
Int Delay, s/veh	4.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	3	0	15	0	18	0	0	0	0	15
Future Vol, veh/h	5	5	3	0	15	0	18	0	0	0	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	56	56	56	56	92	56	92	56	92	92	92
Heavy Vehicles, %	2	0	0	0	0	2	6	2	0	2	2	2
Mvmt Flow	5	9	5	0	27	0	32	0	0	0	0	16
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	27	0	0	14	0	0	49	49	12	47	52	27
Stage 1	-	-	-	-	-	-	22	22	-	27	27	-
Stage 2	-	-	-	-	-	-	27	27	-	20	25	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.16	6.52	6.2	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.554	4.018	3.3	3.518	4.018	3.318
Pot Cap-1 Maneuver	1587	-	-	1617	-	-	941	842	1075	955	839	1049
Stage 1	-	-	-	-	-	-	986	877	-	991	873	-
Stage 2	-	-	-	-	-	-	980	873	-	999	874	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1587	-	-	1617	-	-	923	839	1075	951	836	1049
Mov Cap-2 Maneuver	-	-	-	-	-	-	923	839	-	951	836	-
Stage 1	-	-	-	-	-	-	982	873	-	991	873	-
Stage 2	-	-	-	-	-	-	965	873	-	996	871	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	2.01			0			9.04			8.49		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	923	461	-	-	1617	-	-	1049				
HCM Lane V/C Ratio	0.035	0.003	-	-	-	-	-	0.016				
HCM Ctrl Dly (s/v)	9	7.3	0	-	0	-	-	8.5				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0				

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕	↕	↕	↕	
Traffic Vol, veh/h	1	0	7	17	0	24	3	1052	19	19	873	2
Future Vol, veh/h	1	0	7	17	0	24	3	1052	19	19	873	2
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	-	-	-	-	-	-	125	-	85	130	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	9	0	7	12	6	5	0
Mvmt Flow	1	0	7	18	0	25	3	1096	20	20	909	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1504	2072	456	1596	2053	548	911	0	0	1116	0	0
Stage 1	950	950	-	1102	1102	-	-	-	-	-	-	-
Stage 2	554	1122	-	494	951	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	7.08	4.1	-	-	4.22	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.39	2.2	-	-	2.26	-	-
Pot Cap-1 Maneuver	85	55	557	73	56	463	756	-	-	599	-	-
Stage 1	283	341	-	229	290	-	-	-	-	-	-	-
Stage 2	489	284	-	531	341	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	78	53	557	69	54	463	756	-	-	599	-	-
Mov Cap-2 Maneuver	187	157	-	169	164	-	-	-	-	-	-	-
Stage 1	274	330	-	228	289	-	-	-	-	-	-	-
Stage 2	461	282	-	506	330	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	13.21		20.87		0.03		0.24	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	756	-	-	447	269	599	-
HCM Lane V/C Ratio	0.004	-	-	0.019	0.159	0.033	-
HCM Ctrl Dly (s/v)	9.8	-	-	13.2	20.9	11.2	-
HCM Lane LOS	A	-	-	B	C	B	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.6	0.1	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	37	33	0	0	7
Future Vol, veh/h	0	37	33	0	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	12	7	0	0	0
Mvmt Flow	0	46	41	0	0	9
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	-	0	-	0	-	41
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	1035
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	1035
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		8.51		
HCM LOS	A					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	1035		
HCM Lane V/C Ratio	-	-	-	0.008		
HCM Ctrl Dly (s/v)	-	-	-	8.5		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0		

Intersection

Int Delay, s/veh 1.8

Movement EBL EBT WBT WBR SBL SBRLane Configurations 

Traffic Vol, veh/h 18 20 33 1 0 0

Future Vol, veh/h 18 20 33 1 0 0

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

Veh in Median Storage, # - 0 0 - 0 -

Grade, % - 0 0 - 0 -

Peak Hour Factor 74 74 74 74 74 74

Heavy Vehicles, % 0 16 6 0 0 0

Mvmt Flow 24 27 45 1 0 0

Major/Minor Major1 Major2 Minor2

Conflicting Flow All 46 0 - 0 121 45

Stage 1 - - - - 45 -

Stage 2 - - - - 76 -

Critical Hdwy 4.1 - - - 6.4 6.2

Critical Hdwy Stg 1 - - - - 5.4 -

Critical Hdwy Stg 2 - - - - 5.4 -

Follow-up Hdwy 2.2 - - - 3.5 3.3

Pot Cap-1 Maneuver 1575 - - - 879 1030

Stage 1 - - - - 982 -

Stage 2 - - - - 952 -

Platoon blocked, % - - - -

Mov Cap-1 Maneuver 1575 - - - 866 1030

Mov Cap-2 Maneuver - - - - 866 -

Stage 1 - - - - 967 -

Stage 2 - - - - 952 -

Approach EB WB SB

HCM Ctrl Dly, s/v 3.47 0 0

HCM LOS A

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h) 853 - - - -

HCM Lane V/C Ratio 0.015 - - - -

HCM Ctrl Dly (s/v) 7.3 0 - - 0

HCM Lane LOS A A - - A

HCM 95th %tile Q(veh) 0 - - - -

Capacity Analysis Summary Sheets
Year 2032 Total Projected Weekday Evening Peak Hour

Intersection Capacity Utilization

7: Retail Access Drive (east)/N-S Access Road & Ryan Drive

01/13/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	146	41	6	0	24	4	49	1	1	5	9	185
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	193	0	0	28	0	0	51	0	0	199	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.96	0.85	0.95	0.98	0.85	0.95	0.95	0.85	0.95	0.86	0.85
Saturated Flow (vph)	0	1820	0	0	1859	0	0	1803	0	0	1633	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	148		0	1859		0	171		0	1653	
Reference Time A (s)	0.0	156.6		0.0	1.8		0.0	35.9		0.0	14.4	
Adj Saturation B (vph)	0	0		0	1859		NA	NA		0	0	
Reference Time B (s)	17.7	20.7		0.0	1.8		NA	NA		8.3	22.6	
Reference Time (s)	20.7			1.8			35.9			14.4		
Adj Reference Time (s)	24.7			8.0			39.9			18.4		
Split Option												
Ref Time Combined (s)	0.0	12.7		0.0	1.8		0.0	3.4		0.0	14.6	
Ref Time Seperate (s)	9.7	2.6		0.0	1.5		3.3	0.1		0.3	0.7	
Reference Time (s)	12.7	12.7		1.8	1.8		3.4	3.4		14.6	14.6	
Adj Reference Time (s)	16.7	16.7		8.0	8.0		8.0	8.0		18.6	18.6	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	24.7		39.9									
Split Option (s)	24.7		26.6									
Minimum (s)	24.7		26.6		51.4							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	42.8%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Lanes, Volumes, Timings
1: Renwick Road & Weber Road

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	269	298	82	162	509	165	157	877	63	223	1125	384
Future Volume (vph)	269	298	82	162	509	165	157	877	63	223	1125	384
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Storage Length (ft)	255		0	250		385	244		0	255		260
Storage Lanes	2		0	2		1	2		0	2		1
Taper Length (ft)	260			260			260			255		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	0.97	0.91	0.91	0.97	0.91	1.00
Frt		0.968				0.850		0.990				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3214	0	3019	3725	1538	3367	4906	0	3400	5151	1599
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3214	0	3019	3725	1538	3367	4906	0	3400	5151	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26				65		11				65
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1732			655			1043			1170	
Travel Time (s)		26.2			9.9			15.8			17.7	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	7%	15%	16%	2%	5%	4%	3%	28%	3%	6%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	274	388	0	165	519	168	160	959	0	228	1148	392
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases						8						6
Detector Phase	7	4		3	8	1	5	2		1	6	7
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0	3.0	3.0	15.0		3.0	15.0	3.0
Minimum Split (s)	9.5	22.5		9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	15.0	35.0		15.0	35.0	15.0	15.0	60.0		15.0	60.0	15.0
Total Split (%)	12.0%	28.0%		12.0%	28.0%	12.0%	12.0%	48.0%		12.0%	48.0%	12.0%
Yellow Time (s)	3.5	4.5		3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5		1.0	1.5	1.0	1.0	1.5		1.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0		4.5	6.0	4.5	4.5	6.0		4.5	6.0	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Min		None	C-Min	None
Act Effct Green (s)	15.8	31.2		11.9	27.3	44.9	10.1	49.2		11.6	50.8	72.6
Actuated g/C Ratio	0.13	0.25		0.10	0.22	0.36	0.08	0.39		0.09	0.41	0.58
v/c Ratio	0.63	0.47		0.57	0.64	0.28	0.59	0.49		0.72	0.55	0.41
Control Delay (s/veh)	58.8	39.1		61.8	47.9	17.9	64.8	29.8		68.8	30.3	13.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	58.8	39.1		61.8	47.9	17.9	64.8	29.8		68.8	30.3	13.9
LOS	E	D		E	D	B	E	C		E	C	B
Approach Delay (s/veh)		47.2			44.7			34.8			31.6	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	108	128		67	199	54	64	223		91	269	143
Queue Length 95th (ft)	158	186		102	258	112	102	249		#157	306	216

25-380 - Residential Development - Crest Hill
Projected Weekday Evening Peak Hour

Synchro 12 Report
Page 1

Lanes, Volumes, Timings
1: Renwick Road & Weber Road

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)	1652			575			963			1090		
Turn Bay Length (ft)	255			250		385	244			255		260
Base Capacity (vph)	435	834		297	879	595	286	2160		317	2280	956
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.63	0.47		0.56	0.59	0.28	0.56	0.44		0.72	0.50	0.41

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay (s/veh): 37.3

Intersection LOS: D

Intersection Capacity Utilization 63.7%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Renwick Road & Weber Road

	Ø1		Ø2 (R)		Ø3		Ø4
15 s		60 s		15 s		35 s	
	Ø5		Ø6 (R)		Ø7		Ø8
15 s		60 s		15 s		35 s	

Lanes, Volumes, Timings
5: Weber Road & Ryan Drive

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	134	0	124	0	973	131	111	1257	0
Future Volume (vph)	0	0	0	134	0	124	0	973	131	111	1257	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	315		0
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			125		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.91	0.91
Frt						0.850		0.982				
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1900	0	1805	0	1583	0	4879	0	1805	4803	0
Flt Permitted				0.950						0.203		
Satd. Flow (perm)	0	1900	0	1805	0	1583	0	4879	0	386	4803	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						135		36				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		487			155			1028			1043	
Travel Time (s)		11.1			3.5			15.6			15.8	
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
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	5%	0%	0%	8%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	146	0	135	0	1200	0	121	1366	0
Turn Type				Prot		Prot		NA		pm+pt	NA	
Protected Phases		4		3		3		2		1	6	
Permitted Phases	4						2			6		
Detector Phase	4	4		3		3	2	2		1	6	
Switch Phase												
Minimum Initial (s)	1.0	1.0		5.0		5.0	15.0	15.0		3.0	15.0	
Minimum Split (s)	7.0	7.0		11.0		11.0	24.0	24.0		11.5	23.0	
Total Split (s)	7.0	7.0		20.0		20.0	108.0	108.0		15.0	123.0	
Total Split (%)	4.7%	4.7%		13.3%		13.3%	72.0%	72.0%		10.0%	82.0%	
Yellow Time (s)	4.5	4.5		4.5		4.5	4.5	4.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5		1.5	1.5	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		0.0	0.0	
Total Lost Time (s)		6.0		6.0		6.0		6.0		3.5	5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None		None	C-Min	C-Min		None	C-Min	
Act Effct Green (s)				16.7		16.7		110.4		123.8	122.3	
Actuated g/C Ratio				0.11		0.11		0.74		0.83	0.82	
v/c Ratio				0.73		0.46		0.33		0.31	0.35	
Control Delay (s/veh)				84.3		14.5		7.1		4.7	3.9	
Queue Delay				0.0		0.0		0.0		0.0	0.0	
Total Delay (s/veh)				84.3		14.5		7.1		4.7	3.9	
LOS				F		B		A		A	A	
Approach Delay (s/veh)					50.8			7.1			4.0	
Approach LOS					D			A			A	
Queue Length 50th (ft)				138		0		141		20	116	
Queue Length 95th (ft)				#273		67		142		26	105	

Lanes, Volumes, Timings
5: Weber Road & Ryan Drive

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)	407			75			948			963		
Turn Bay Length (ft)										315		
Base Capacity (vph)				203			298			3601		
Starvation Cap Reductn				0			0			0		
Spillback Cap Reductn				0			0			0		
Storage Cap Reductn				0			0			0		
Reduced v/c Ratio				0.72			0.45			0.33		

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay (s/veh): 9.7

Intersection LOS: A

Intersection Capacity Utilization 65.9%

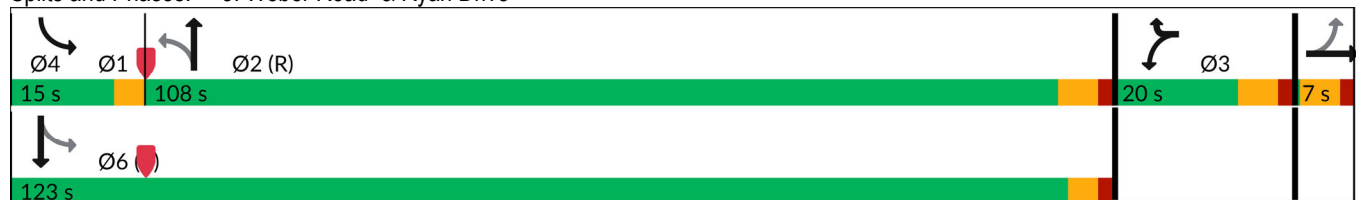
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: Weber Road & Ryan Drive



Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑		↑
Traffic Vol, veh/h	509	75	0	837	0	30
Future Vol, veh/h	509	75	0	837	0	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	8	7	0	6	0	11
Mvmt Flow	547	81	0	900	0	32

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 314
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 7.32
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 4.01
Pot Cap-1 Maneuver	-	-	0 - 0 562
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 562
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	562	-	-	-
HCM Lane V/C Ratio	0.057	-	-	-
HCM Ctrl Dly (s/v)	11.8	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Intersection

Int Delay, s/veh 1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	518	22	54	789	48	27
Future Vol, veh/h	518	22	54	789	48	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	285	-	0	25
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	5	0	0	4	0	0
Mvmt Flow	569	24	59	867	53	30

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	593
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	993
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	993
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.57	15.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	326	718	-	-	993	-
HCM Lane V/C Ratio	0.162	0.041	-	-	0.06	-
HCM Ctrl Dly (s/v)	18.1	10.2	-	-	8.9	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0.2	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘↗	
Traffic Vol, veh/h	511	33	48	822	21	23
Future Vol, veh/h	511	33	48	822	21	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	240	120	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	9	0	0	5	0	0
Mvmt Flow	549	35	52	884	23	25
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	585	0	1537	549
Stage 1	-	-	-	-	549	-
Stage 2	-	-	-	-	987	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1000	-	129	539
Stage 1	-	-	-	-	582	-
Stage 2	-	-	-	-	364	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1000	-	122	539
Mov Cap-2 Maneuver	-	-	-	-	249	-
Stage 1	-	-	-	-	582	-
Stage 2	-	-	-	-	345	-
Approach	EB		WB		NB	
HCM Ctrl Dly, s/v	0		0.49		17.04	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	346	-	-	1000	-	
HCM Lane V/C Ratio	0.137	-	-	0.052	-	
HCM Ctrl Dly (s/v)	17	-	-	8.8	-	
HCM Lane LOS	C	-	-	A	-	
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-	

Intersection

Int Delay, s/veh 0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	186	56	0	258	0	7
Future Vol, veh/h	186	56	0	258	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	245	74	0	339	0	9

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 282
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.2
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.3
Pot Cap-1 Maneuver	-	-	0 - 0 762
Stage 1	-	-	0 - 0 -
Stage 2	-	-	0 - 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 762
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	9.78
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	762	-	-	-
HCM Lane V/C Ratio	0.012	-	-	-
HCM Ctrl Dly (s/v)	9.8	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	16	16	16	0	10	0	9	0	0	0	0	9
Future Vol, veh/h	16	16	16	0	10	0	9	0	0	0	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	75	75	75	75	92	75	92	75	92	92	92
Heavy Vehicles, %	2	0	0	0	0	2	11	2	0	2	2	2
Mvmt Flow	17	21	21	0	13	0	12	0	0	0	0	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	13	0	0	43	0	0	80	80	32	69	91	13
Stage 1	-	-	-	-	-	-	67	67	-	13	13	-
Stage 2	-	-	-	-	-	-	13	13	-	56	77	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.21	6.52	6.2	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.21	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.21	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.599	4.018	3.3	3.518	4.018	3.318
Pot Cap-1 Maneuver	1605	-	-	1579	-	-	887	810	1048	923	799	1067
Stage 1	-	-	-	-	-	-	922	839	-	1007	884	-
Stage 2	-	-	-	-	-	-	984	884	-	956	831	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1605	-	-	1579	-	-	869	801	1048	912	790	1067
Mov Cap-2 Maneuver	-	-	-	-	-	-	869	801	-	912	790	-
Stage 1	-	-	-	-	-	-	911	830	-	1007	884	-
Stage 2	-	-	-	-	-	-	975	884	-	945	821	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	2.1			0			9.2			8.41		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	869	474	-	-	1579	-	-	1067				
HCM Lane V/C Ratio	0.014	0.011	-	-	-	-	-	0.009				
HCM Ctrl Dly (s/v)	9.2	7.3	0	-	0	-	-	8.4				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕	↕	↕	↕	
Traffic Vol, veh/h	2	0	7	30	0	37	10	1065	47	45	1338	9
Future Vol, veh/h	2	0	7	30	0	37	10	1065	47	45	1338	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	-	-	-	-	-	-	125	-	85	130	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	3	0	4	7	2	8	0
Mvmt Flow	2	0	7	32	0	39	11	1133	50	48	1423	10

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2112	2728	716	1962	2683	566	1433	0	0	1183	0	0
Stage 1	1524	1524	-	1154	1154	-	-	-	-	-	-	-
Stage 2	588	1204	-	807	1529	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.96	4.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.33	2.2	-	-	2.22	-	-
Pot Cap-1 Maneuver	30	21	377	39	22	465	480	-	-	586	-	-
Stage 1	126	182	-	213	274	-	-	-	-	-	-	-
Stage 2	467	259	-	346	181	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	24	19	377	34	20	465	480	-	-	586	-	-
Mov Cap-2 Maneuver	88	93	-	127	98	-	-	-	-	-	-	-
Stage 1	116	167	-	208	268	-	-	-	-	-	-	-
Stage 2	418	254	-	311	166	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	22.26		30.28		0.11		0.38	
HCM LOS	C		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	480	-	-	218 212	586	-	-
HCM Lane V/C Ratio	0.022	-	-	0.044 0.336	0.082	-	-
HCM Ctrl Dly (s/v)	12.7	-	-	22.3 30.3	11.7	-	-
HCM Lane LOS	B	-	-	C D	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1 1.4	0.3	-	-

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	92	42	0	0	26
Future Vol, veh/h	0	92	42	0	0	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	5	8	5	0	0	0
Mvmt Flow	0	103	47	0	0	29
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	-	0	-	0	-	47
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	1028
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	1028
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0	0		8.61		
HCM LOS	A					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	1028		
HCM Lane V/C Ratio	-	-	-	0.028		
HCM Ctrl Dly (s/v)	-	-	-	8.6		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0.1		

Intersection

Int Delay, s/veh 2.3

Movement EBL EBT WBT WBR SBL SBRLane Configurations 

Traffic Vol, veh/h 28 63 34 4 7 7

Future Vol, veh/h 28 63 34 4 7 7

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

Veh in Median Storage, # - 0 0 - 0 -

Grade, % - 0 0 - 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 0 3 3 0 0 14

Mvmt Flow 30 68 37 4 8 8

Major/Minor Major1 Major2 Minor2

Conflicting Flow All 41 0 - 0 168 39

Stage 1 - - - - 39 -

Stage 2 - - - - 129 -

Critical Hdwy 4.1 - - - 6.4 6.34

Critical Hdwy Stg 1 - - - - 5.4 -

Critical Hdwy Stg 2 - - - - 5.4 -

Follow-up Hdwy 2.2 - - - 3.5 3.426

Pot Cap-1 Maneuver 1581 - - - 826 999

Stage 1 - - - - 989 -

Stage 2 - - - - 902 -

Platoon blocked, % - - - -

Mov Cap-1 Maneuver 1581 - - - 810 999

Mov Cap-2 Maneuver - - - - 810 -

Stage 1 - - - - 969 -

Stage 2 - - - - 902 -

Approach EB WB SB

HCM Ctrl Dly, s/v 2.25 0 9.09

HCM LOS A

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h) 554 - - - 895

HCM Lane V/C Ratio 0.019 - - - 0.017

HCM Ctrl Dly (s/v) 7.3 0 - - 9.1

HCM Lane LOS A A - - A

HCM 95th %tile Q(veh) 0.1 - - - 0.1