TATHAM ENGINEERING

Enhancing our communities



163 & 164 Edward Street East, Creemore

TRANSPORTATION IMPACT STUDY

Lamb Creemore Inc.

File 419453 | September 9, 2026

Document Control

File:

419453

Date:

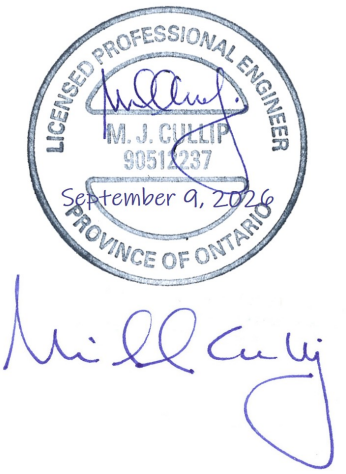
September 9, 2026

Prepared by:

Tatham Engineering Limited
645 Veterans Drive, Unit D
Barrie, Ontario L4N 9H8
T 705-733-9037
tathameng.com

Prepared for:

Lamb Creemore Inc.
778 King Street
Toronto, Ontario M5V 1N6

Authored by:	Reviewed by:
	
Hassan Naeem, M.Sc., P.Eng. Transportation Planner	Michael Cullip B.Eng. & Mgmt., M.Eng., P.Eng. Vice President

Disclaimer	Copyright
The information contained in this document is solely for the use of the Client identified on the cover sheet for the purpose for which it has been prepared and Tatham Engineering Limited undertakes no duty to or accepts any responsibility to any third party who may rely upon this document.	This document may not be used for any purpose other than that provided in the contract between the Owner/Client and the Engineer nor may any section or element of this document be removed, reproduced, electronically stored or transmitted in any form without the express written consent of Tatham Engineering Limited.

Issue	Date	Description
1	September 9, 2026	Final Report

Document Contents

1 Introduction 1

1.1 Report Objective 1

1.2 Report Structure 1

2 Existing Conditions 2

2.1 Road Network 2

2.2 Active Transportation 4

2.3 Traffic Volumes 4

2.4 Traffic Operations 5

2.5 Road Network Improvements 7

3 Future Background Conditions 8

3.1 Road Network 8

3.2 Traffic Volumes 8

3.3 Traffic Operations 11

3.4 Road Network Improvements 16

4 Proposed Development 17

4.1 Location 17

4.2 Land-use & Phasing 17

4.3 Access 18

4.4 Site Traffic 19

5 Future Total Conditions 23

5.1 Traffic Volumes 23

5.2 Traffic Operations 23

5.3 Road Network Improvements 29

6 Summary 32

6.1 Proposed Development 32

6.2 Traffic Operations 32

Tables

Table 1: Road Network 3
Table 2: Key Intersections 3
Table 3: Traffic Counts 4
Table 4: County Road Seasonal Traffic Volumes – 2024 5
Table 5: Intersection Operations – 2026 6
Table 6: Historical Population Growth 8
Table 7: Historical AADT Volumes 9
Table 8: Intersection Operations – 2031 Background 12
Table 9: Intersection Operations – 2036 Background 13
Table 10: Intersection Operations – 2041 Background 14
Table 11: Intersection Operations – 2046 Background 15
Table 12: Land Use 17
Table 13: Sight Line Assessment 18
Table 14: Trip Rates – 163 & 164 Edward Street East 19
Table 15: Trip Estimates – 163 & 164 Edward Street East 20
Table 16: Intersection Operations – 2031 Total 24
Table 17: Intersection Operations – 2036 Total 25
Table 18: Intersection Operations – 2036 Total (with improvements) 26
Table 19: Intersection Operations – 2041 Total 26
Table 20: Intersection Operations – 2041 Total (with improvements) 28
Table 21: Intersection Operations – 2046 Total 28

Figures

Figure 1: Site Location 34
Figure 2: Area Road Network 35
Figure 3: Study Area Intersections 36
Figure 4: Active Transportation Network - Sidewalks 37
Figure 5: Traffic Counts 38
Figure 6: Traffic Volumes – 2026 39
Figure 7: Background Developments 40

Figure 8: Traffic Volumes – Zeng Development (Background) 41
Figure 9: Traffic Volumes – Tribute Development (Background) 42
Figure 10: Traffic Volumes – 7582 County Road 9 (Background) 43
Figure 11: Traffic Volumes – 2031 Background 44
Figure 12: Traffic Volumes – 2036 Background 45
Figure 13: Traffic Volumes – 2041 Background 46
Figure 14: Traffic Volumes – 2046 Background 47
Figure 15: Site Plan 48
Figure 16: Sightline Assessment 49
Figure 17: Site Traffic - Residential 51
Figure 18: Site Traffic – Commercial 52
Figure 19: Site Traffic – Total 53
Figure 20: Traffic Volumes – 2031 Total 54
Figure 21: Traffic Volumes – 2036 Total 55
Figure 22: Traffic Volumes – 2041 Total 56
Figure 23: Traffic Volumes – 2046 Total 57

Appendices

Appendix A: Traffic Counts
Appendix B: LOS Definitions
Appendix C: Existing Condition
Appendix D: Future Background Conditions
Appendix E: Future Total Conditions
Appendix F: Traffic Signal Warrant
Appendix G: Left Turn Lane Nomographs

1 Introduction

Tatham Engineering Limited has been retained by Lamb Creemore Inc. to conduct a transportation impact assessment in support of concurrent Official Plan Amendment and Zoning By-law Amendment applications for a proposed mixed-use development to be located at 163 and 164 Edward Street in the community of Creemore, Township of Clearview. The location of the development site is illustrated in Figure 1.

1.1 REPORT OBJECTIVE

The objective of this report is to present the findings of the transportation impact assessment and to address the requirements of the Township with respect to the potential impacts of the development on the area road network. Based on the size and anticipated trip generation of the development, the scope of the assessment considers the following:

- the operations of the study area road system prior to the proposed development;
- the growth in the traffic volumes not otherwise attributed to the development (i.e. from overall growth in the area and/or other developments);
- the number of new trips the proposed development is likely to generate;
- the operations of the study area road system upon completion of the development; and
- the resulting impacts and need for mitigating measures (if required) to ensure acceptable overall road operations.

1.2 REPORT STRUCTURE

The report is structured as follows:

- Chapter 1: introduction and study purpose;
- Chapter 2: existing conditions, detailing the road system and corresponding traffic operations;
- Chapter 3: future conditions, prior to the completion of the proposed development (referred to as future background conditions), the expected growth in traffic levels and the resulting operating conditions;
- Chapter 4: proposed development and associated details including land use, access, and traffic volumes;
- Chapter 5: future conditions, with completion of the proposed development (referred to as future total conditions);
- Chapter 6: summary of the report and key findings.

2 Existing Conditions

This chapter will describe the road network, traffic volumes and operations for the existing conditions.

2.1 ROAD NETWORK

The road network to be addressed by this study consists of the following roads and intersections:

Roads

- County Road 9
- Country Road 42
- George Street
- Concession Street
- Edward Street East
- Mary Street

Intersections

- County Road 9 & County Road 42
- County Road 9, Mary Street & Jardine Crescent
- County Road 42 & Edward Street East
- George Street & Concession 3
- George Street & Mary Street
- Edward Street East & Mary Street

Aerial mapping and photographs of the road system are provided Figure 2 and Figure 3, respectively.

2.1.1 Roads

A brief description of the road network is provided in Table 1. The functional classification for each road is based on that provided in the *Official Plan of the Township of Clearview*[1] (for Township roads) and the *County of Simcoe Official Plan*[2] (for County roads).

The roadway cross-sections within the study area vary considerably, reflecting the transition between the established village core and the surrounding rural area.

- Specifically, from north to south, Mary Street transitions from an urban cross-section in the village core to a rural cross-section, followed by a semi-urban section approaching Edward Street East. South of George Street, Mary Street returns to a rural cross-section.
- Edward Street East is characterized by a semi-urban cross-section west of Mary Street. East of Mary Street, the roadway transitions to an urban cross-section for approximately 200 m before becoming a rural gravel roadway further east toward the subject site.

---

[1] *Official Plan of the Township of Clearview,* Township of Clearview, GSP Group Inc., Office Consolidated: December 2025.
[2] *Official Plan,* County of Simcoe, Office Consolidated: February 2023.

- George Street has a rural cross-section west of Mary Street, transitions to a semi-urban cross-section east of Mary Street and returns to a rural cross-section east of Concession 3.

Table 1: Road Network

ROAD	CLASSIFICATION	CROSS-SECTION	SPEED (KM/H)	DIRECTION
County Road 9	primary arterial	2-lane; rural	50-60	EW
County Road 42	primary arterial	2-lane; rural	60-80	NS
George Street	arterial	2-lane; rural/semi-urban	50	EW
Concession Road 3	arterial	2-lane; rural	50	NS
Edward Street E	collector	2-lane; rural/semi-urban	50	EW
Mary Street	local	2-lane; semi-urban	50	NS

2.1.2 Intersections

The intersections with the study area are illustrated in Figure 3, with additional details provided in Table 2.

Table 2: Key Intersections

INTERSECTION	INTERSECTION CONFIGURATION				CONTROL
	NB	SB	EB	WB	
Edward Street E & Mary Street	shared LTR	shared LTR	shared LTR	shared LTR	stop on Edward St E
County Road 42 & Edward Street E	shared LT	shared TR	shared LR	-	stop on Edward St E
George Street & Mary Street	shared LTR	shared LTR	shared LTR	shared LTR	all-way stop
George Street & Concession 3	shared TR	-	shared TR	shared TL	stop on George St WB
County Road 9 & County Road 42	shared LTR	shared LTR	shared LTR	shared LTR	signal
County Road 9 & Mary Street	shared LTR	shared LTR	shared LTR	shared LTR	stop on Mary St

LT left-thru LTR left-thru-right TR thru-right LR left-right

2.2 ACTIVE TRANSPORTATION

2.2.1 Pedestrian Network

The existing sidewalk network within the study area is illustrated in Figure 4.

2.2.2 Cycling Network

There are no designated cycling facilities within the study area (i.e. cyclists travel on the road or on the sidewalks).

2.3 TRAFFIC VOLUMES

2.3.1 Traffic Counts

To establish the existing traffic volumes on the road network, 6-hour turning movement counts were conducted at the study area intersections on Tuesday July 29, 2025 (7:00 to 10:00 and 15:00 to 18:00). The observed peak hours and peak hour volumes are summarized in Table 3 and illustrated in Figure 5, with detailed count sheets provided in Appendix A. As indicated, the busiest peak hour was observed during the weekday PM peak period.

Table 3: Traffic Counts

INTERSECTION	PEAK HOURS & PEAK HOUR VOLUMES	
	Weekday AM	Weekday PM
Edward Street E & Mary Street	8:00-9:00 73 vehicles	16:15-17:15 **93 vehicles**
Edward Street E & County Road 42	8:00-9:00 358 vehicles	16:45-17:45 **487 vehicles**
George Street & Mary Street	8:00-9:00 79 vehicles	16:15-17:15 **106 vehicles**
George Street & Concession 3	8:00-9:00 55 vehicles	15:00 -16:00 **82 vehicles**
County Road 9 & County Road 42	7:45-8:45 666 vehicles	15:45-16:45 **919 vehicles**

2.3.2 Seasonal Adjustment

To consider the need for seasonal adjustments to the traffic volumes, average daily traffic volumes for the spring, summer and fall periods were obtained from the County of Simcoe for County Road 9 and County Road 42 through the study area. The seasonal volumes are provided in Table 4.

Table 4: County Road Seasonal Traffic Volumes – 2024

ROAD SECTION	SPRING	SUMMER	FALL
County Road 9 Mill Street to County Road 42	3,933	3,769	3,934
County Road 42 Dufferin Boundary to County Road 9	4,575	6,112	5,364

As indicated, seasonal traffic volumes on County Road 9 exhibit minimal variation throughout the year. While County Road 42 experiences higher traffic volumes during the summer months, the traffic counts for this study were completed in July and are therefore considered representative of peak seasonal conditions. Accordingly, no seasonal adjustment was applied to the observed traffic volumes.

2.3.3 2026 Conditions

To represent existing conditions, the traffic volumes observed during the 2025 counts were increased by a growth rate of 2% (background growth rates are discussed in additional detail in Section 3.2.1). The resulting traffic volumes, reflecting peak 2026 conditions, are illustrated in Figure 6.

2.4 TRAFFIC OPERATIONS

The assessment of existing conditions provides the baseline from which the future traffic operations (both without and with the subject development) can be assessed. As the capacity, and hence operations, of a road system is effectively dictated by its intersections, the assessment has focused on the operations of the study area intersections based on the following:

- the 2026 peak hour traffic volumes;
- the existing intersection configurations and traffic control; and
- procedures outlined in the *2000 Highway Capacity Manual*[3] (using Synchro v.12 software).

The analysis considers the following metrics for each lane group at signalized intersections and for the critical movements at unsignalized intersections (namely the stop-controlled movements and left turn movements):

- the average delay (measured in seconds);
- level of service (LOS); and

[3] *Highway Capacity Manual*. Transportation Research Board, Washington DC, 2000.

- volume to capacity (v/c) ratio.

LOS A corresponds to the best operating condition with minimal delays, whereas a LOS F corresponds to poor operations resulting from high intersection delays (LOS definitions are provided in Appendix B). A v/c ratio of less than 1.0 indicates that an intersection movement/approach is operating at less than capacity while v/c of 1.0 indicates capacity has been reached.

The summary of the intersection operations under existing conditions is provided in Table 5, with detailed operations worksheets included in Appendix C. As indicated, the study area intersections currently provide excellent overall operations (LOS B or better) during all peak hours.

Table 5: Intersection Operations – 2026

INTERSECTION, MOVEMENT & CONTROL			WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
			Delay	Los	V/c	Delay	Los	V/c
County Road 9 & County Road 42	EB LTR	signal	15	B	0.52	16	B	0.58
	WB LTR	signal	14	B	0.34	16	B	0.60
	NB LTR	signal	5	A	0.19	6	A	0.28
	SB LTR	signal	5	A	0.21	7	A	0.34
	overall	signal	10	A	0.30	11	B	0.42
Mary Street & Edward Street E	EB LTR	stop	10	A	0.02	10	A	0.02
	WB LTR	stop	10	A	0.02	10	A	0.04
	NB LTR	free	1	A	0.00	1	A	0.00
	SB LTR	free	2	A	0.00	2	A	0.00
County Road 42 & Edward Street E	EB LR	stop	11	B	0.02	12	B	0.03
	NB LT	free	1	A	0.00	1	A	0.00
Mary Street & George Street	EB LTR	stop	8	A	0.04	8	A	0.05
	WB LTR	stop	7	A	0.05	7	A	0.06
	NB LTR	stop	8	A	0.02	8	A	0.02
	SB LTR	stop	8	A	0.04	8	A	0.03
George Street & Concession Road 3	EB LT	free	2	A	0.00	1	A	0.00
	SB LR	stop	9	A	0.01	9	A	0.01
County Road 9, Mary Street & Jardine Crescent	EB LTR	free	1	A	0.00	1	A	0.00
	WB LTR	free	3	A	0.04	5	A	0.04
	NB LTR	stop	11	B	0.09	11	B	0.09
	SB LTR	stop	12	B	0.03	11	B	0.03

L left lane T through lane R right lane LT left-through TR through-right LTR left-through-right

2.5 ROAD NETWORK IMPROVEMENTS

Based on the results of the operational analysis, no improvements are required to accommodate the existing volumes on the study area road network.

3 Future Background Conditions

This chapter will describe the road network and background traffic volumes expected for the years 2031, 2036, 2041 and 2046. The 2031 and 2036 horizon years have been adopted to reflect 50% and 100% build-out of the proposed development, respectively. The 2041 and 2046 horizons address the longer-term impacts on the road network (5 and 10 years beyond full build-out).

3.1 ROAD NETWORK

There are no improvements currently being considered by the Township or County for the study area road network. As such, the road network as described in Section 2.1 has been maintained.

3.2 TRAFFIC VOLUMES

Background traffic volumes expected for the 2031, 2036, 2041 and 2046 horizon years have been determined based on the existing traffic volumes and historical and projected growth.

3.2.1 Background Growth

Population

Historical census data for Clearview Township and Simcoe County was reviewed for the years 2011, 2016 and 2021 to establish recent growth trends. The results, presented in Table 6, indicate that the Township and County have experienced average annual growth rates of 0.76% and 2.33%, respectively over the 10-year period (2011-2021). The more recent 5-year period (2016–2021) demonstrates slightly greater growth, with annual rates of 0.92% and 2.77%.

Table 6: Historical Population Growth

AREA	POPULATION			ANNUAL GROWTH RATE		
	2011	2016	2021	2011-16	2016-21	2011-21
Clearview	13,734	14,151	14,814	0.60%	0.92%	0.76%
Simcoe County	279,414	307,035	351,929	1.90%	2.77%	2.33%

The County of Simcoe's *Growth Forecasts and Land Needs Assessment*[4] report provides population and employment forecasts for the Township from 2021 to 2051 as follows:

[4] *Growth Forecasts and Land Needs Assessment*. Hemson Consulting Ltd., March 31, 2022.

- The Township is projected to reach a population of 21,820 persons by 2051, representing an average annual growth rate of approximately 1.3% from 2021 onward.
- Employment forecasts indicate that Clearview provided approximately 4,350 jobs in 2021 and is projected to provide 6,290 jobs by 2051, corresponding to an average annual employment growth rate of approximately 1.2%.

Traffic Volumes

Historical Annual Average Daily Traffic (AADT) volumes for the 2.5 km segment of County Road 9 extending east–west through the village of Creemore were reviewed based on data published by the County of Simcoe. Similarly, the section of County Road 42 south of County Road 9 was also considered. The results are summarized in Table 7.

Table 7: Historical AADT Volumes

ROAD SECTION	AADT			ANNUAL GROWTH	
	2018	2021	2024	2018-21	2021-2024
County Road 9 Mill Street to County Road 42	3,800	3,600	3,900	-1.8%	2.7%
County Road 42 Dufferin Boundary to Cty Rd 9	4,900	5,200	5,400	2.0%	1.3%

As indicated, traffic volumes on County Road 9 declined between 2018 and 2021, with an average annual growth rate of -1.8%, likely reflecting travel pattern changes associated with the COVID-19 pandemic. Since 2021, traffic volumes have recovered, increasing at an average annual rate of 2.7% between 2021 and 2024. In comparison, traffic volumes on County Road 42 have exhibited steady growth throughout the analysis period, increasing at an average annual rate of 2.0% between 2018 and 2021 and 1.3% between 2021 and 2024.

Other Studies

In addition to the historical traffic volume review, consideration was given to other transportation studies completed within the study area. The *7582 County Road 9 Transportation Impact Study*[5], the *Edward/George Residential Development Traffic Impact Brief*[6], and the *Creemore Commons*

[5] *7582 County Road 9 Transportation Impact Study*. Tatham Engineering Limited. August 2025.

[6] *Edward/George Street Residential Development Traffic Impact Brief.* Tatham Engineering Limited. May 2019.

Residential Development Traffic Impact Study[7] each adopted a background traffic growth rate of 2.0% per annum.

Overall Background Growth

Based on the historical and projected growth trends for the study area, a background growth rate of 2.0% per annum has been applied to all traffic volumes in this assessment.

3.2.2 Background Developments

In addition to background traffic growth, traffic generated by planned and approved developments within the study area has been incorporated into the future background traffic volumes. The development locations are noted in Figure 7 with additional details provided below.

Zeng Development

As per the *Edward/George Residential Development Traffic Impact Brief,* the proposed Zeng Development comprises 32 single-detached dwelling units and 30 townhouse units. At full buildout, the development is forecast to generate approximately 44 trips during the weekday AM peak hour and 56 trips during the weekday PM peak hour.

The noted Traffic Impact Brief indicates that all site-generated traffic will be directed toward the built-up area of Creemore via westbound movements along County Road 9. However, given that the proposed development is located immediately west of the subject site, the trip distribution and assignment have been updated for the purposes of this study to reflect a consistent routing pattern with the subject development.

Based on a review of recent aerial imagery, construction of the Zeng Development has not commenced. Accordingly, full buildout of the development has been assumed by the 2031 horizon year.

The distribution and assignment of site-generated traffic are illustrated in Figure 8.

Tribute Development

Based on the *Creemore Commons Residential Development Traffic Impact Study*, the Tribute Development is proposed to include 365 single-detached dwelling units and 171 townhouse units. At full buildout, the development is projected to generate approximately 319 trips during the weekday AM peak hour and 425 trips during the weekday PM peak hour.

---

[7] *Creemore Commons Residential Development Traffic Impact Study.* Crozier Consulting Engineers. April 2023.

The traffic impact study identifies a phased buildout of the development. Based on a review of available information, construction of the development has not commenced. For consistency with the analysis horizons adopted in this report, it has been assumed that 50% buildout will be achieved by the 2031 horizon year, with full buildout assumed by the 2036 horizon year.

The trip distribution and assignment used in this study are consistent with those identified in the traffic impact study. For trips assigned southbound on Mary Street, traffic has been assumed to continue south via the George Street/Concession 3 corridor, consistent with the available road network connections. The distribution and assignment of Tribute Development traffic are illustrated in Figure 9.

7582 County Road 9

Based on the *7582 County Road 9 Transportation Impact Study*, the proposed residential development consists of 8 freehold single-detached dwelling units and 116 condominium townhouse units. At full buildout, the development is forecast to generate approximately 62 trips during the weekday AM peak hour and 74 trips during the weekday PM peak hour.

The 7582 County Road 9 Transportation Impact Study assumed full buildout by the 2030 horizon year. Based on a review of available information, construction of the development has not commenced. Accordingly, the site-generated traffic volumes have been included in the 2031 horizon analysis. The trip distribution and assignment have been maintained consistent with the transportation impact study.

The distribution and assignment of 7582 County Road 9 Development traffic are illustrated in Figure 10.

3.2.3 Background Traffic Volumes

The resulting background traffic volumes for the 2031, 2036, 2041 and 2046 horizons are illustrated in Figure 11 to Figure 14, reflective of the following:

- the 2026 traffic volumes;
- an annual background growth rate of 2.0%; and
- the additional traffic volumes associated with the background developments considering the anticipated phasing for each.

3.3 TRAFFIC OPERATIONS

The key intersections were again analyzed for each horizon year given the projected background volumes. The results are summarized in following section, with detailed worksheets provided in Appendix C, assuming the existing intersection configurations and timings are maintained.

3.3.1 2031 Horizon

The summary of the intersection operation for the 2031 horizon under background conditions is provided in Table 8. As indicated, all study are intersections are expected to operate at excellent levels of service (LOS B or better) during both the weekday AM and PM peak hours.

Table 8: Intersection Operations – 2031 Background

INTERSECTION, MOVEMENT & CONTROL			WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
			Delay	Los	V/c	Delay	Los	V/c
County Road 9 & County Road 42	EB LTR	signal	14	B	0.59	13	B	0.57
	WB LTR	signal	12	B	0.32	14	B	0.62
	NB LTR	signal	7	A	0.26	9	A	0.38
	SB LTR	signal	8	A	0.28	10	A	0.47
	overall	signal	10	A	0.40	12	B	0.53
Mary Street & Edward Street E	EB LTR	stop	10	A	0.03	10	B	0.03
	WB LTR	stop	10	A	0.04	10	A	0.06
	NB LTR	free	1	A	0.00	1	A	0.00
	SB LTR	free	2	A	0.01	3	A	0.01
County Road 42 & Edward Street E	EB LR	stop	12	B	0.07	13	B	0.07
	NB LT	free	1	A	0.01	1	A	0.02
Mary Street & George Street	EB LTR	stop	8	A	0.06	8	A	0.07
	WB LTR	stop	8	A	0.07	8	A	0.11
	NB LTR	stop	8	A	0.02	8	A	0.02
	SB LTR	stop	8	A	0.06	8	A	0.05
George Street & Concession Road 3	EB LT	free	1	A	0.00	1	a	0.00
	SB LR	stop	9	A	0.03	9	A	0.02
County Road 9, Mary Street & Jardine Crescent	EB LTR	free	1	A	0.00	1	A	0.00
	WB LTR	free	3	A	0.04	4	A	0.04
	NB LTR	stop	12	B	0.15	12	B	0.14
	SB LTR	Stop	13	B	0.04	12	B	0.04

L left lane T through lane R right lane LT left-through TR through-right LTR left-through-right

3.3.2 2036 Horizon

The summary of the intersection operation for the 2036 horizon under background conditions is provided in Table 9. As indicated, all study are intersections are expected to operate at excellent levels of service (LOS B or better) during both the weekday AM and PM peak hours.

Table 9: Intersection Operations – 2036 Background

INTERSECTION, MOVEMENT & CONTROL			WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
			Delay	Los	V/c	Delay	Los	V/c
County Road 9 & County Road 42	EB LTR	signal	14	B	0.63	14	B	0.61
	WB LTR	signal	11	B	0.37	17	B	0.72
	NB LTR	signal	8	A	0.29	10	A	0.43
	SB LTR	signal	8	A	0.32	12	B	0.53
	overall	signal	11	B	0.44	13	B	0.61
Mary Street & Edward Street E	EB LTR	stop	10	A	0.03	11	B	0.04
	WB LTR	stop	10	A	0.04	10	A	0.07
	NB LTR	free	1	A	0.00	1	A	0.00
	SB LTR	free	3	A	0.02	3	A	0.02
County Road 42 & Edward Street E	EB LR	stop	12	B	0.08	14	B	0.08
	NB LT	free	1	A	0.01	1	A	0.02
Mary Street & George Street	EB LTR	stop	8	A	0.05	8	A	0.06
	WB LTR	stop	8	A	0.07	8	A	0.11
	NB LTR	stop	8	A	0.02	8	A	0.02
	SB LTR	stop	8	A	0.08	8	A	0.07
George Street & Concession Road 3	EB LT	free	1	A	0.00	1	A	0.00
	SB LR	stop	9	A	0.02	9	A	0.02
County Road 9, Mary Street & Jardine Crescent	EB LTR	free	1	A	0.00	1	A	0.00
	WB LTR	free	3	A	0.05	5	A	0.05
	NB LTR	stop	13	B	0.19	13	B	0.17
	SB LTR	Stop	14	B	0.05	13	B	0.04

L left lane T through lane R right lane LT left-through TR through-right LTR left-through-right

3.3.3 2041 Horizon

The summary of the intersection operation for the 2041 horizon under background conditions is provided in Table 10. As indicated, all study are intersections are expected to operate at excellent levels of service (LOS B or better) during both the weekday AM and PM peak hours.

Table 10: Intersection Operations – 2041 Background

INTERSECTION, MOVEMENT & CONTROL			WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
			Delay	Los	V/c	Delay	Los	V/c
County Road 9 & County Road 42	EB LTR	signal	15	B	0.66	15	B	0.65
	WB LTR	signal	11	B	0.39	18	B	0.76
	NB LTR	signal	9	A	0.33	11	B	0.49
	SB LTR	signal	9	A	0.37	13	B	0.60
	overall	signal	11	A	0.49	14	B	0.67
Mary Street & Edward Street E	EB LTR	stop	10	A	0.03	11	B	0.04
	WB LTR	stop	10	A	0.05	10	A	0.08
	NB LTR	free	1	A	0.00	1	A	0.00
	SB LTR	free	3	A	0.02	3	A	0.02
County Road 42 & Edward Street E	EB LR	stop	13	B	0.09	15	B	0.09
	NB LT	free	1	A	0.01	1	A	0.02
Mary Street & George Street	EB LTR	stop	8	A	0.05	8	A	0.07
	WB LTR	stop	8	A	0.07	8	A	0.12
	NB LTR	stop	8	A	0.03	8	A	0.03
	SB LTR	stop	8	A	0.08	8	A	0.07
George Street & Concession Road 3	EB LT	free	2	A	0.00	1	A	0.00
	SB LR	stop	9	A	0.02	10	A	0.02
County Road 9, Mary Street & Jardine Crescent	EB LTR	free	1	A	0.00	1	A	0.00
	WB LTR	free	3	A	0.05	5	A	0.05
	NB LTR	stop	14	B	0.21	13	B	0.19
	SB LTR	Stop	14	B	0.06	13	B	0.05

L left lane T through lane R right lane LT left-through TR through-right LTR left-through-right

3.3.4 2041 Horizon

The summary of the intersection operation for the 2041 horizon under background conditions is provided in Table 11. As indicated, all study are intersections are expected to operate at acceptable levels of service (LOS C or better) during both the weekday AM and PM peak hours.

Table 11: Intersection Operations – 2046 Background

INTERSECTION, MOVEMENT & CONTROL			WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
			Delay	Los	V/c	Delay	Los	V/c
County Road 9 & County Road 42	EB LTR	signal	16	B	0.69	16	B	0.70
	WB LTR	signal	11	B	0.42	20	B	0.80
	NB LTR	signal	9	A	0.37	13	B	0.55
	SB LTR	signal	10	A	0.41	16	B	0.68
	overall	signal	12	B	0.53	16	B	0.74
Mary Street & Edward Street E	EB LTR	stop	10	B	0.04	11	B	0.04
	WB LTR	stop	10	A	0.05	10	A	0.08
	NB LTR	free	1	A	0.00	1	A	0.00
	SB LTR	free	3	A	0.02	3	A	0.02
County Road 42 & Edward Street E	EB LR	stop	13	B	0.10	16	C	0.11
	NB LT	free	1	A	0.01	1	A	0.03
Mary Street & George Street	EB LTR	stop	8	A	0.06	8	A	0.08
	WB LTR	stop	8	A	0.08	8	A	0.13
	NB LTR	stop	8	A	0.03	8	A	0.03
	SB LTR	stop	8	A	0.09	8	A	0.07
George Street & Concession Road 3	EB LT	free	1	A	0.00	1	A	0.00
	SB LR	stop	9	A	0.02	10	A	0.02
County Road 9, Mary Street & Jardine Crescent	EB LTR	free	1	A	0.00	1	A	0.00
	WB LTR	free	3	A	0.06	5	A	0.06
	NB LTR	stop	15	C	0.24	14	B	0.22
	SB LTR	stop	15	C	0.07	14	B	0.05

L left lane T through lane R right lane LT left-through TR through-right LTR left-through-right

3.4 ROAD NETWORK IMPROVEMENTS

In consideration of the noted intersection operations, no improvements are required to address the future background conditions.

4 Proposed Development

This chapter will provide additional details with respect to the proposed development, including its location, the projected site generated traffic volumes and the assignment of such to the adjacent road network.

4.1 LOCATION

As illustrated in Figure 1, the proposed development is to be located at 163 and 164 Edward Street East, within the community of Creemore, Township of Clearview.

4.2 LAND-USE & PHASING

The proposed development consists of a mix of residential and non-residential land uses located both north and south of Edward Street East. The development includes 216 single-detached dwelling units, 164 semi-detached units, 349 townhouse units, 210 apartment units with 7,130 m^2 (76,747 ft^2) of ground floor commercial space and a 66-room hotel.

A summary of the proposed land uses is provided in Table 12, and the conceptual site plan is illustrated in Figure 15.

Table 12: Land Use

LAND USE	SIZE		
	North Block 164 Edward St	South Block 163 Edward St	Total
single detached	145 units	71 units	216 units
semi-detached	-	164 units	164 units
townhouses	-	349 units	349 units
apartments	71 units	139 units	210 units
commercial/retail	2,410 m^2 (25,941 ft^2)	4,720 m^2 (50,806 ft^2)	7,130 m^2 (76,747 ft^2)
hotel	-	66 rooms	66 rooms

Given the scale of the proposed development, a phased buildout has been assumed, with 50% residential buildout by 2031 and full residential buildout by 2036. The commercial/retail and hotel components are assumed operational upon full buildout and have been included in the 2036 and subsequent horizon years.

4.3 ACCESS

4.3.1 Location

The proposed internal road network will comprise of municipal roadways, providing connectivity throughout the development and to the surrounding road network. The development will be connected to the existing road system via the extensions of Elizabeth Street and George Street, in addition to 5 proposed connections to Edward Street East.

Along Edward Street East, Streets H (North and South), Street M, and Street N will each form 3-leg (T) intersections, while Street L will align on the opposite sides of Edward Street to form a 4-leg intersection. In all cases, stop control will be provided in the new street connections.

4.3.2 Sightline Assessment

A sight line assessment was conducted to establish the available sight lines along Edward Street East. The assessment has considered both minimum stopping sight distance and intersection sight distance, as defined below per TAC guidelines.

- The minimum stopping sight distance provides a sufficient distance for an approaching motorist to observe a stationary hazard in the road and bring their vehicle to a complete stop prior to the hazard.
- The intersection sight distance allows a vehicle to enter a main road from a side street (or site access) and attain the appropriate operating speed without significantly impacting the operating speed of an approaching vehicle.

The minimum stopping sight and intersection sight distance requirements for a design speed of 60 km/h (reflective of the 50 km/h posted speed + 10 km/h) on Edward Street are provided in Table 13. The available sight distances are also summarized in Table 13 and illustrated in Figure 16.

Table 13: Sight Line Assessment

LOCATION	DESIGN SPEED	STOPPING SIGHT DISTANCE	INTERSECTION SIGHT DISTANCE		AVAILABLE SIGHTLINES TO/FROM	
			Left Turn	Right Turn	East	West
Street H	60 km/h	85 m	130 m	110 m	>250 m	>250 m
Street L	60 km/h	85 m	130 m	110 m	>250 m	>250 m
Street M & N	60 km/h	85 m	130 m	110 m	>250 m	>250 m

As indicated, the available sight distances at the proposed intersections on Edward Street East satisfy the TAC minimum stopping sight distance and intersection sight distance requirements for the assumed design speed.

4.4 SITE TRAFFIC

4.4.1 Trip Generation

The number of vehicle trips to be generated by the proposed development for the weekday AM and PM peak hours has been determined based on type of use, development size and trip generation rates as per the *ITE Trip Generation Manual, 12th Edition*. Based on the proposed development, the following ITE trip rates have been applied:

Development Type	ITE Land Use
▪ single family detached	▪ *single family detached* (ITE Code 210)
▪ semi-detached	▪ *single family detached* (ITE Code 210)
▪ townhouses	▪ *single family attached* (ITE Code 215)
▪ apartments	▪ *multifamily housing – low-rise (4-10 levels, not close to rail transit* (ITE Code 221)
▪ commercial/retail	▪ *strip retail plaza* (<40k sqft) (ITE Code 822)
▪ hotel	▪ *hotel* (ITE Code 310)

The associated trip rates and trip estimates are provided in Table 14 and Table 15, respectively.

Table 14: Trip Rates – 163 & 164 Edward Street East

LAND USE	VARIABLE	WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
		In	Out	Total	In	Out	Total
single family detached (ITE 210)	units	0.19	0.51	0.70	0.58	0.35	0.93
single family attached (ITE Code 215)	units	0.12	0.35	0.47	0.29	0.22	0.51
multifamily housing – low rise (ITE 221)	units	0.09	0.29	0.38	0.24	0.14	0.38
hotel (ITE 310)	rooms	0.18	0.16	0.34	0.24	0.23	0.47
strip retail plaza (ITE 822)	1,000 ft² GFA	2.16	1.77	3.93	3.15	3.15	6.29

Table 15: Trip Estimates – 163 & 164 Edward Street East

LAND USE	UNITS/ SIZE	WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
		In	Out	Total	In	Out	Total
North Block		**90**	**141**	**230**	**182**	**143**	**325**
single family detached	145 units	27	74	102	84	51	135
apartments	71 units	6	21	27	17	10	27
commercial/retail	25,941 ft² GFA	56	46	102	82	82	163
South Block		**219**	**385**	**604**	**447**	**354**	**801**
single family detached	71 units	13	36	50	41	25	66
semi-detached	164 units	31	84	115	95	58	153
townhouses	349 units	41	123	164	101	77	178
apartments	139 units	12	41	53	34	19	53
commercial/retail	50,806 ft² GFA	110	90	200	160	160	320
hotel	66 units	12	11	22	16	15	31
Total (North + South)		**309**	**525**	**834**	**629**	**496**	**1125**

As indicated, the proposed development is expected to generate 834 trips during the weekday AM peak and 1,127 trips during the weekday PM peak.

Given the mixed-use nature of the development, not all of the trips generated by the site will be new trips on the road network. The commercial element will result in internal and pass-by trips, as detailed below:

- An internal trip occurs when a motorist travels to/from the subject site via internal roads without entering the adjacent road network. For instance, a resident of the development visiting the commercial area via the internal road network does not contribute a new trip to the external road network.
- A pass-by trip occurs when a motorist is already on the road network for another purpose and chooses to stop at a different site before continuing to their primary destination. For example, a motorist on Edward Street may stop at the commercial block before continuing

to their original destination. Per the ITE *Trip Generation Handbook*[8], pass-by rates for the *shopping center* land-use (considered the most similar use to the commercial space on-site) are estimated to be 34% of total trips during the weekday PM peak hour. Pass-by rates during the weekday AM peak hour are not measured, recognizing that retail stores are often closed during the AM peak hour.

Notwithstanding the potential for internal and pass-by trips associated with the commercial component, no reductions have been applied in this analysis. The commercial accesses are located along Edward Street East, a low-volume roadway that does not function as a primary travel corridor. Opportunities for pass-by trips from County Road 9 or County Road 42 are also considered limited due to its distance and the indirect routing required to access the site. As a result, any pass-by activity is expected to be minimal. Similarly, internal trip reductions have not been applied in order to maintain a conservative assessment of external network impacts.

4.4.2 Trip Distribution & Assignment

Residential Trips

The distribution of site-generated residential trips has been developed based on data obtained from the *2022 Transportation Tomorrow Survey (TTS)*, a comprehensive regional travel survey conducted across the Greater Golden Horseshoe Area.

Based on the TTS 2022 Data Guide, the subject site is located within Traffic Analysis Zone (TAZ) 17125, corresponding to the community of Creemore. Trip-making patterns were initially reviewed using trips to and from this zone. However, the TTS data includes a significant proportion of internal trips within the existing Creemore settlement area, which are reflective of current travel patterns for a small village.

Given the scale of the proposed development, which will substantially increase the residential population and is expected to generate a greater proportion of external commuting trips, the internal TTS trips have not been considered in establishing the trip distribution. Instead, only external travel patterns have been used, resulting in the following distribution:

- to/from the north via County Road 42 – 40%;
- to/from the south via County Road 42 – 40%;
- to/from the east via County Road 9 – 10%; and
- to/from the west via County Road 9 – 10%.

[8] *Trip Generation Handbook, 3rd Edition*. Institute of Transportation Engineers. September 2017.

Commercial Trips

With respect to trips generated by the commercial/retail land uses, such are anticipated to be predominantly local in nature, serving the subject development and Creemore area. The primary commercial and population centre within the study area is the Creemore settlement area, with limited development in the surrounding rural areas. As such, most of the commercial trips are expected to originate from and be destined to the existing built-up area of Creemore.

Given that the subject site is located on the eastern edge of Creemore, commercial traffic is expected to be primarily oriented to/from the west. Accordingly, all commercial/retail traffic has been distributed to/from the west into the built-up area of Creemore via the local road network.

Assignment

The assignment of residential and commercial/retail trips to the surrounding road network, based on the above assumptions, is illustrated in Figure 17 and Figure 18 respectively. The combined site-generated traffic is illustrated in Figure 19.

5 Future Total Conditions

This chapter will address the resulting impacts of the proposed residential development on the adjacent road system. Three areas are to be addressed:

- operations of the key intersections, including the new intersections on Edward Street; and
- any potential improvements to the study area road network, if necessary.

5.1 TRAFFIC VOLUMES

To assess the impacts of the increased traffic volumes resulting from the proposed development, the site generated traffic was combined with the 2031, 2036, 2041 and 2046 background traffic volumes. The resulting total traffic volumes are presented in Figure 20 through Figure 23.

5.2 TRAFFIC OPERATIONS

The operations of the key intersections were again investigated considering the total traffic volumes for each horizon year. In addition, the site access operations have also been reviewed, assuming stop control upon exit of the site. The results of the operational analyses for each horizon year are provided in the sections below, with detailed worksheets provided in Appendix E.

5.2.1 2031 Horizon

The summary of the intersection operation for the 2031 horizon under total conditions is provided in Table 16. As indicated, all study are intersections are expected to operate at acceptable levels of service (LOS C or better) during both the weekday AM and PM peak hours.

2036 Horizon

The summary of the intersection operations for the 2036 horizon is provided in Table 17. As indicated, all study area intersections are expected to operate at acceptable levels of service (LOS C or better) under 2036 total traffic conditions, with the exception of the unsignalized intersections of County Road 42 and Edward Street East and County Road 9, Mary Street and Jardine Crescent during the weekday PM peak hour.

At the County Road 9, Mary Street and Jardine Crescent intersection, the increased delay is minor and is limited to a single peak period and hence is considered acceptable for the 2036 horizon.

Table 16: Intersection Operations – 2031 Total

INTERSECTION, MOVEMENT & CONTROL			WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
			Delay	Los	V/c	Delay	Los	V/c
County Road 9 & County Road 42	EB LTR	signal	14	B	0.58	13	B	0.55
	WB LTR	signal	12	B	0.34	16	B	0.67
	NB LTR	signal	8	A	0.33	10	A	0.44
	SB LTR	signal	8	A	0.30	11	B	0.54
	overall	signal	10	A	0.43	12	B	0.60
Mary Street & Edward Street E	EB LTR	stop	10	B	0.03	11	B	0.04
	WB LTR	stop	10	A	0.09	10	A	0.09
	NB LTR	free	1	A	0.00	1	A	0.00
	SB LTR	free	3	A	0.02	5	A	0.04
County Road 42 & Edward Street E	EB LR	stop	16	C	0.40	22	C	0.41
	NB LT	free	2	A	0.04	4	A	0.11
Mary Street & George Street	EB LTR	stop	8	A	0.07	8	A	0.08
	WB LTR	stop	8	A	0.08	8	A	0.12
	NB LTR	stop	8	A	0.02	8	A	0.02
	SB LTR	stop	8	A	0.06	8	A	0.06
George Street & Concession Road 3	EB LT	free	2	A	0.00	2	A	0.01
	SB LR	stop	9	A	0.03	9	A	0.02
County Road 9, Mary Street & Jardine Crescent	EB LTR	free	1	A	0.00	1	A	0.00
	WB LTR	free	3	A	0.04	4	A	0.04
	NB LTR	stop	15	B	0.29	14	B	0.23
	SB LTR	stop	13	B	0.04	13	B	0.04
Edward Street E & Street H (North)	SB LR	stop	9	A	0.00	9	A	0.00
Edward Street E & Street H (S)	NB LR	stop	9	A	0.02	9	A	0.01
Edward Street E & Street L	NB LTR	stop	9	A	0.05	10	A	0.04
	SB LTR	stop	10	A	0.01	10	B	0.01
Edward Street E & Street N	SB LR	stop	10	A	0.03	11	B	0.02
Edward Street E & Street M	NB LR	stop	10	A	0.08	10	A	0.06

L left lane T through lane R right lane LT left-through TR through-right LTR left-through-right

Table 17: Intersection Operations – 2036 Total

INTERSECTION, MOVEMENT & CONTROL			WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
			Delay	Los	V/c	Delay	Los	V/c
County Road 9 & County Road 42	EB LTR	signal	14	B	0.63	13	B	0.57
	WB LTR	signal	12	B	0.42	21	C	0.81
	NB LTR	signal	9	A	0.44	13	B	0.56
	SB LTR	signal	9	A	0.36	15	B	0.67
	overall	signal	11	B	0.52	16	B	0.73
Mary Street & Edward Street E	EB LTR	stop	14	B	0.14	20	C	0.28
	WB LTR	stop	12	B	0.26	16	C	0.40
	NB LTR	free	1	A	0.00	1	A	0.01
	SB LTR	free	4	A	0.06	5	A	0.12
County Road 42 & Edward Street E	EB LR	stop	42	E	0.84	**144**	**F**	**1.14**
	NB LT	free	3	A	0.07	6	A	0.23
Mary Street & George Street	EB LTR	stop	8	A	0.08	9	A	0.12
	WB LTR	stop	8	A	0.16	9	A	0.24
	NB LTR	stop	8	A	0.03	8	A	0.03
	SB LTR	stop	9	A	0.14	9	A	0.18
George Street & Concession Road 3	EB LT	free	5	A	0.05	5	A	0.08
	SB LR	stop	9	A	0.09	10	A	0.13
County Road 9, Mary Street & Jardine Crescent	EB LTR	free	1	A	0.00	1	A	0.00
	WB LTR	free	3	A	0.05	5	A	0.06
	NB LTR	stop	42	E	0.80	**57**	**F**	0.90
	SB LTR	stop	15	B	0.05	15	B	0.05
Edward Street E & Street H (North)	SB LR	stop	10	A	0.02	10	A	0.02
Edward Street E & Street H (S)	NB LR	stop	10	A	0.07	11	B	0.08
Edward Street E & Street L	NB LTR	stop	11	B	0.15	12	B	0.16
	SB LTR	stop	12	B	0.04	12	B	0.03
Edward Street E & Street N	SB LR	stop	12	B	0.08	13	B	0.06
Edward Street E & Street M	NB LR	stop	11	B	0.21	12	B	0.17

L left lane T through lane R right lane LT left-through TR through-right LTR left-through-right

To address the poor operations, traffic signal warrants were reviewed for the intersection of County Road 42 with Edward Street East in accordance with *Ontario Traffic Manual (OTM), Book 12, Justification 7,* considering the excessive delays observed under total conditions. The analysis confirms that signalization might be warranted (completed warrant is provided in Appendix F). Accordingly, the following improvements are recommended:

- Implementation of traffic signals at the intersection of County Road 42 and Edward Street East, including construction of exclusive northbound left turn lane.

The intersection was re-assessed to consider the noted improvement. The results of the analysis are summarized in Table 18. As indicated, the intersection is projected to provide overall excellent levels of service (LOS A).

Table 18: Intersection Operations – 2036 Total (with improvements)

INTERSECTION, MOVEMENT & CONTROL			WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
			Delay	Los	V/c	Delay	Los	V/c
County Road 42 & Edward Street E	EB LR	signal	14	B	0.58	22	C	0.54
	NB L	signal	7	A	0.17	9	A	0.45
	NB T	signal	8	A	0.33	6	A	0.38
	SB TR	signal	8	A	0.39	7	A	0.46
	overall	signal	10	A	0.46	10	A	0.48

L left lane T through lane R right lane LT left-through TR through-right LTR left-through-right

5.2.2 2041 Horizon

The summary for the intersection operations for the 2041 horizon is provided in Table 19, carrying forward the improvements required under the 2036 horizon. As indicated, all study intersections are expected to operate at acceptable levels of service (LOS C or better) under the 2041 total traffic conditions except for the intersection of County Road 9 with Mary Street and Jardine Crescent, which experiences increased delays.

Table 19: Intersection Operations – 2041 Total

INTERSECTION, MOVEMENT & CONTROL			WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
			Delay	Los	V/c	Delay	Los	V/c
County Road 9 & County Road 42	EB LTR	signal	15	B	0.66	13	B	0.61
	WB LTR	signal	12	B	0.45	24	C	0.85
	NB LTR	signal	10	A	0.49	14	B	0.62
	SB LTR	signal	10	A	0.41	19	B	0.75
	overall	signal	12	B	0.56	18	B	0.80

INTERSECTION, MOVEMENT & CONTROL			WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
			Delay	Los	V/c	Delay	Los	V/c
Mary Street & Edward Street E	stop	signal	14	B	0.14	20	C	0.29
	stop	signal	12	B	0.27	16	C	0.42
	free	signal	1	A	0.00	1	A	0.01
	free	signal	4	A	0.07	5	A	0.12
County Road 42 & Edward Street E	EB LR	signal	14	B	0.58	22	C	0.55
	NB L	signal	7	A	0.19	9	A	0.48
	NB T	signal	8	A	0.37	6	A	0.42
	SB TR	signal	8	A	0.43	7	A	0.49
	overall	signal	10	A	0.48	10	A	0.50
Mary Street & George Street	EB LTR	stop	8	A	0.09	9	A	0.13
	WB LTR	stop	8	A	0.17	9	A	0.25
	NB LTR	stop	8	A	0.03	8	A	0.03
	SB LTR	stop	9	A	0.15	9	A	0.18
George Street & Concession Road 3	EB LT	free	5	A	0.05	5	A	0.08
	SB LR	stop	10	A	0.10	10	A	0.14
County Road 9, Mary Street & Jardine Crescent	EB LTR	free	1	A	0.00	1	A	0.00
	WB LTR	free	3	A	0.06	5	A	0.07
	NB LTR	stop	**58**	**F**	0.89	**78**	**F**	0.98
	SB LTR	stop	16	C	0.07	16	C	0.06
Edward Street E & Street H (North)	SB LR	stop	10	A	0.02	10	A	0.02
Edward Street E & Street H (S)	NB LR	stop	10	A	0.07	12	B	0.08
Edward Street E & Street L	NB LTR	stop	11	B	0.15	12	B	0.16
	SB LTR	stop	12	B	0.04	12	B	0.03
Edward Street E & Street N	SB LR	stop	12	B	0.08	13	B	0.06
Edward Street E & Street M	NB LR	stop	11	B	0.21	12	B	0.18

L left lane T through lane R right lane LT left-through TR through-right LTR left-through-right

To address the future operational demands at the intersection of County Road 9, Mary Street and Jardine Crescent, traffic signal warrants were reviewed in accordance with the *Ontario Traffic Manual (OTM) Book 12, Justification 7*. The warrant assessment results are provided in

Appendix F. Based on the future traffic volumes, signalization is recommended for the 2041 horizon to address increasing operational demands.

The intersection was reassessed assuming implementation of traffic signal control. As summarized in Table 20, the signalized intersection is expected to operate with excellent overall operations, providing LOS A during the weekday AM peak hour and LOS B during the weekday PM peak hour under 2041 total traffic conditions.

Table 20: Intersection Operations – 2041 Total (with improvements)

INTERSECTION, MOVEMENT & CONTROL			WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
			Delay	Los	V/c	Delay	Los	V/c
County Road 9, Mary Street & Jardine Crescent	EB LTR	signal	10	A	0.58	15	B	0.74
	NB LTR	signal	9	A	0.46	9	A	0.24
	NB LTR	signal	11	B	0.61	16	B	0.69
	SB LTR	signal	7	A	0.04	9	A	0.03
	overall	signal	10	A	0.59	14	B	0.71

L left lane T through lane R right lane LT left-through TR through-right LTR left-through-right

5.2.3 2046 Horizon

The summary of the intersection operations for the 2046 horizon under total conditions is provided in Table 21.

As indicated, all study intersections are expected to operate at acceptable levels of service (LOS C or better),

Table 21: Intersection Operations – 2046 Total

INTERSECTION, MOVEMENT & CONTROL			WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
			Delay	Los	V/c	Delay	Los	V/c
County Road 9 & County Road 42	EB LTR	signal	16	B	0.69	13	B	0.66
	WB LTR	signal	12	B	0.48	30	C	0.90
	NB LTR	signal	11	B	0.53	17	B	0.69
	SB LTR	signal	11	B	0.47	26	C	0.86
	overall	signal	12	B	0.60	23	C	0.88
Mary Street & Edward Street E	stop	signal	14	B	0.15	21	C	0.30
	stop	signal	12	B	0.27	17	C	0.43
	free	signal	1	A	0.00	1	A	0.01
	free	signal	4	A	0.07	5	A	0.12

INTERSECTION, MOVEMENT & CONTROL			WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
			Delay	Los	V/c	Delay	Los	V/c
County Road 42 & Edward Street E	EB LR	signal	14	B	0.59	22	C	0.55
	NB L	signal	7	A	0.20	11	B	0.52
	NB T	signal	8	A	0.40	7	A	0.46
	SB TR	signal	9	A	0.47	8	A	0.53
	overall	signal	10	A	0.51	10	A	0.53
Mary Street & George Street	EB LTR	stop	8	A	0.09	9	A	0.14
	WB LTR	stop	8	A	0.17	9	A	0.26
	NB LTR	stop	8	A	0.03	8	A	0.03
	SB LTR	stop	9	A	0.15	9	A	0.19
George Street & Concession Road 3	EB LT	free	5	A	0.05	5	A	0.09
	SB LR	stop	10	A	0.10	10	A	0.14
County Road 9, Mary Street & Jardine Crescent	EB LTR	signal	15	B	0.68	21	C	0.82
	WB LTR	signal	14	B	0.59	11	B	0.31
	NB LTR	signal	11	B	0.52	16	B	0.62
	SB LTR	signal	7	A	0.03	9	A	0.03
	overall	signal	14	B	0.58	18	B	0.72
Edward Street E & Street H (North)	SB LR	stop	10	A	0.02	10	A	0.02
Edward Street E & Street H (S)	NB LR	stop	10	B	0.07	12	B	0.08
Edward Street E & Street L	NB LTR	stop	11	B	0.15	12	B	0.16
	SB LTR	stop	12	B	0.04	13	B	0.03
Edward Street E & Street N	SB LR	stop	12	B	0.08	13	B	0.07
Edward Street E & Street M	NB LR	stop	11	B	0.21	12	B	0.18

L left lane T through lane R right lane LT left-through TR through-right LTR left-through-right

5.3 ROAD NETWORK IMPROVEMENTS

5.3.1 Intersection Operations

The following is a summary of the road network improvements that are recommended to accommodate the operations through the 2046 horizon under total conditions:

2031 Horizon

- No improvements are recommended.

2036 Horizon

- County Road 42 & Edward Street East: Implementation of traffic signals and a northbound left turn lane on County Road 42.

2041 Horizon

- County Road 9, Mary Street & Jardine Crescent: Implementation of traffic signals.

2046 Horizon

- No improvements are recommended.

5.3.2 Intersection Turn Lanes

Despite the otherwise acceptable operations provided at the site access, the need for exclusive turn lanes on Edward Street East at the proposed access points to serve turning traffic has been reviewed based on MTO warrants. The review is based on the following *MTO guidelines for auxiliary turn lanes at unsignalized intersections*[9].

Right Turn Lanes

At unsignalized intersections, MTO guidelines recommend that an exclusive right-turn lane be considered where right-turn volumes exceed approximately 60 vehicles per hour and/or where right-turning vehicles are expected to impede through traffic operations.

The projected right-turn volumes at the proposed street intersections are generally below the MTO guideline threshold, with the highest right-turn volume being 61 vehicles per hour at Street L (south parcel). In addition, through traffic volumes on Edward Street East are relatively low and are not expected to be adversely affected by right-turning vehicles. Accordingly, exclusive right-turn lanes are not warranted.

Left Turn Lanes

For two-lane undivided roadways, MTO guidelines for left-turn lane warrants at unsignalized intersections consider the design speed, advancing (through) volume, opposing volume, and the proportion of left-turning vehicles within the advancing traffic stream.

A left-turn lane warrant assessment was completed for the intersection of Mary Street and Edward Street East in accordance with MTO guidelines. The analysis, provided in Appendix G, indicates that the warrant is not satisfied.

---

[9] *Geometric Design Standards for Ontario Highways*, Ontario Ministry of Transportation, undated.

Similarly, based on the projected traffic volumes and turning movements at the proposed development access intersections on Edward Street East, the warrant criteria for exclusive left-turn lanes are not met. In particular, the relatively low through and opposing traffic volumes on Edward Street East limit the potential for delay or conflict associated with left-turning vehicles.

Accordingly, exclusive left-turn lanes are not warranted on Edward Street East.

6 Summary

6.1 PROPOSED DEVELOPMENT

This study has addressed the transportation impacts associated with the proposed residential development located at 163 & 164 Edward Street within the community of Creemore, Township of Clearview. The development program includes 216 single-detached dwelling units, 164 semi-detached units, 349 townhouse units, 210 apartment units with 7,130 hectares (76,747 ft^2) of ground floor commercial/retail space, and a 66-room hotel. Upon build-out, the development is expected to generate 834 trips during the AM peak hour and 1125 trips during the PM peak hour.

6.2 TRAFFIC OPERATIONS

In addressing the study area traffic operations, the subject intersections were analysed under existing (2026) and future (2031, 2036, 2041 and 2046) horizon periods. The new intersections on Edward Street created by the proposed municipal road network serving the site were also reviewed under the noted future horizons. The following is a summary of the recommended improvements to the study area road network:

6.2.1 Existing Conditions

No recommended improvements.

6.2.2 Background Conditions

No recommended improvements.

6.2.3 Total Conditions

2031 Horizon

- No improvements are recommended.

2036 Horizon

- County Road 42 & Edward Street East: Implementation of traffic signals and a northbound left turn lane.

2041 Horizon

- County Road 9, Mary Street & Jardine Crescent: Implementation of traffic signals.

2046 Horizon

- No improvements are recommended.

6.2.4 Sight Line Assessment

The available sight lines along Edward Street East at the proposed site accesses were reviewed and are considered appropriate in consideration of TAC design guidelines for minimum stopping and intersection sight distance requirements.

6.2.5 Turn Lane Requirements

The need for exclusive right and left turn lanes within the study area was reviewed in consideration of MTO guidelines for auxiliary turn lanes at unsignalized intersections. Based on the projected volume of right and left turning vehicles, exclusive turn lanes are not warranted. A northbound left turn lane on County Road 42 is recommended in conjunction with traffic signal control to maximize the effectiveness of the signals and remove the left turning traffic from the through traffic.

Figure 1: Site Location

Figure 2: Area Road Network

Figure 3: Study Area Intersections

Figure 4: Active Transportation Network - Sidewalks

Figure 5: Traffic Counts

Figure 6: Traffic Volumes – 2026

Figure 7: Background Developments

Figure 8: Traffic Volumes – Zeng Development (Background)

Figure 9: Traffic Volumes – Tribute Development (Background)

Figure 10: Traffic Volumes – 7582 County Road 9 (Background)

Figure 11: Traffic Volumes – 2031 Background

Figure 12: Traffic Volumes – 2036 Background

Figure 13: Traffic Volumes – 2041 Background

Figure 14: Traffic Volumes – 2046 Background

Figure 15: Site Plan

Figure 16: Sightline Assessment

16A

16B

Figure 17: Site Traffic - Residential

Figure 18: Site Traffic – Commercial

Figure 19: Site Traffic – Total

Figure 20: Traffic Volumes – 2031 Total

Figure 21: Traffic Volumes – 2036 Total

Figure 22: Traffic Volumes – 2041 Total

Figure 23: Traffic Volumes – 2046 Total

Appendix A:
Traffic Counts

Appendix B:
LOS Definitions

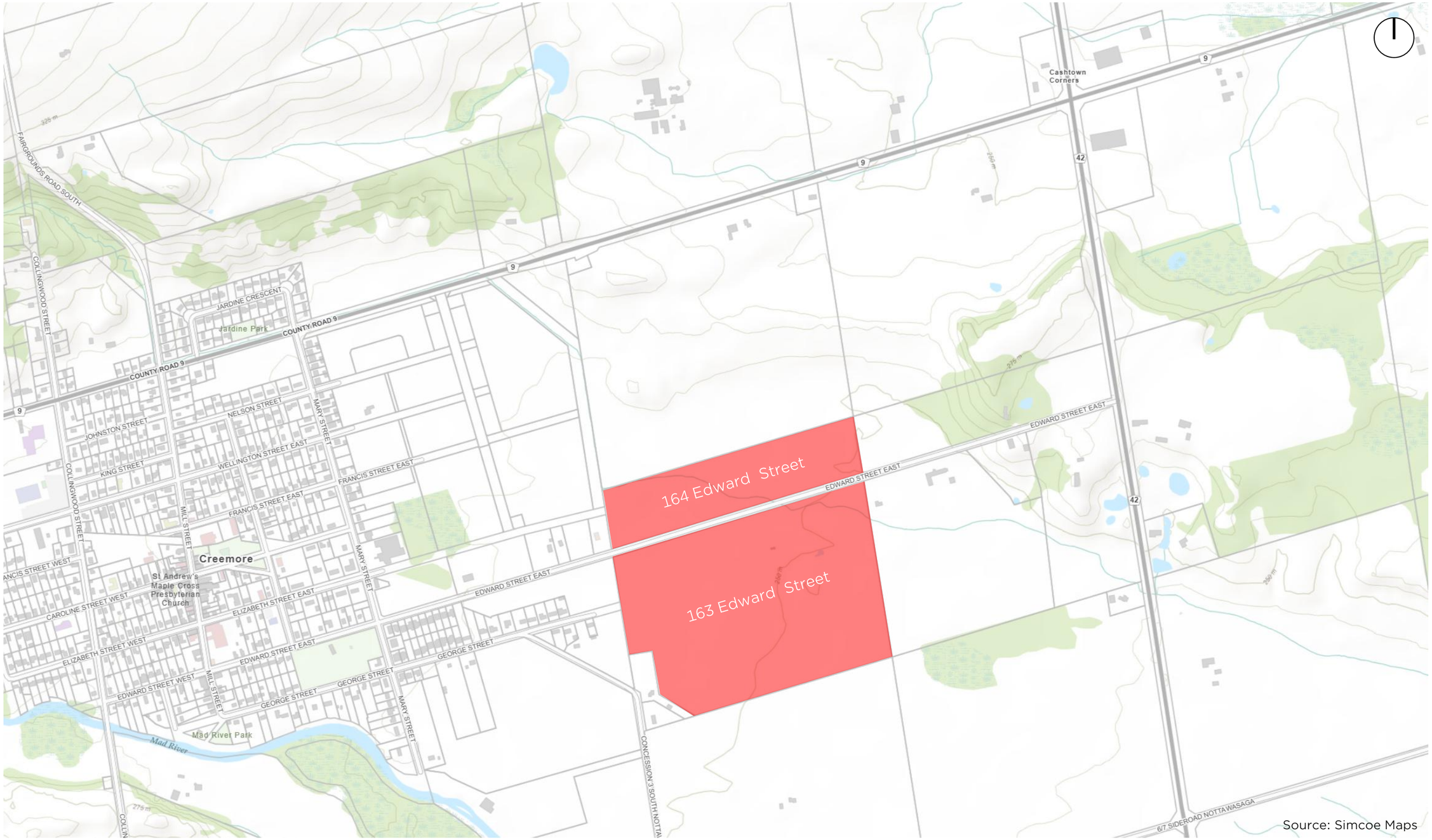
Appendix C:
Existing Condition

Appendix D:
Future Background Conditions

Appendix E:
Future Total Conditions

Appendix F:
Traffic Signal Warrant

Appendix G:
Left Turn Lane Nomographs



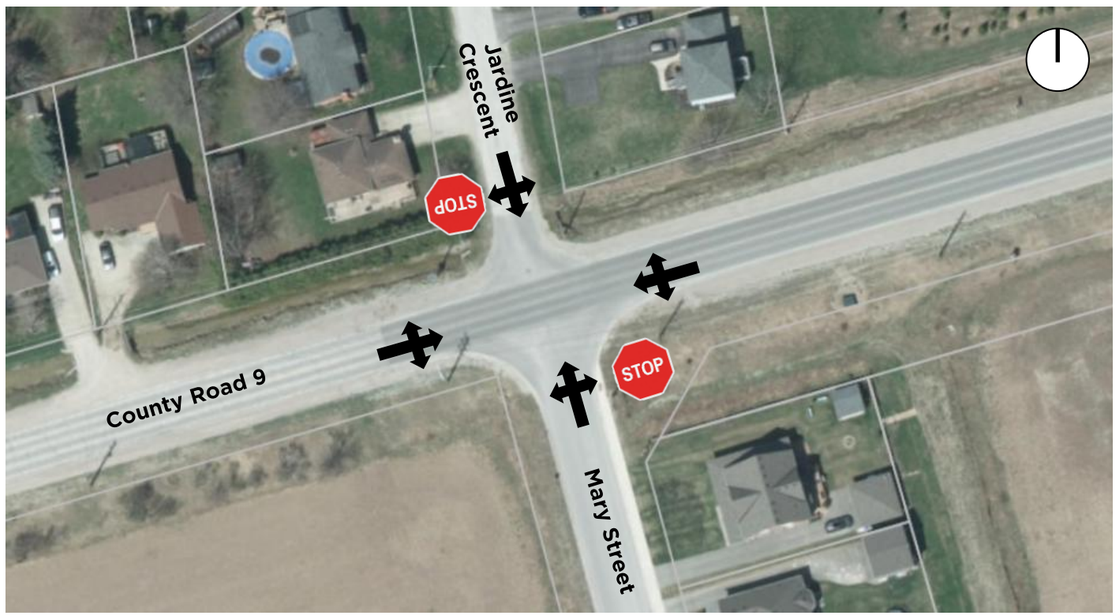
163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 1: Site Location

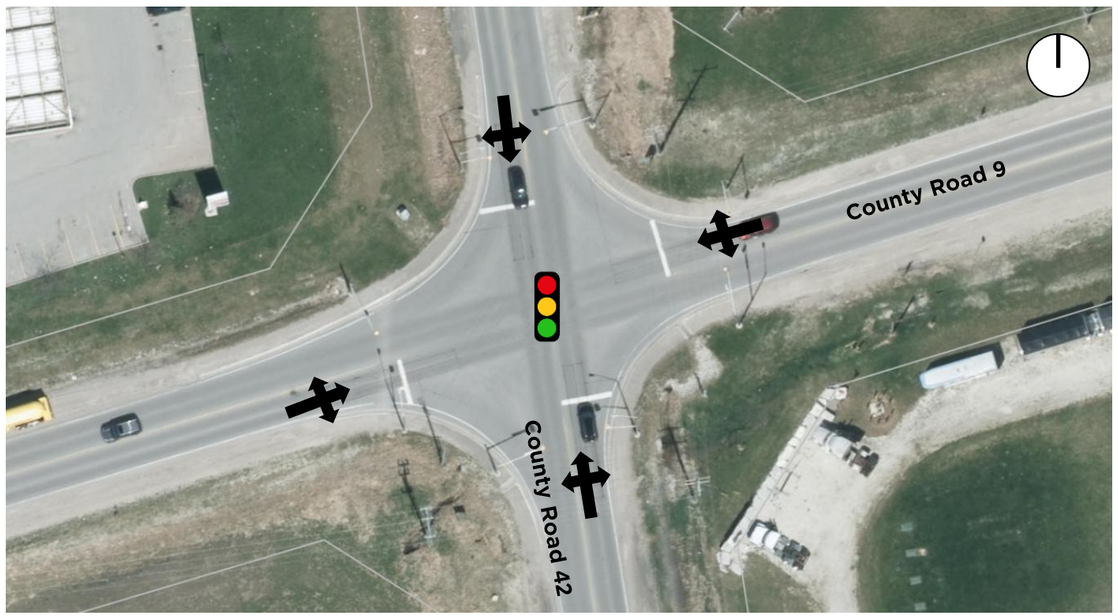


163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

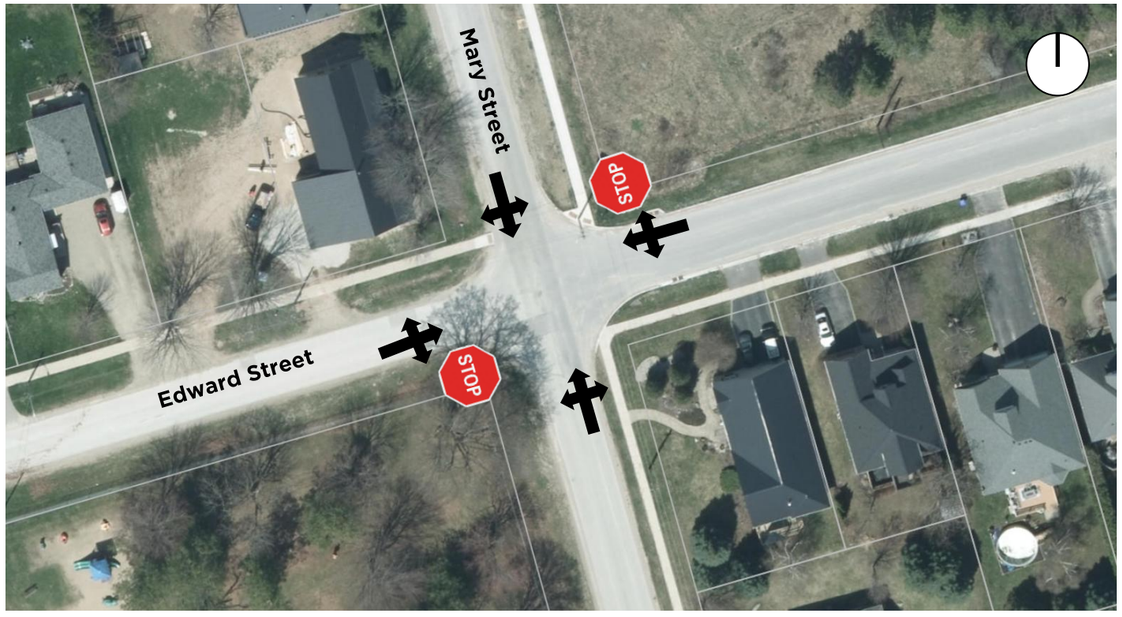
Figure 2A: Area Road Network



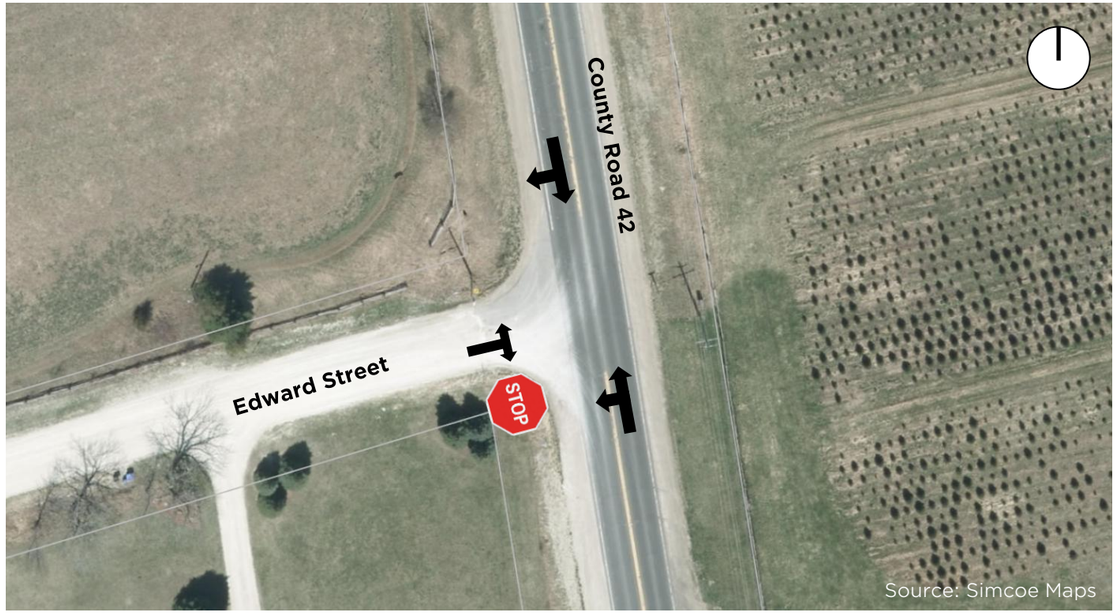
County Road 9, Mary Street & Jardine Crescent



County Road 9 & County Road 42

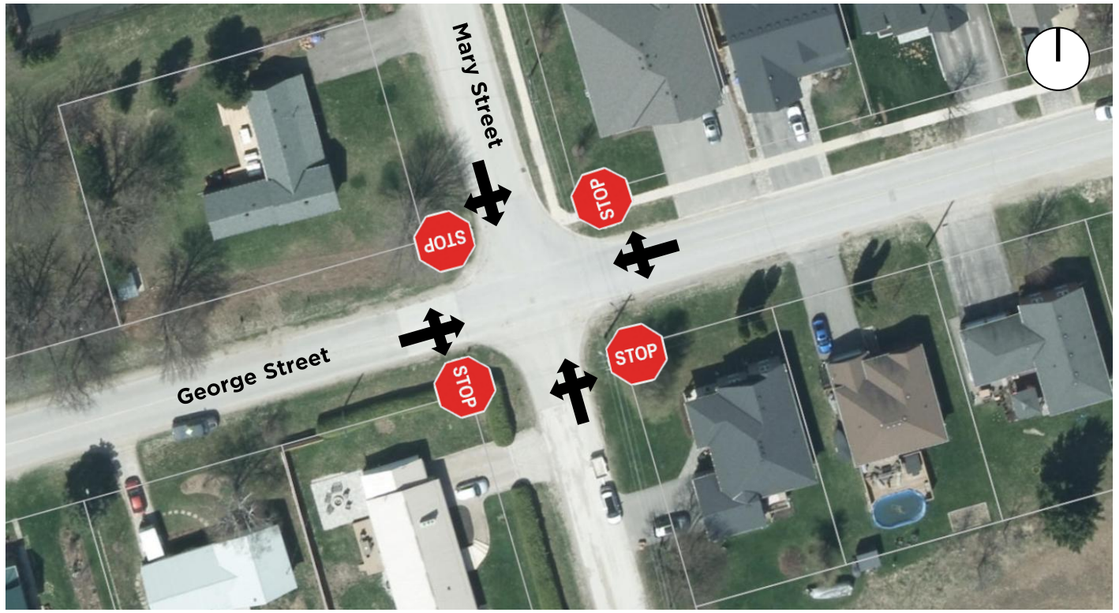


Mary Street & Edward Street

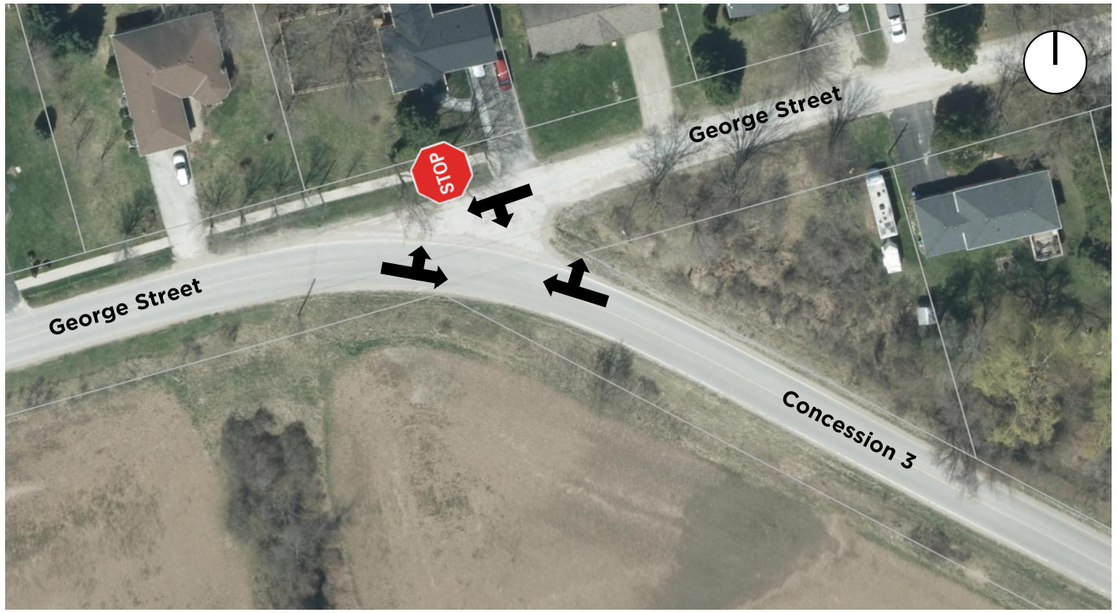


County Road 42 & Edward Street

Figure 3: Study Area Intersections

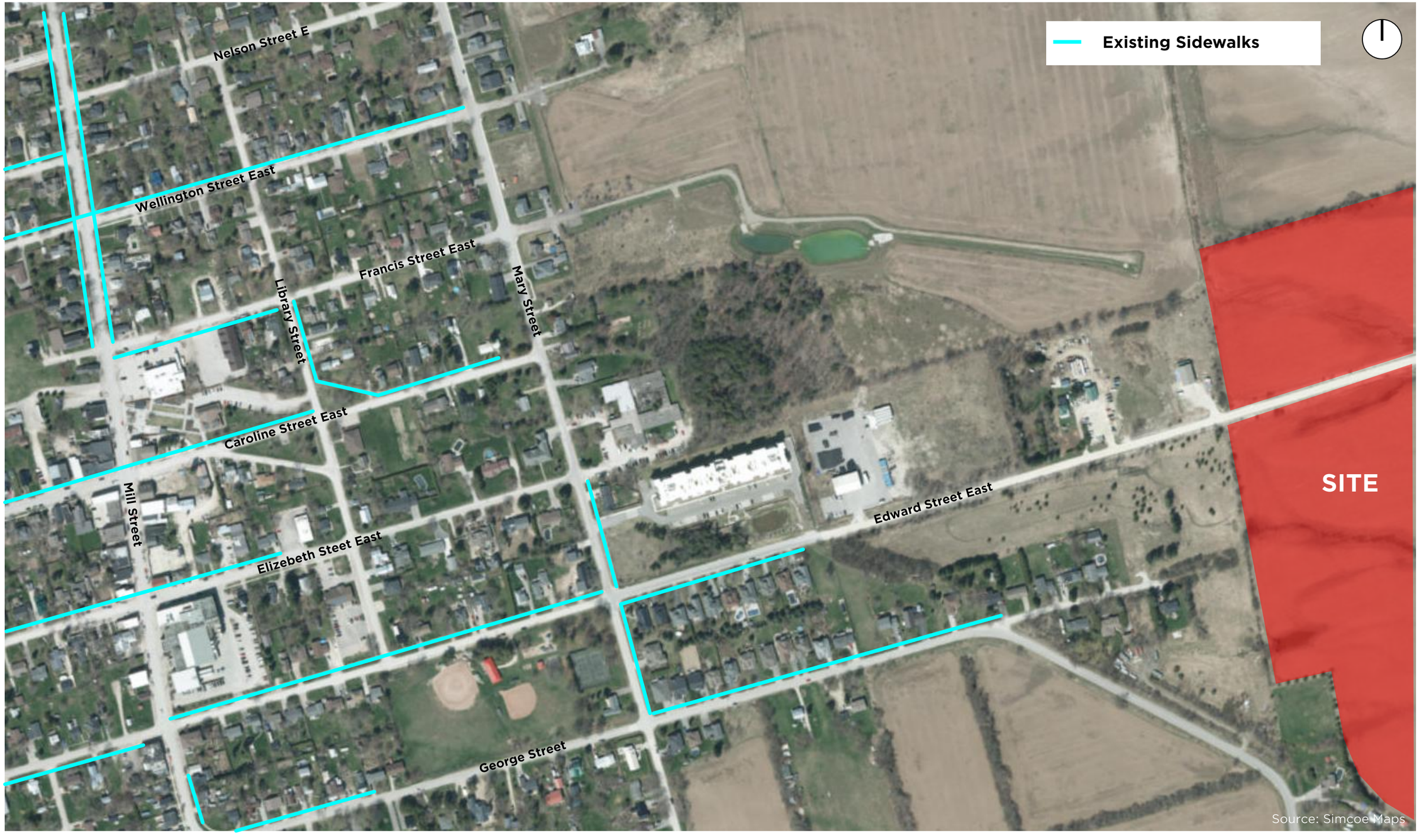


Mary Street & George Street



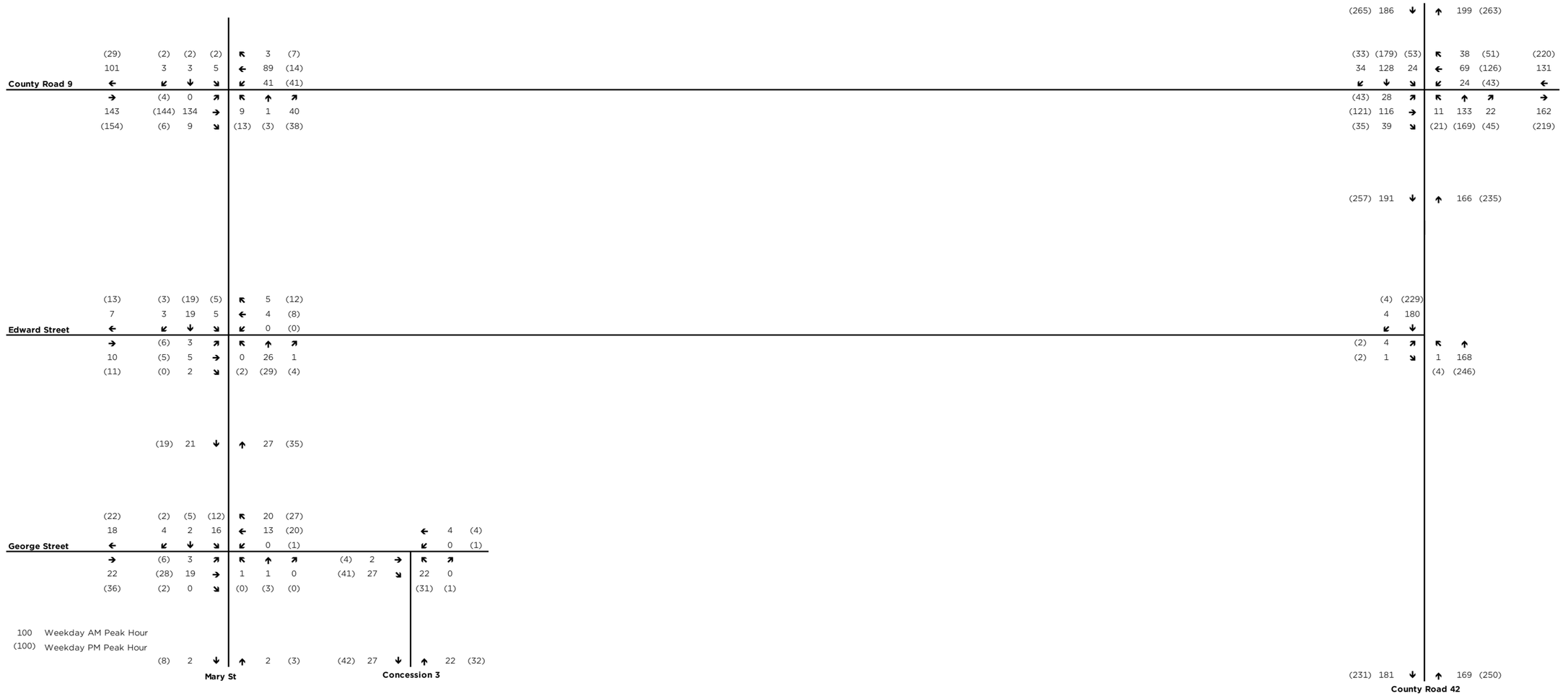
George Street & Concession 3

Figure 3: Study Area Intersections



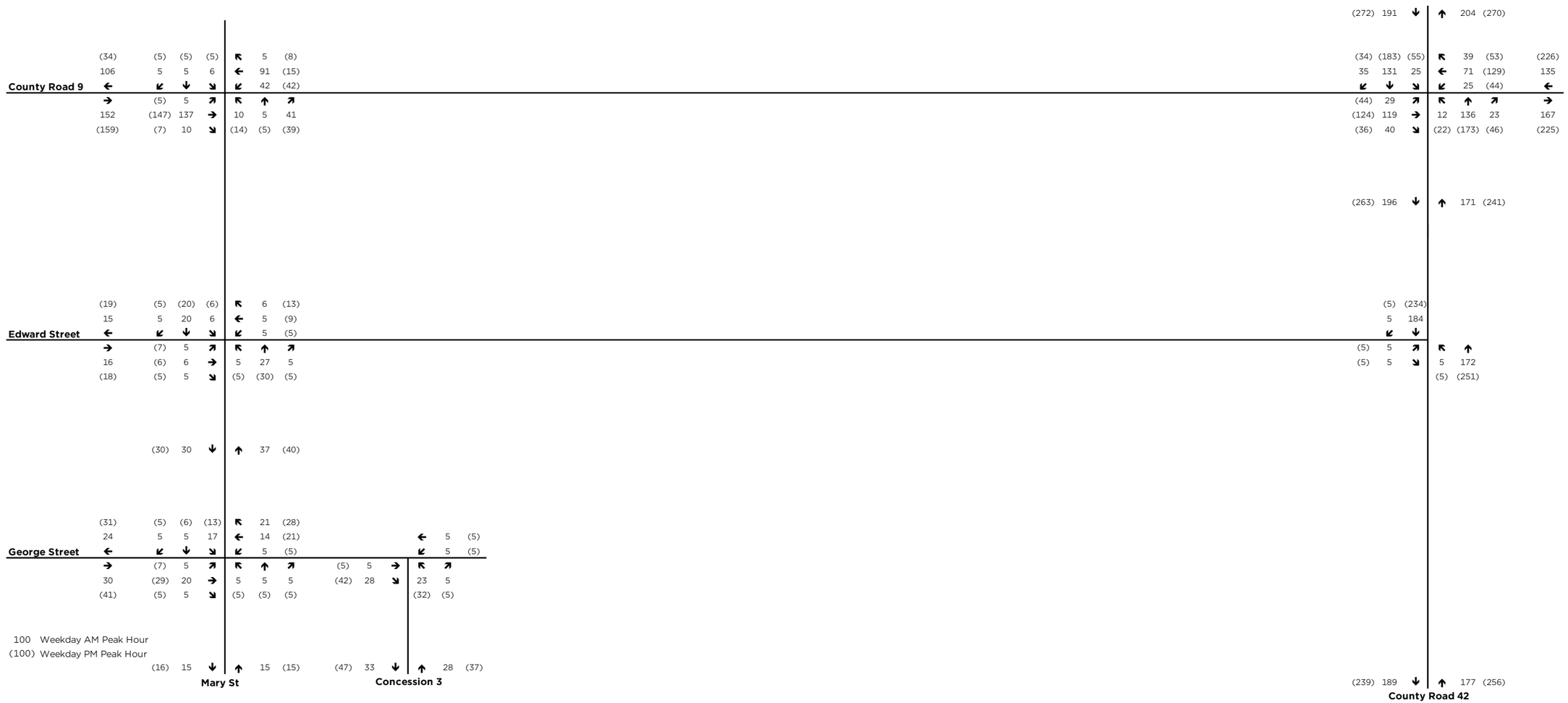
163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 4: Active Transportation Network - Sidewalks



163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 5: Traffic Counts



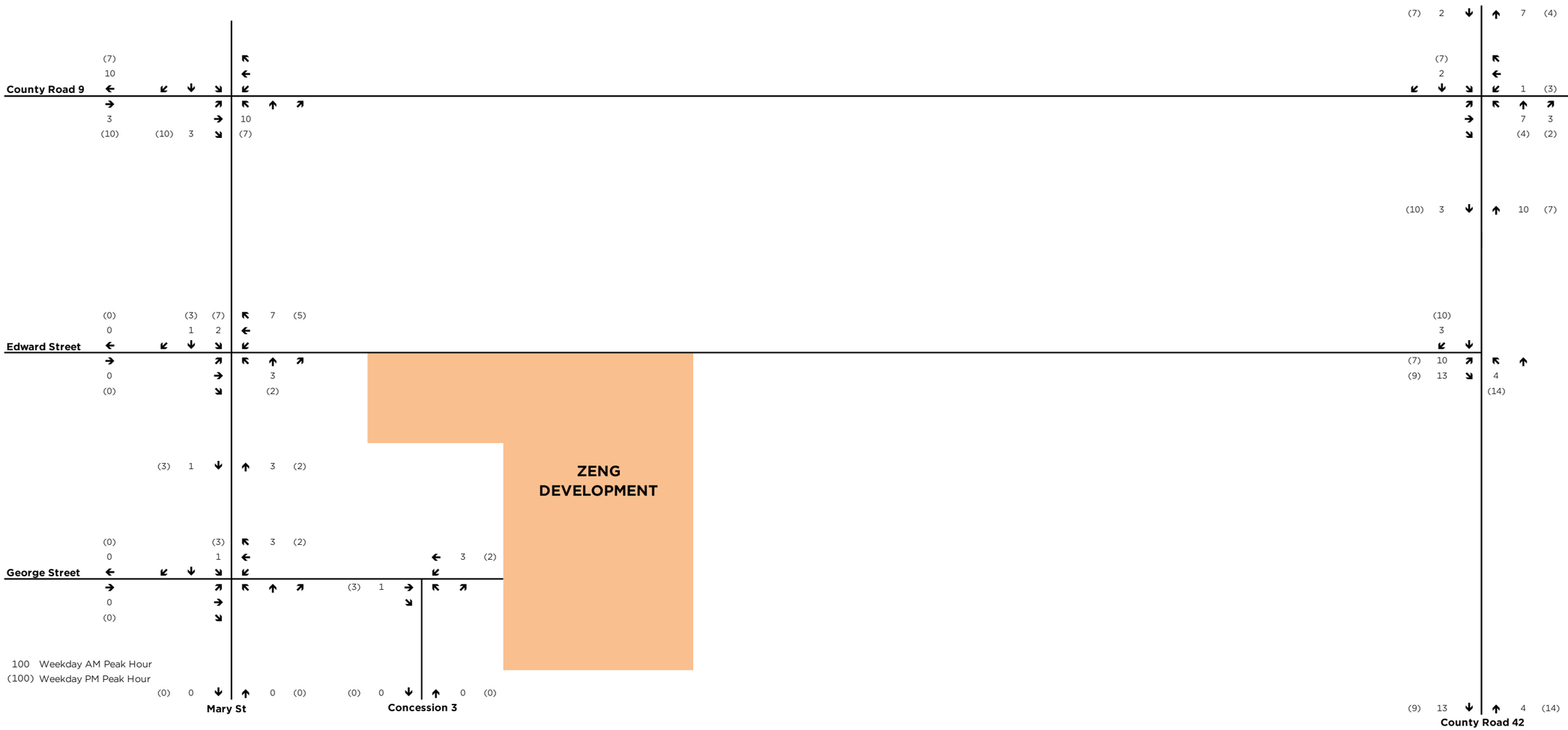
163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 6: Traffic Volume - 2026



163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 7: Background Developments



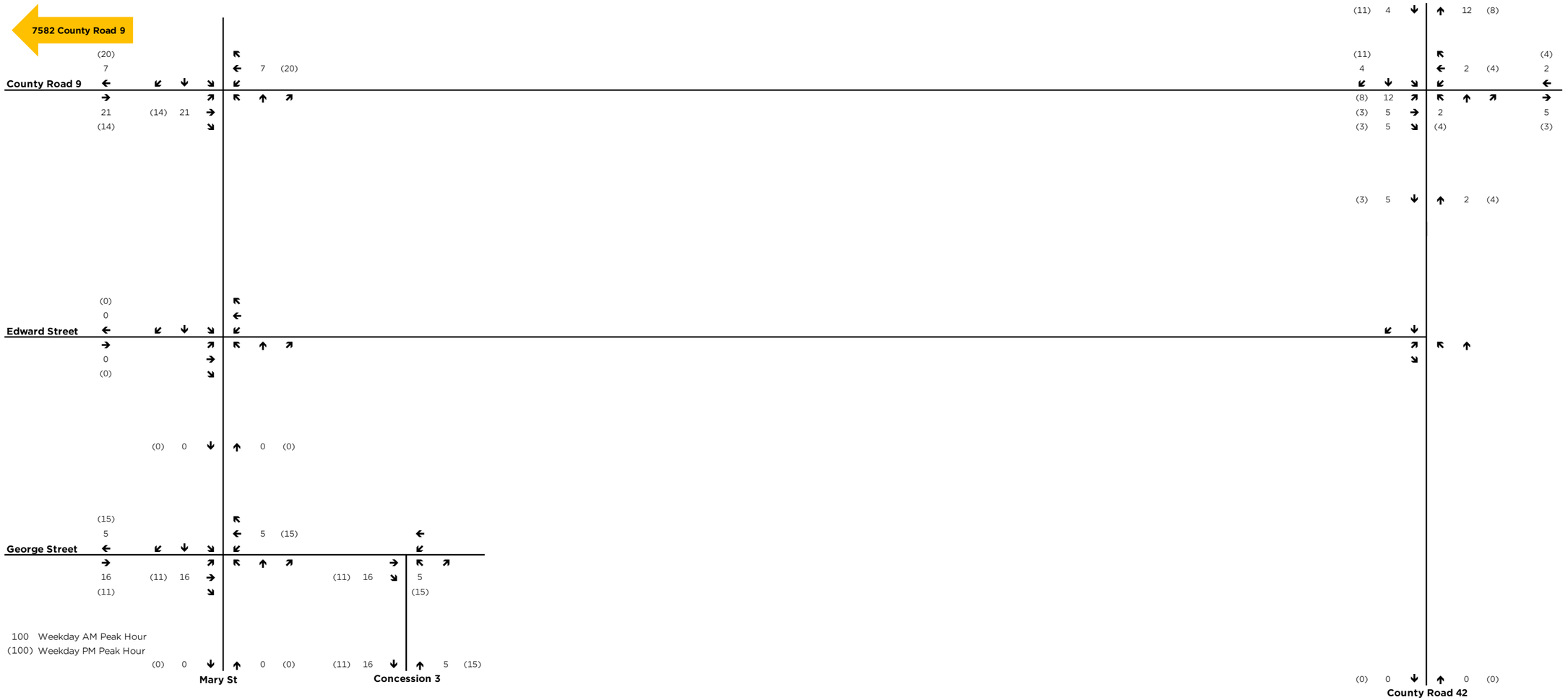
163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 8: Traffic Volume – Zeng Development (Background)



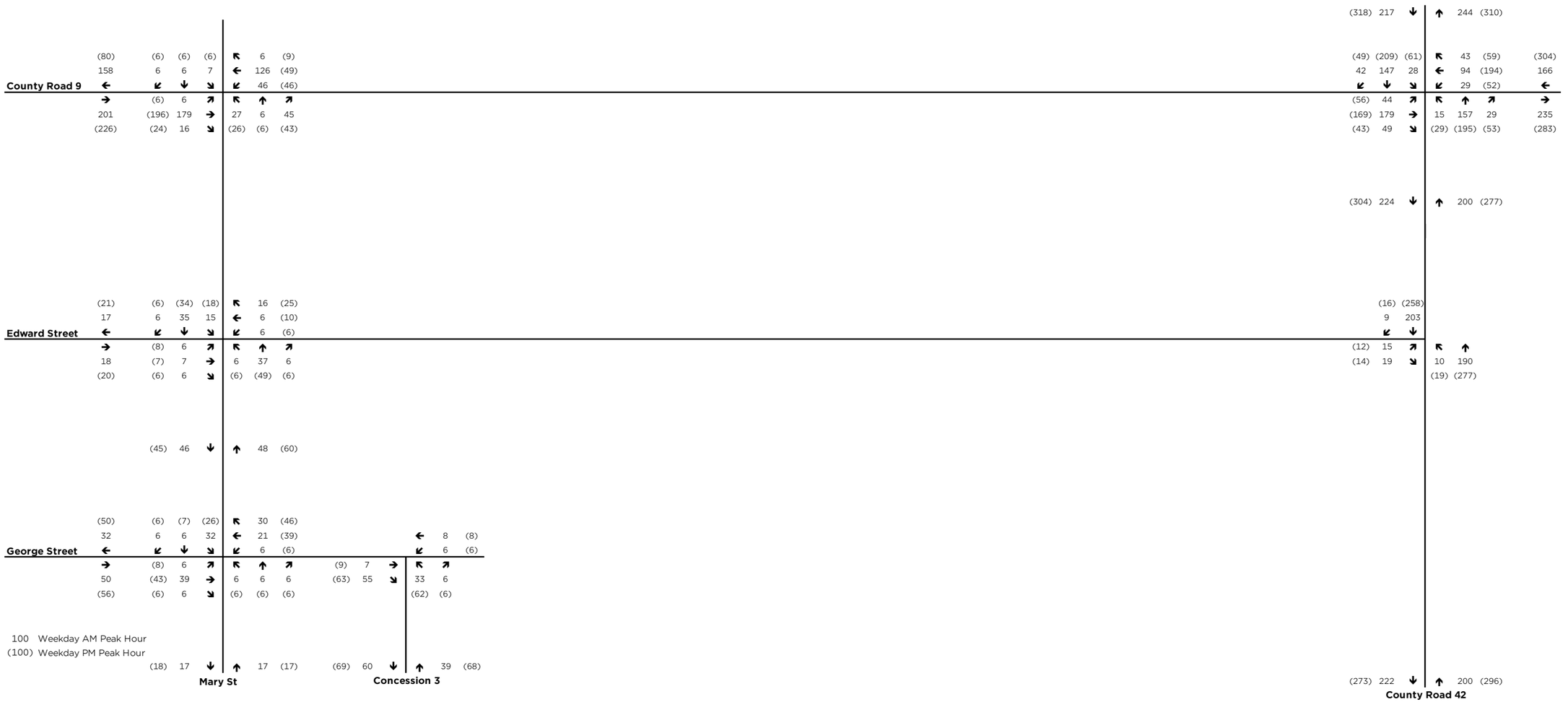
163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 9: Traffic Volume – Tribute Development (Background)



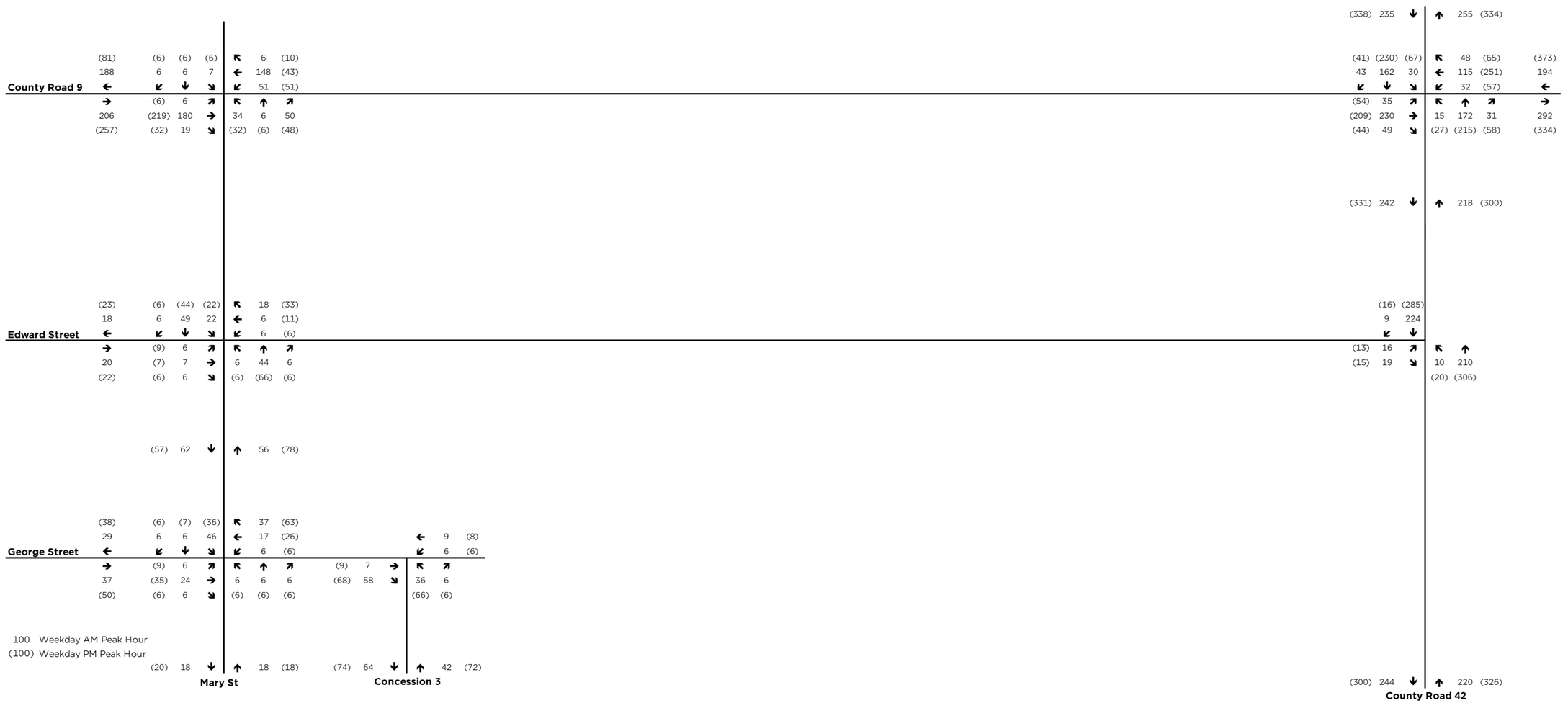
163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 10: Traffic Volume – 7582 County Road 9 (Background)



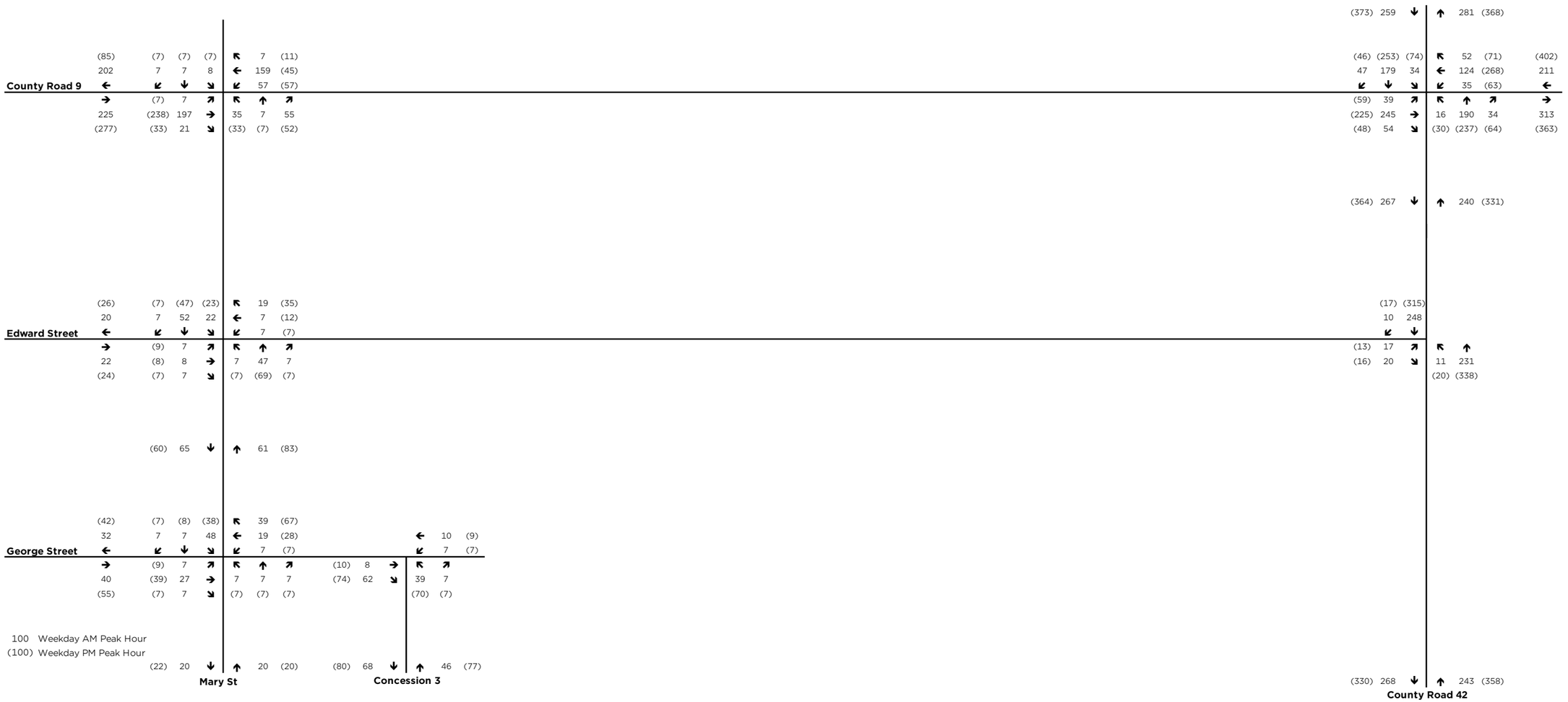
163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 11 Traffic Volumes – 2031 Background



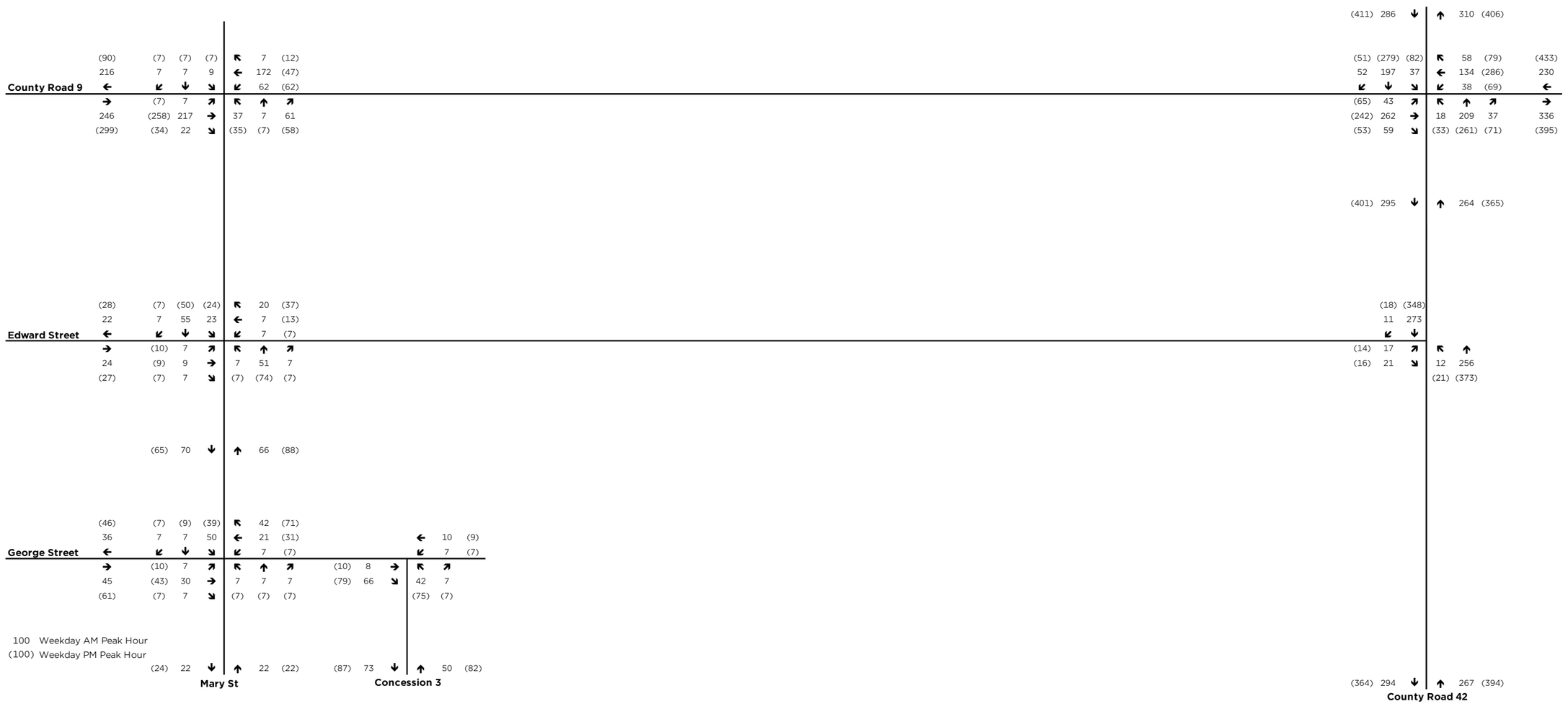
163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 12: Traffic Volumes – 2036 Background



163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 13: Traffic Volumes – 2041 Background



163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 14: Traffic Volumes – 2046 Background



LAND USE SCHEDULE			
DESCRIPTION	LOT / BLOCK	No. OF UNITS	AREA
SINGLE DETACHED (12.2m)	LOT 1 - 94	94	3.563ha
SINGLE DETACHED (9.1m)	LOT 95 - 216	122	3.866ha
SEMI-DETACHED (7.6m)	LOT 217 - 298	164	4.029ha
TOWNHOMES (6.1m)	299 - 347	349	7.171ha
MIXED USE	348 - 352	TBD	0.775ha
HOTEL	353		0.093ha
PARKING	354 - 355		0.364ha
VILLAGE SQUARE / PARK	356 - 359		2.023ha
DRAINAGE	360 - 364		1.878ha
STORMWATER POND	365 - 367		1.765ha
RETAINING WALL	368 - 370		0.094ha
LANEWAY	371 - 391		2.738ha
WALKWAY	392 - 393		0.024ha
ROADS			8.654ha
TOTAL		729	37.04ha

ROAD LENGTH	
20m R.O.W.	1126.5m
18m R.O.W.	3060.0m

MIXED USE FLOOR AREA SCHEDUEL	
TOTAL COMMERCIAL GCA	8,060sq.m
RESIDENTIAL GCA WITHIN MIXED USE BLOCKS (INCLUDING HOTEL ROOMS)	16,119sq.m
TOTAL GCA	24,179sq.m

Figure 15: Site Plan



Looking east on Edward Street from proposed future Street H



Looking west on Edward Street from proposed future Street H



Looking east on Edward Street from proposed future Street L



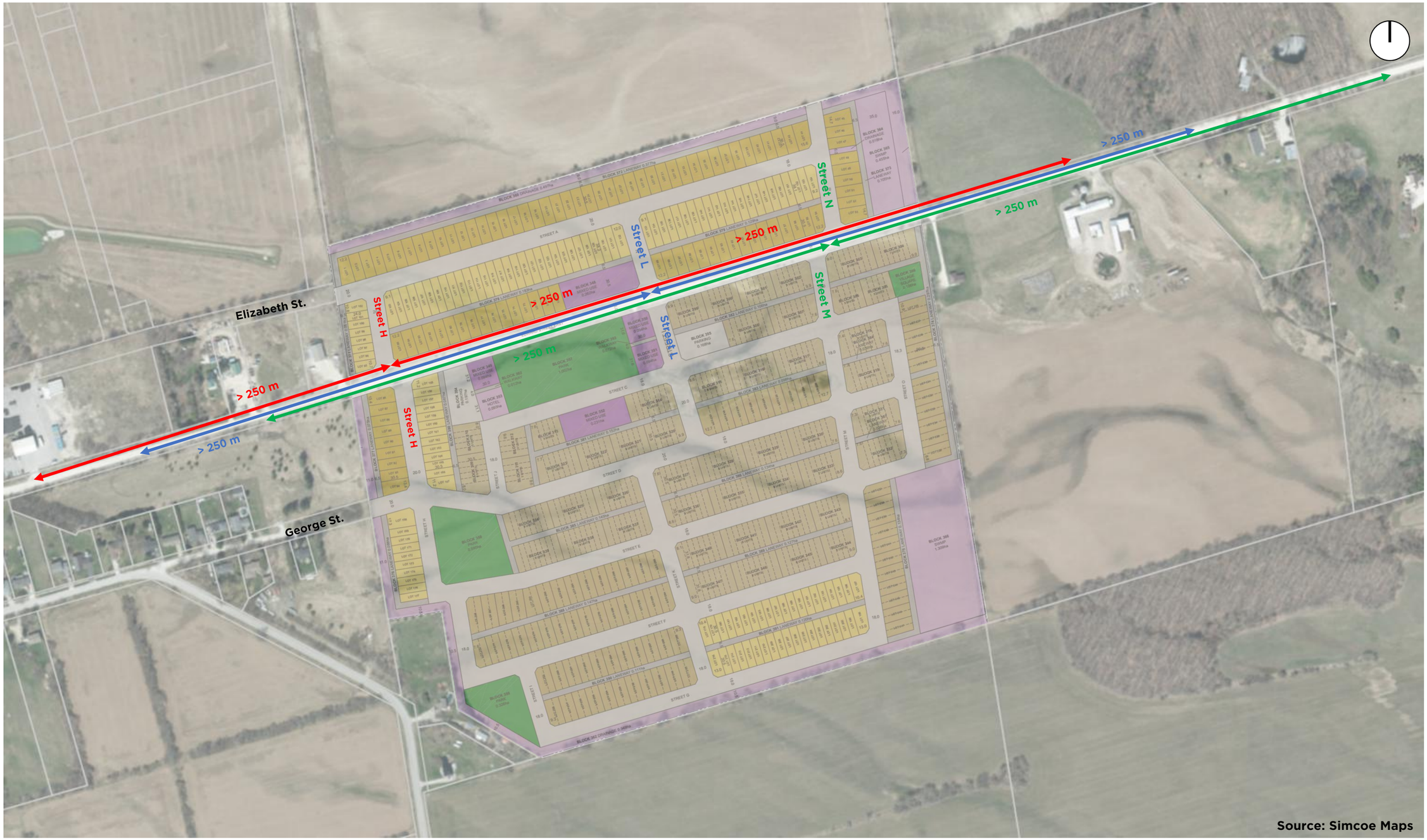
Looking west on Edward Street from proposed future Street L



Looking east on Edward Street from proposed future Streets N & M

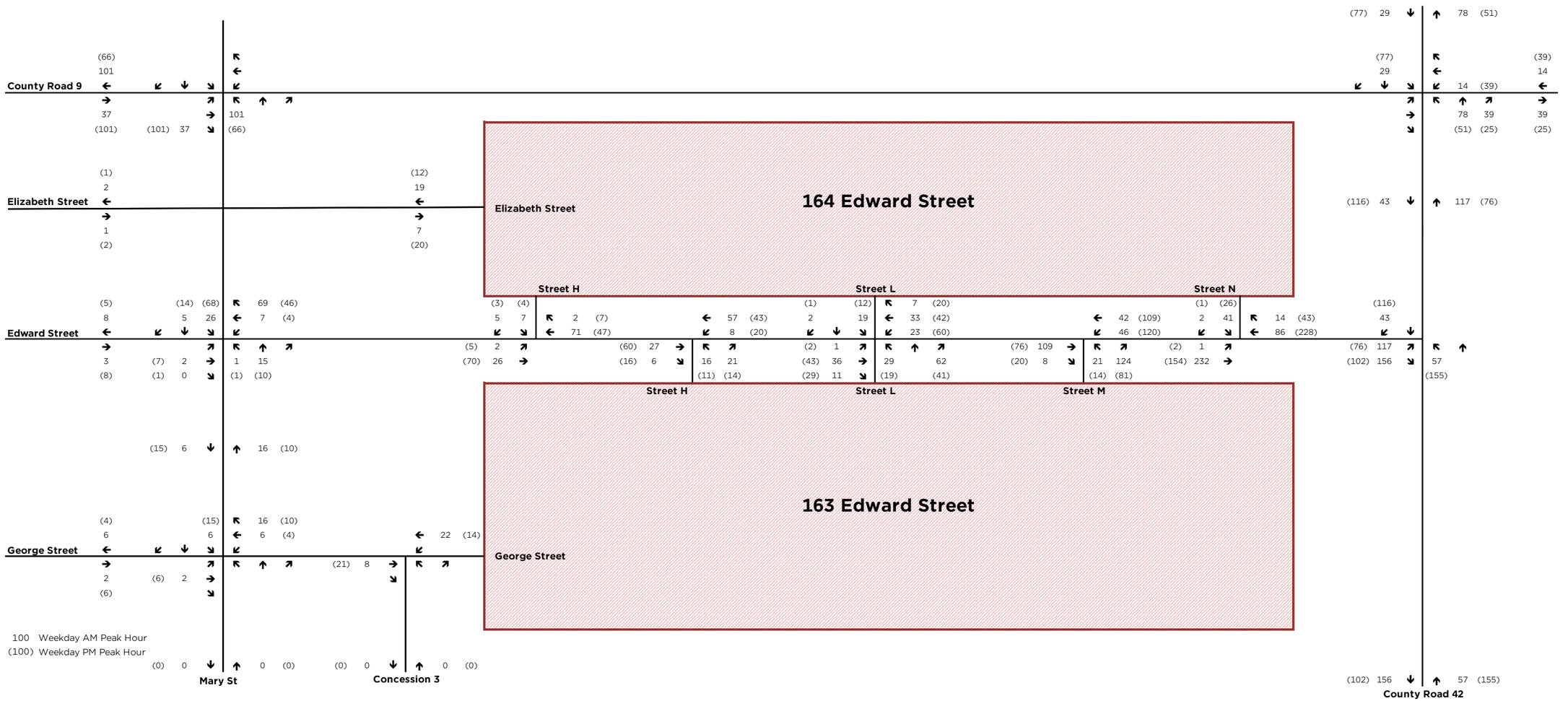


Looking west on Edward Street from proposed future Streets N & M



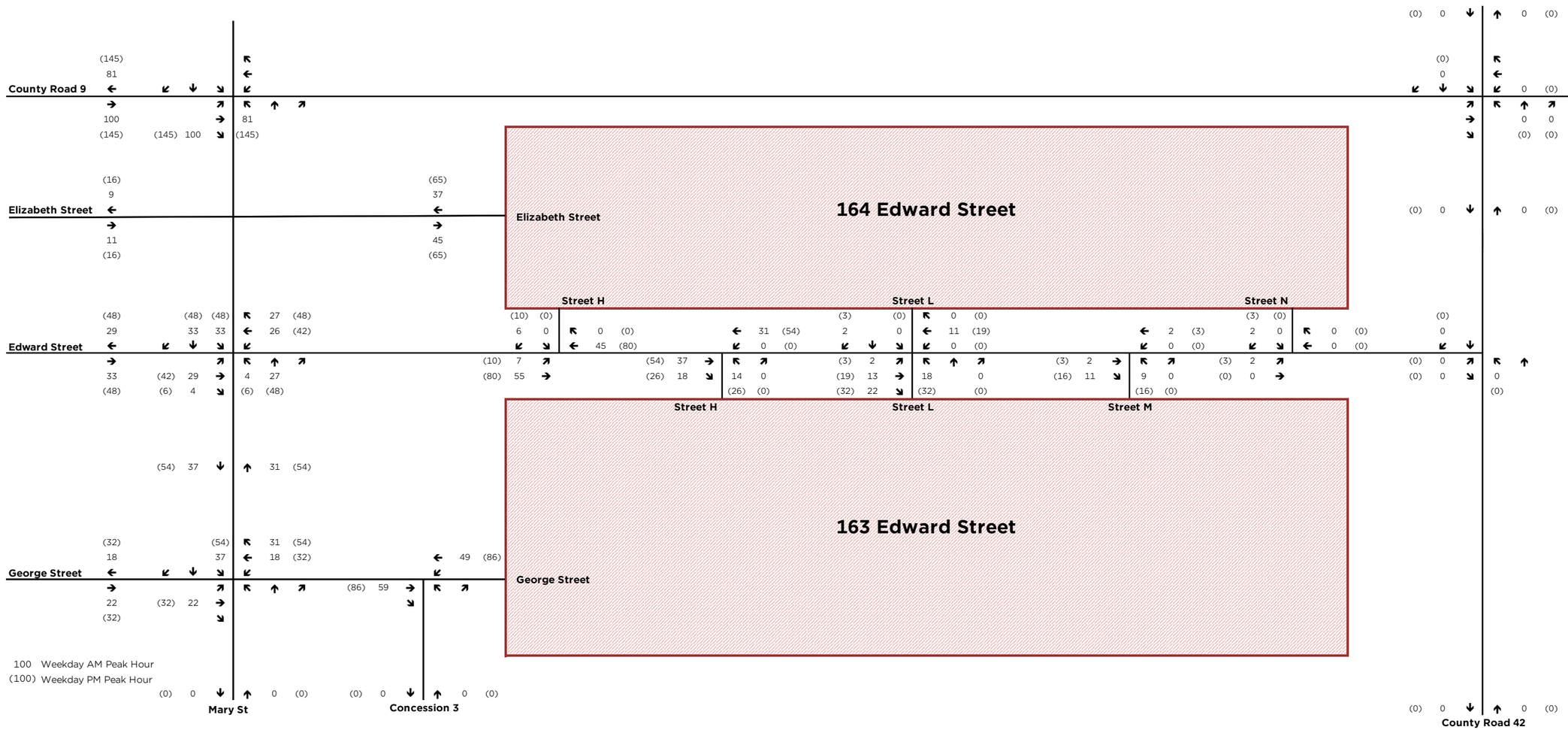
163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 16C: Sightline Assessment



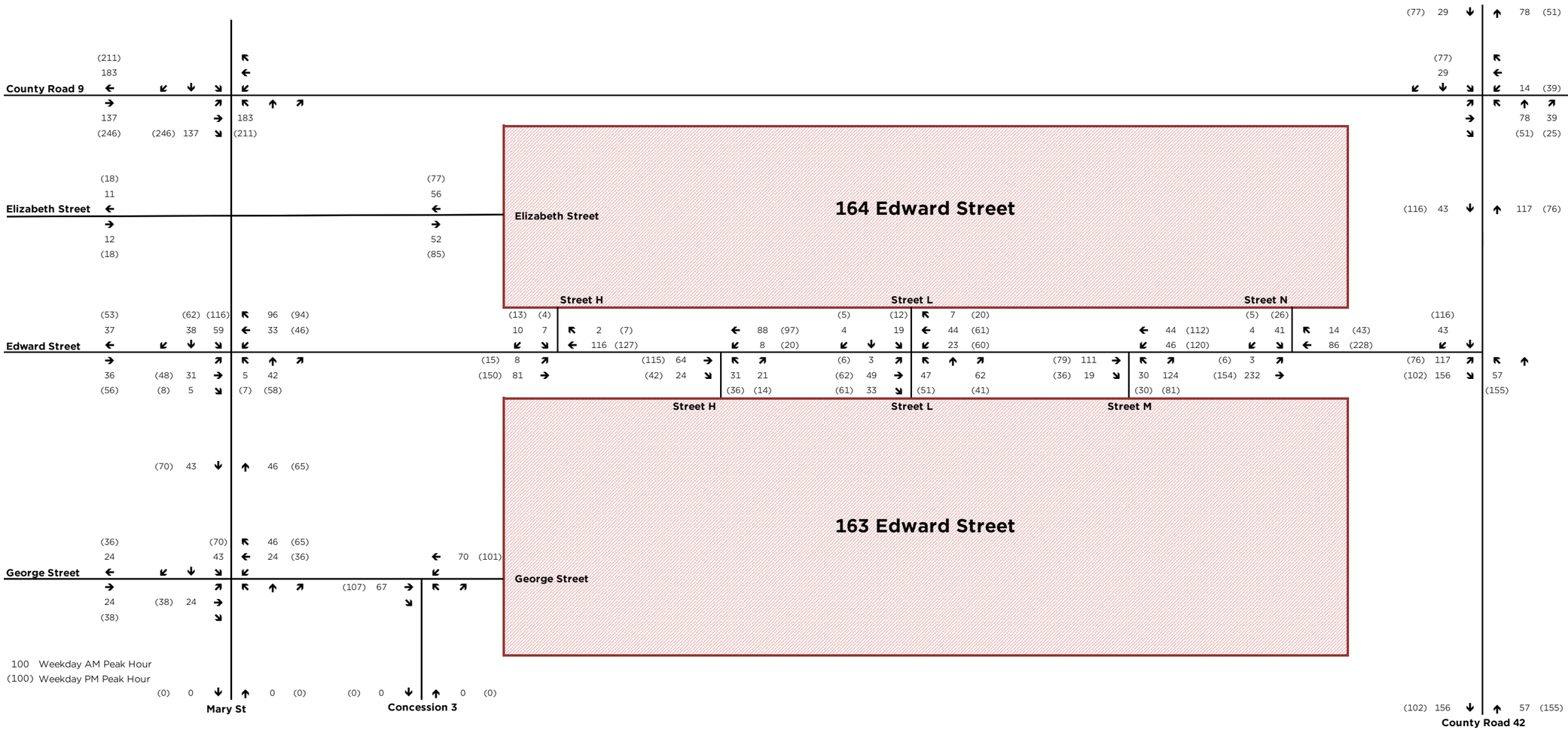
163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 17: Site Traffic - Residential



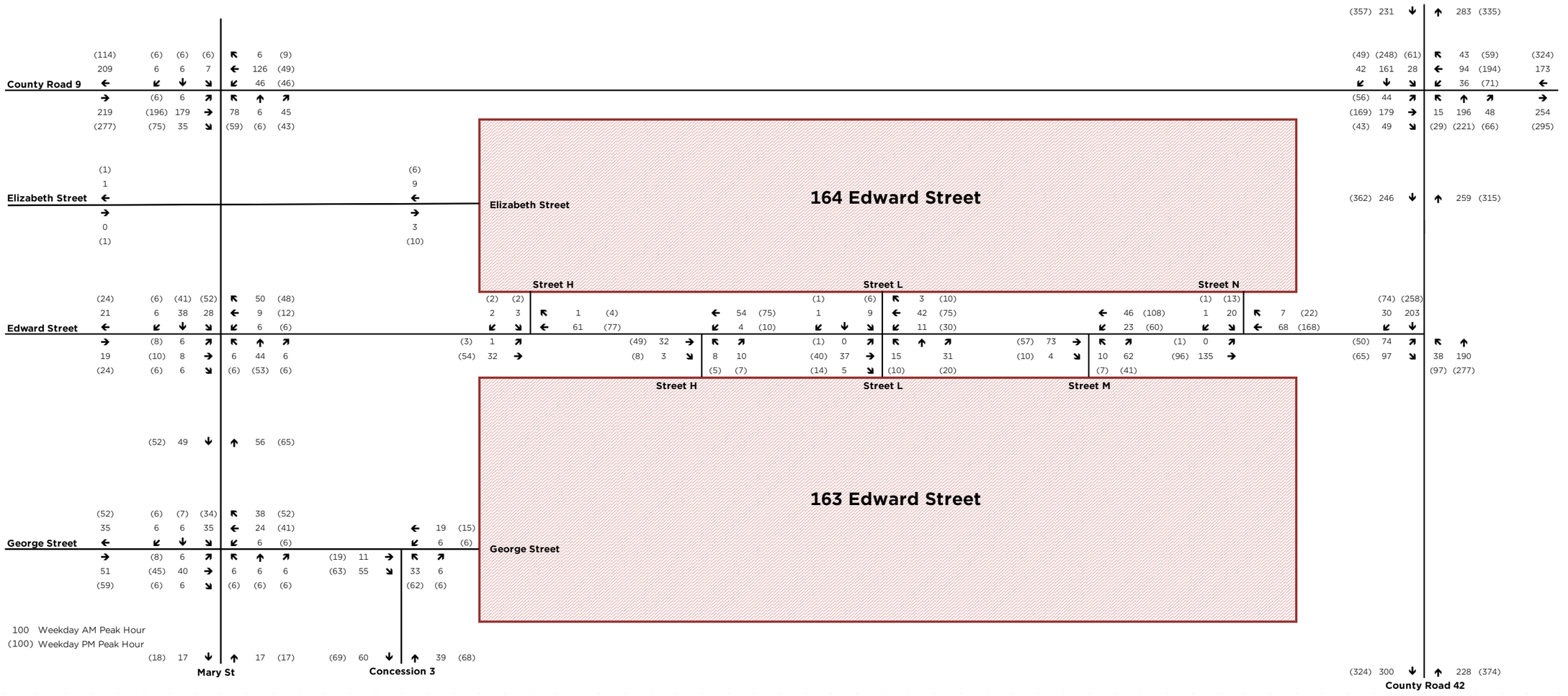
163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 18: Site Traffic - Commercial



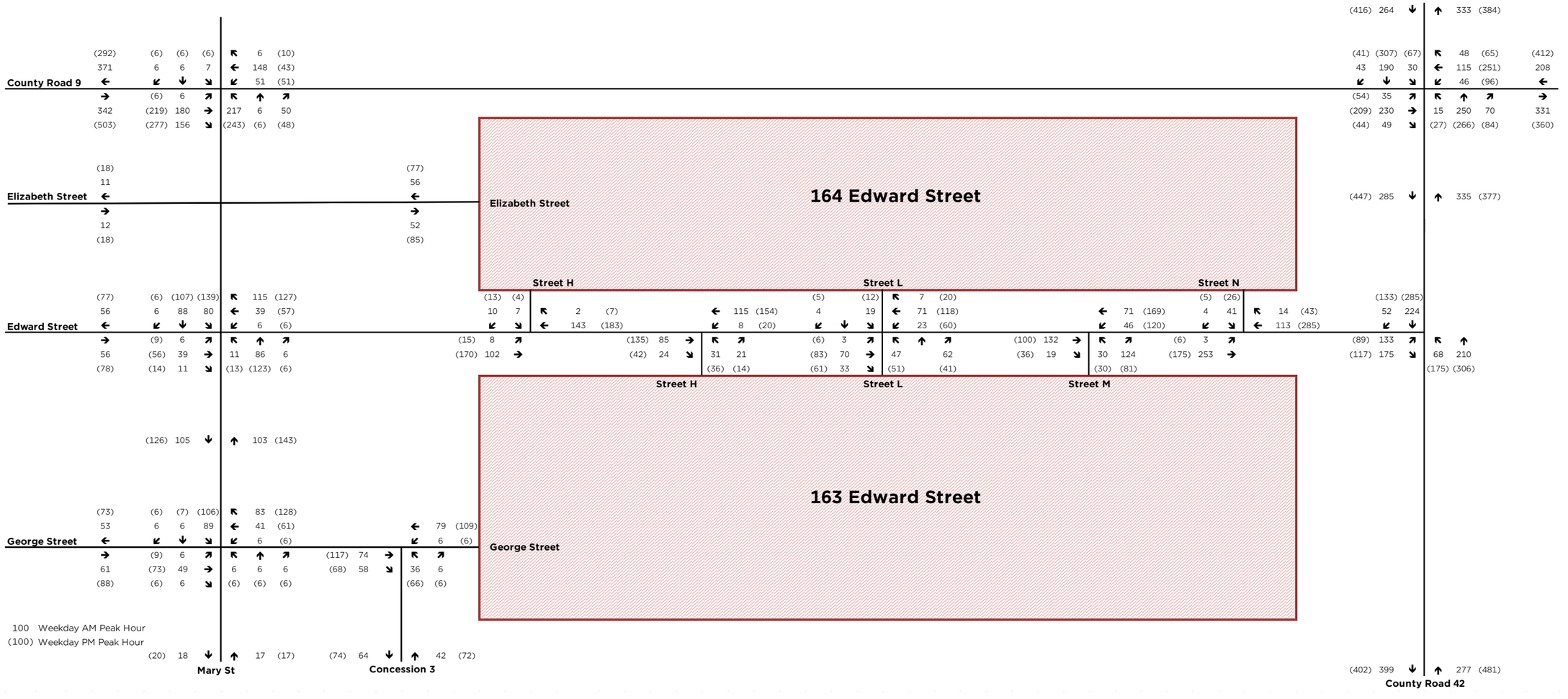
163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 19: Site Traffic - Total



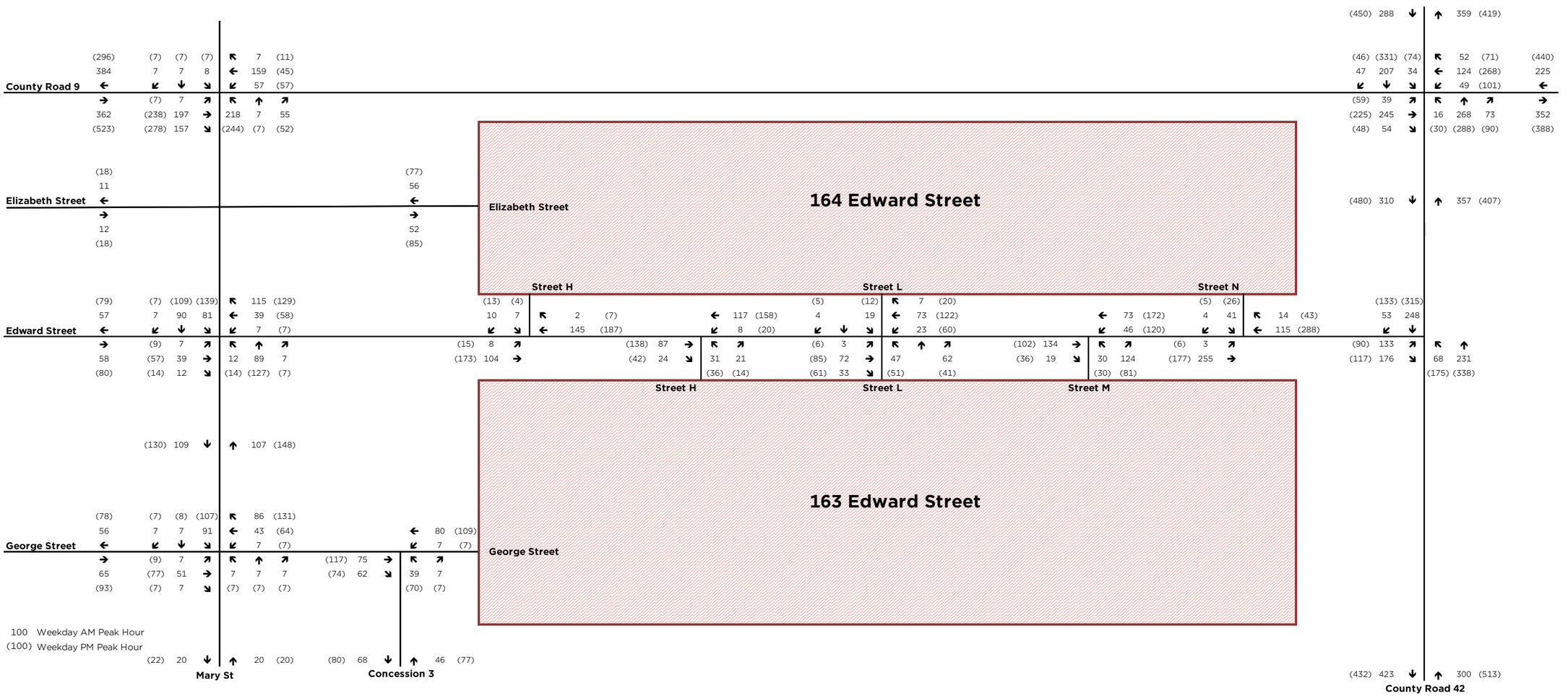
163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 20: Traffic Volumes – 2031 Total



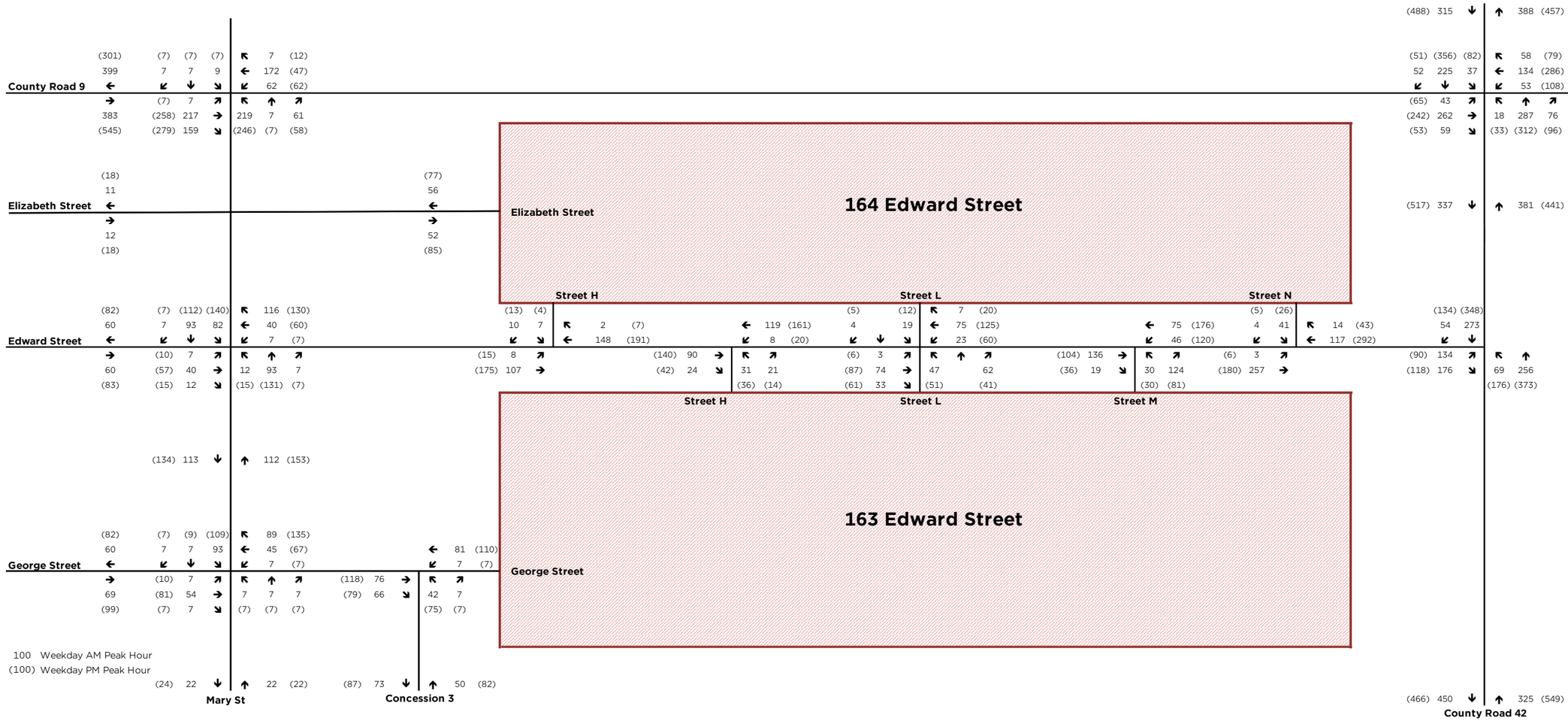
163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 21: Traffic Volumes – 2036 Total



163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 22: Traffic Volumes – 2041 Total



163 & 164 EDWARD STREET EAST – TRANSPORTATION IMPACT STUDY

Figure 23: Traffic Volumes – 2046 Total

Appendix A:
Traffic Counts

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 10:00:00

One Hour Peak
From: 8:00:00
To: 9:00:00

Municipality: Creemore
Site #: 2512100001
Intersection: Mary St & Edward St E
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: Mary St runs N/S

North Leg Total: 61
North Entering: 27
North Peds: 1
Peds Cross: ⋈

Buses	0	0	0	0
Trucks	1	0	0	1
Cars	2	19	5	26
Totals	3	19	5	

Buses	0
Trucks	5
Cars	29
Totals	34

East Leg Total: 20
East Entering: 9
East Peds: 2
Peds Cross: ⧖

Mary St

Buses	Trucks	Cars	Totals
0	1	6	7

Cars	Trucks	Buses	Totals
3	2	0	5
4	0	0	4
0	0	0	0
7	2	0	

Edward St E

N
W E
S

Buses	Trucks	Cars	Totals
0	1	2	3
0	0	5	5
0	0	2	2
0	1	9	

Edward St E

Cars	Trucks	Buses	Totals
11	0	0	11

Mary St

Peds Cross: ⧖
West Peds: 1
West Entering: 10
West Leg Total: 17

Cars	21
Trucks	0
Buses	0
Totals	21

Cars	0	24	1	25
Trucks	0	2	0	2
Buses	0	0	0	0
Totals	0	26	1	

Peds Cross: ⋈
South Peds: 12
South Entering: 27
South Leg Total: 48

Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 16:15:00
To: 17:15:00

Municipality: Creemore
Site #: 2512100001
Intersection: Mary St & Edward St E
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: Mary St runs N/S

North Leg Total: 74
North Entering: 27
North Peds: 0
Peds Cross: ⋈

Buses	0	0	0	0
Trucks	0	0	0	0
Cars	3	19	5	27
Totals	3	19	5	

Buses	0
Trucks	0
Cars	47
Totals	47

East Leg Total: 34
East Entering: 20
East Peds: 3
Peds Cross: ⧖

Mary St

Buses	Trucks	Cars	Totals
0	0	13	13

Cars	Trucks	Buses	Totals
12	0	0	12
8	0	0	8
0	0	0	0
20	0	0	

Edward St E

N
W E
S

Buses	Trucks	Cars	Totals
0	0	6	6
0	0	5	5
0	0	0	0
0	0	11	

Edward St E

Cars	Trucks	Buses	Totals
14	0	0	14

Mary St

Peds Cross: ⧖
West Peds: 0
West Entering: 11
West Leg Total: 24

Cars	19
Trucks	0
Buses	0
Totals	19

Cars	2	29	4	35
Trucks	0	0	0	0
Buses	0	0	0	0
Totals	2	29	4	

Peds Cross: ⋈
South Peds: 1
South Entering: 35
South Leg Total: 54

Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Total Count Diagram

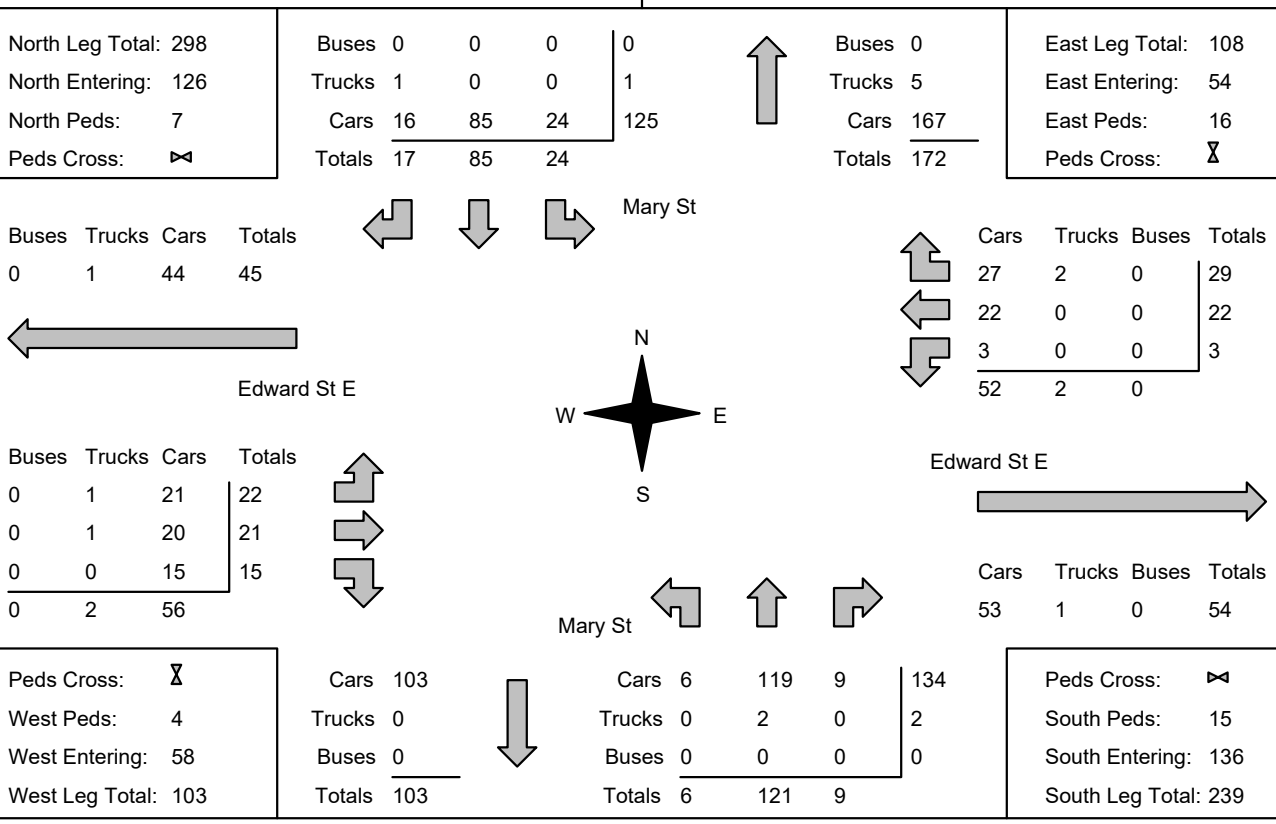
Municipality: Creemore
Site #: 2512100001
Intersection: Mary St & Edward St E
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: Mary St runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: Mary St & Edward St E | **Count Date:** 29-Jul-25 | **Municipality:** Creemore

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*7*	*5*	*0*	*12*	*2*
9:00:00	*5*	*19*	*3*	*27*	*1*
10:00:00	*0*	*11*	*1*	*12*	*3*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*4*	*21*	*6*	*31*	*0*
17:00:00	*5*	*18*	*4*	*27*	*0*
18:00:00	*3*	*11*	*3*	*17*	*1*
Totals:	24	85	17	126	7

North/South Total Approaches: *262*

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*7*	*1*	*8*	*0*
9:00:00	*0*	*26*	*1*	*27*	*12*
10:00:00	*1*	*17*	*0*	*18*	*2*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*0*	*25*	*1*	*26*	*0*
17:00:00	*2*	*28*	*5*	*35*	*1*
18:00:00	*3*	*18*	*1*	*22*	*0*
S Totals:	6	121	9	136	15

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*2*	*1*	*2*	*5*	*1*
9:00:00	*0*	*4*	*5*	*9*	*2*
10:00:00	*0*	*3*	*4*	*7*	*10*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*1*	*4*	*4*	*9*	*0*
17:00:00	*0*	*6*	*9*	*15*	*2*
18:00:00	*0*	*4*	*5*	*9*	*1*
Totals:	3	22	29	54	16

East/West Total Approaches: *112*

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*1*	*2*	*2*	*5*	*2*
9:00:00	*3*	*5*	*2*	*10*	*1*
10:00:00	*4*	*1*	*3*	*8*	*1*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*5*	*6*	*4*	*15*	*0*
17:00:00	*4*	*5*	*2*	*11*	*0*
18:00:00	*5*	*2*	*2*	*9*	*0*
W Totals:	22	21	15	58	4

Calculated Values for Traffic Crossing Major Street

Hours Ending:	*7:00*	*8:00*	*9:00*	*10:00*	*15:00*	*16:00*	*17:00*	*18:00*
Crossing Values:	*0*	*7*	*21*	*12*	*0*	*12*	*11*	*10*

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100001

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Buses - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	4	2	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
8:00:00	7	3	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1
8:15:00	10	3	7	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	0
8:30:00	11	1	13	6	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	1
8:45:00	11	0	21	8	1	1	0	0	0	0	1	0	0	0	0	0	0	0	3	0
9:00:00	12	1	24	3	2	1	0	0	0	0	1	0	0	0	0	0	0	0	3	0
9:15:00	12	0	27	3	3	1	0	0	0	0	1	0	0	0	0	0	0	0	3	0
9:30:00	12	0	30	3	3	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0
9:45:00	12	0	32	2	3	0	0	0	0	0	1	0	0	0	0	0	0	0	4	1
10:00:00	12	0	35	3	3	0	0	0	0	0	1	0	0	0	0	0	0	0	6	2
10:15:00	12	0	35	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	6	0
15:00:00	12	0	35	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	6	0
15:15:00	12	0	38	3	4	1	0	0	0	0	1	0	0	0	0	0	0	0	6	0
15:30:00	12	0	45	7	4	0	0	0	0	0	1	0	0	0	0	0	0	0	6	0
15:45:00	14	2	51	6	6	2	0	0	0	0	1	0	0	0	0	0	0	0	6	0
16:00:00	16	2	56	5	9	3	0	0	0	0	1	0	0	0	0	0	0	0	6	0
16:15:00	17	1	58	2	11	2	0	0	0	0	1	0	0	0	0	0	0	0	6	0
16:30:00	19	2	64	6	12	1	0	0	0	0	1	0	0	0	0	0	0	0	6	0
16:45:00	19	0	69	5	12	0	0	0	0	0	1	0	0	0	0	0	0	0	6	0
17:00:00	21	2	74	5	13	1	0	0	0	0	1	0	0	0	0	0	0	0	6	0
17:15:00	22	1	77	3	14	1	0	0	0	0	1	0	0	0	0	0	0	0	6	0
17:30:00	22	0	81	4	15	1	0	0	0	0	1	0	0	0	0	0	0	0	6	0
17:45:00	23	1	82	1	16	1	0	0	0	0	1	0	0	0	0	0	0	0	6	0
18:00:00	24	1	85	3	16	0	0	0	0	0	1	0	0	0	0	0	0	0	7	1
18:15:00	24	0	85	0	16	0	0	0	0	0	1	0	0	0	0	0	0	0	7	0
18:15:15	24	0	85	0	16	0	0	0	0	0	1	0	0	0	0	0	0	0	7	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100001

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Buses - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
7:45:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:00:00	2	2	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:15:00	2	0	1	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:30:00	2	0	4	3	3	0	0	0	0	0	2	2	0	0	0	0	0	0	3	2
8:45:00	2	0	4	0	4	1	0	0	0	0	2	0	0	0	0	0	0	0	3	0
9:00:00	2	0	5	1	5	1	0	0	0	0	2	0	0	0	0	0	0	0	3	0
9:15:00	2	0	5	0	5	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0
9:30:00	2	0	7	2	6	1	0	0	0	0	2	0	0	0	0	0	0	0	7	4
9:45:00	2	0	8	1	7	1	0	0	0	0	2	0	0	0	0	0	0	0	9	2
10:00:00	2	0	8	0	9	2	0	0	0	0	2	0	0	0	0	0	0	0	13	4
10:15:00	2	0	8	0	9	0	0	0	0	0	2	0	0	0	0	0	0	0	13	0
15:00:00	2	0	8	0	9	0	0	0	0	0	2	0	0	0	0	0	0	0	13	0
15:15:00	3	1	10	2	10	1	0	0	0	0	2	0	0	0	0	0	0	0	13	0
15:30:00	3	0	12	2	11	1	0	0	0	0	2	0	0	0	0	0	0	0	13	0
15:45:00	3	0	12	0	12	1	0	0	0	0	2	0	0	0	0	0	0	0	13	0
16:00:00	3	0	12	0	13	1	0	0	0	0	2	0	0	0	0	0	0	0	13	0
16:15:00	3	0	12	0	14	1	0	0	0	0	2	0	0	0	0	0	0	0	13	0
16:30:00	3	0	14	2	18	4	0	0	0	0	2	0	0	0	0	0	0	0	13	0
16:45:00	3	0	15	1	21	3	0	0	0	0	2	0	0	0	0	0	0	0	13	0
17:00:00	3	0	18	3	22	1	0	0	0	0	2	0	0	0	0	0	0	0	15	2
17:15:00	3	0	20	2	26	4	0	0	0	0	2	0	0	0	0	0	0	0	16	1
17:30:00	3	0	21	1	26	0	0	0	0	0	2	0	0	0	0	0	0	0	16	0
17:45:00	3	0	22	1	27	1	0	0	0	0	2	0	0	0	0	0	0	0	16	0
18:00:00	3	0	22	0	27	0	0	0	0	0	2	0	0	0	0	0	0	0	16	0
18:15:00	3	0	22	0	27	0	0	0	0	0	2	0	0	0	0	0	0	0	16	0
18:15:15	3	0	22	0	27	0	0	0	0	0	2	0	0	0	0	0	0	0	16	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100001

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Buses - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	7	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	13	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	18	5	1	0	0	0	1	1	0	0	0	0	0	0	0	0	5	5
8:45:00	0	0	23	5	1	0	0	0	2	1	0	0	0	0	0	0	0	0	11	6
9:00:00	0	0	31	8	2	1	0	0	2	0	0	0	0	0	0	0	0	0	12	1
9:15:00	0	0	35	4	2	0	0	0	2	0	0	0	0	0	0	0	0	0	13	1
9:30:00	0	0	40	5	2	0	0	0	2	0	0	0	0	0	0	0	0	0	13	0
9:45:00	1	1	44	4	2	0	0	0	2	0	0	0	0	0	0	0	0	0	14	1
10:00:00	1	0	48	4	2	0	0	0	2	0	0	0	0	0	0	0	0	0	14	0
10:15:00	1	0	48	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	14	0
15:00:00	1	0	48	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	14	0
15:15:00	1	0	54	6	3	1	0	0	2	0	0	0	0	0	0	0	0	0	14	0
15:30:00	1	0	60	6	3	0	0	0	2	0	0	0	0	0	0	0	0	0	14	0
15:45:00	1	0	67	7	3	0	0	0	2	0	0	0	0	0	0	0	0	0	14	0
16:00:00	1	0	73	6	3	0	0	0	2	0	0	0	0	0	0	0	0	0	14	0
16:15:00	1	0	78	5	5	2	0	0	2	0	0	0	0	0	0	0	0	0	14	0
16:30:00	1	0	86	8	8	3	0	0	2	0	0	0	0	0	0	0	0	0	14	0
16:45:00	2	1	93	7	8	0	0	0	2	0	0	0	0	0	0	0	0	0	14	0
17:00:00	3	1	101	8	8	0	0	0	2	0	0	0	0	0	0	0	0	0	15	1
17:15:00	3	0	107	6	9	1	0	0	2	0	0	0	0	0	0	0	0	0	15	0
17:30:00	5	2	114	7	9	0	0	0	2	0	0	0	0	0	0	0	0	0	15	0
17:45:00	6	1	117	3	9	0	0	0	2	0	0	0	0	0	0	0	0	0	15	0
18:00:00	6	0	119	2	9	0	0	0	2	0	0	0	0	0	0	0	0	0	15	0
18:15:00	6	0	119	0	9	0	0	0	2	0	0	0	0	0	0	0	0	0	15	0
18:15:15	6	0	119	0	9	0	0	0	2	0	0	0	0	0	0	0	0	0	15	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100001

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Buses - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
7:45:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:00:00	1	0	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1
8:15:00	2	1	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
8:30:00	2	0	7	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
8:45:00	3	1	7	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0
9:00:00	3	0	7	0	4	1	1	1	0	0	0	0	0	0	0	0	0	0	3	1
9:15:00	4	1	7	0	5	1	1	0	0	0	0	0	0	0	0	0	0	0	3	0
9:30:00	4	0	7	0	6	1	1	0	0	0	0	0	0	0	0	0	0	0	3	0
9:45:00	5	1	8	1	6	0	1	0	0	0	0	0	0	0	0	0	0	0	4	1
10:00:00	7	2	8	0	7	1	1	0	0	0	0	0	0	0	0	0	0	0	4	0
10:15:00	7	0	8	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0
15:00:00	7	0	8	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0
15:15:00	7	0	9	1	9	2	1	0	0	0	0	0	0	0	0	0	0	0	4	0
15:30:00	8	1	9	0	9	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0
15:45:00	10	2	12	3	10	1	1	0	0	0	0	0	0	0	0	0	0	0	4	0
16:00:00	12	2	14	2	11	1	1	0	0	0	0	0	0	0	0	0	0	0	4	0
16:15:00	12	0	14	0	13	2	1	0	0	0	0	0	0	0	0	0	0	0	4	0
16:30:00	12	0	14	0	13	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0
16:45:00	12	0	15	1	13	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0
17:00:00	16	4	19	4	13	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0
17:15:00	18	2	19	0	13	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0
17:30:00	20	2	19	0	13	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0
17:45:00	20	0	19	0	14	1	1	0	0	0	0	0	0	0	0	0	0	0	4	0
18:00:00	21	1	20	1	15	1	1	0	1	1	0	0	0	0	0	0	0	0	4	0
18:15:00	21	0	20	0	15	0	1	0	1	0	0	0	0	0	0	0	0	0	4	0
18:15:15	21	0	20	0	15	0	1	0	1	0	0	0	0	0	0	0	0	0	4	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 10:00:00

One Hour Peak
From: 8:00:00
To: 9:00:00

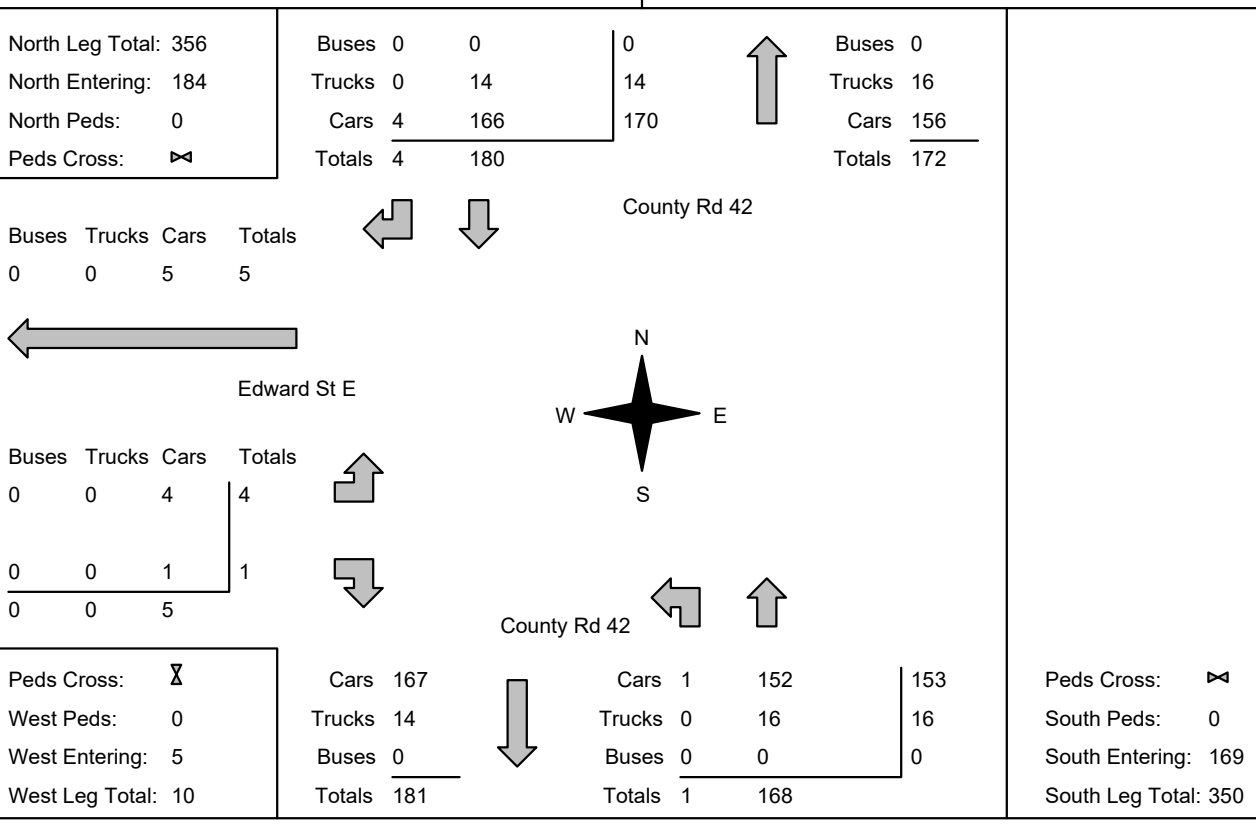
Municipality: Creemore
Site #: 2512100002
Intersection: County Rd 42 & Edward St E
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: County Rd 42 runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 16:45:00
To: 17:45:00

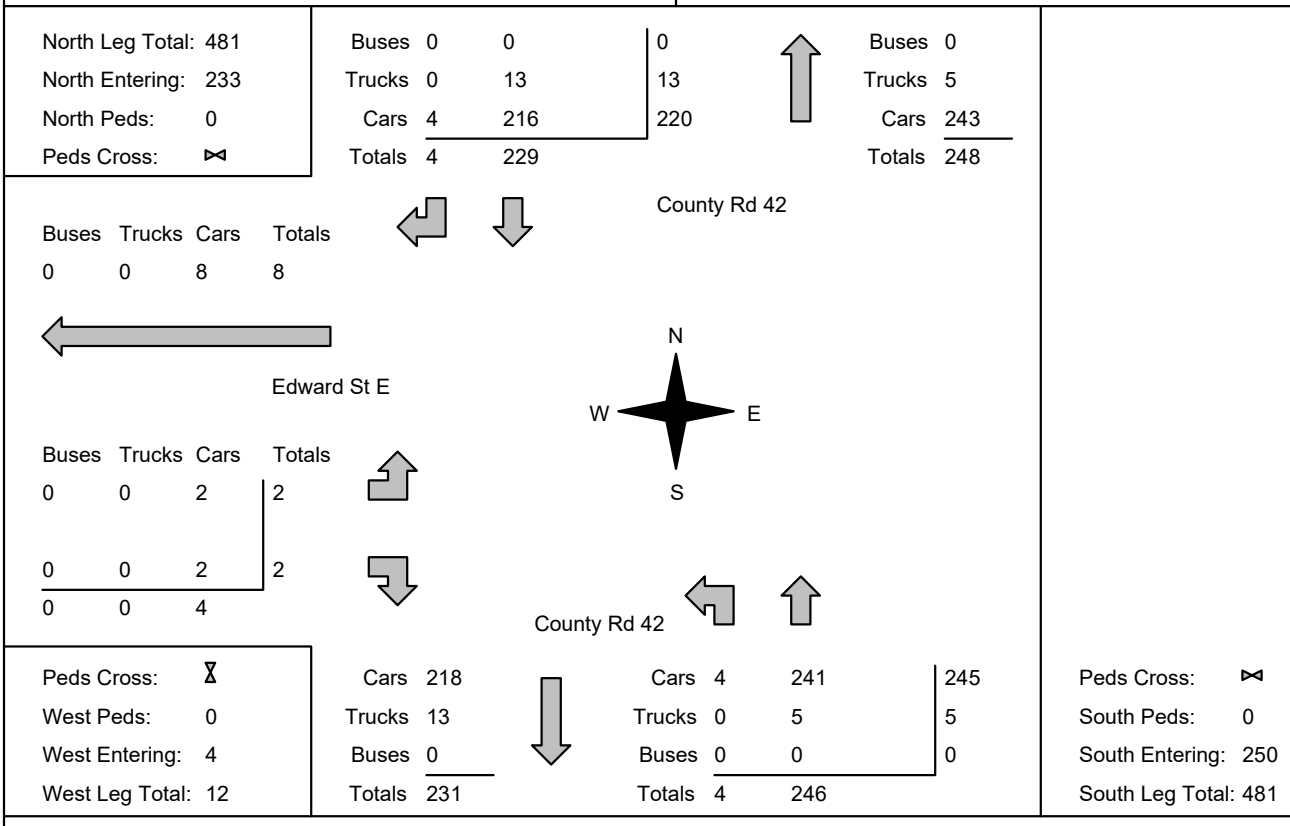
Municipality: Creemore
Site #: 2512100002
Intersection: County Rd 42 & Edward St E
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: County Rd 42 runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Total Count Diagram

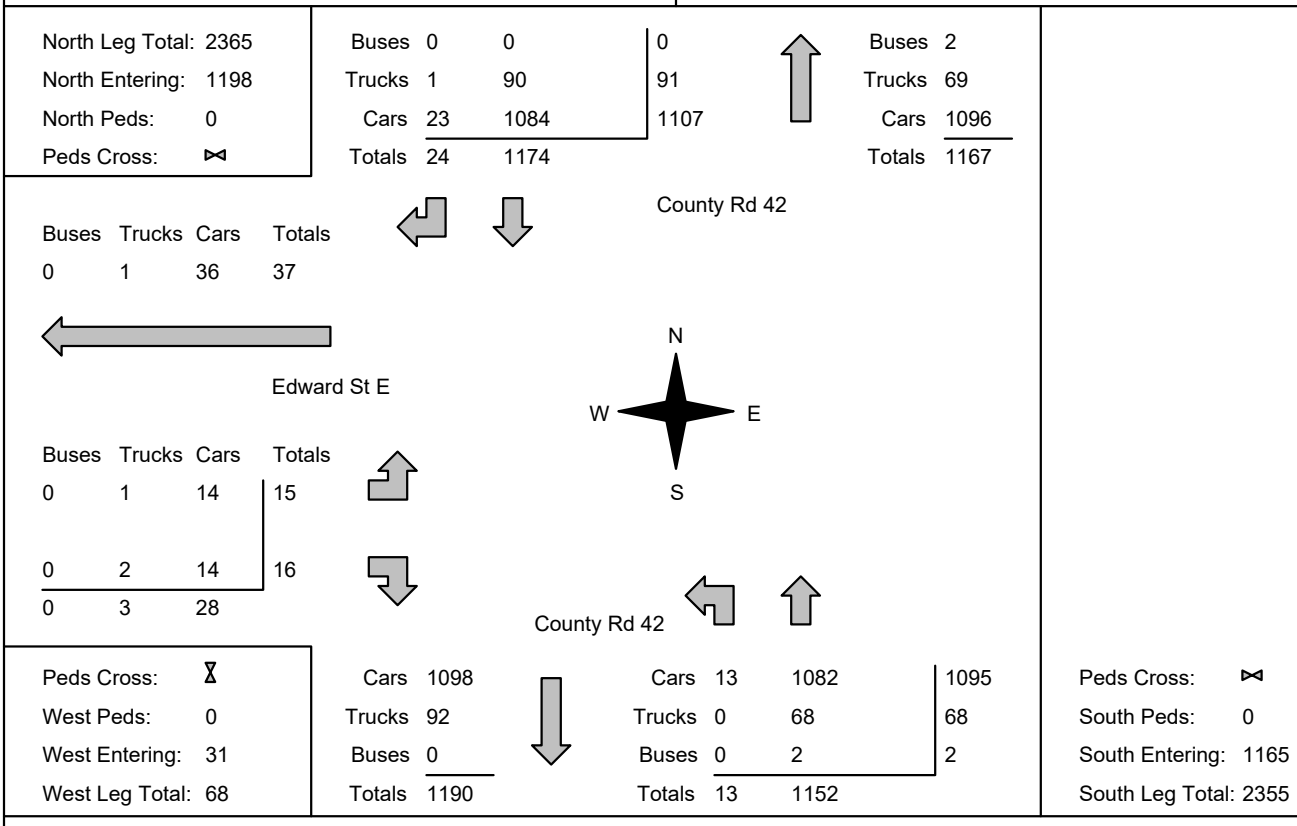
Municipality: Creemore
Site #: 2512100002
Intersection: County Rd 42 & Edward St E
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: County Rd 42 runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: County Rd 42 & Edward St E | **Count Date:** 29-Jul-25 | **Municipality:** Creemore

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds	North/South Total Approaches
	Left	Thru	Right	Grand Total		
7:00:00	*0*	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*166*	*4*	*170*	*0*	*311*
9:00:00	*0*	*180*	*4*	*184*	*0*	*353*
10:00:00	*0*	*166*	*4*	*170*	*0*	*353*
15:00:00	*0*	*0*	*0*	*0*	*0*	*0*
16:00:00	*0*	*211*	*5*	*216*	*0*	*425*
17:00:00	*0*	*228*	*3*	*231*	*0*	*467*
18:00:00	*0*	*223*	*4*	*227*	*0*	*454*
Totals:	0	1174	24	1198	0	2363

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*1*	*140*	*0*	*141*	*0*
9:00:00	*1*	*168*	*0*	*169*	*0*
10:00:00	*2*	*181*	*0*	*183*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*3*	*206*	*0*	*209*	*0*
17:00:00	*5*	*231*	*0*	*236*	*0*
18:00:00	*1*	*226*	*0*	*227*	*0*
S Totals:	13	1152	0	1165	0

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds	East/West Total Approaches
	Left	Thru	Right	Grand Total		
7:00:00	*0*	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*0*	*0*	*0*	*0*	*4*
9:00:00	*0*	*0*	*0*	*0*	*0*	*5*
10:00:00	*0*	*0*	*0*	*0*	*0*	*1*
15:00:00	*0*	*0*	*0*	*0*	*0*	*0*
16:00:00	*0*	*0*	*0*	*0*	*0*	*9*
17:00:00	*0*	*0*	*0*	*0*	*0*	*9*
18:00:00	*0*	*0*	*0*	*0*	*0*	*3*
Totals:	0	0	0	0	0	31

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*3*	*0*	*1*	*4*	*0*
9:00:00	*4*	*0*	*1*	*5*	*0*
10:00:00	*0*	*0*	*1*	*1*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*3*	*0*	*6*	*9*	*0*
17:00:00	*4*	*0*	*5*	*9*	*0*
18:00:00	*1*	*0*	*2*	*3*	*0*
W Totals:	15	0	16	31	0

Calculated Values for Traffic Crossing Major Street

Hours Ending:	*7:00*	*8:00*	*9:00*	*10:00*	*15:00*	*16:00*	*17:00*	*18:00*
Crossing Values:	*0*	*3*	*4*	*0*	*0*	*3*	*4*	*1*

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100002

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Buses - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	40	40	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	85	45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	125	40	1	1	0	0	3	2	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	162	37	4	3	0	0	4	1	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	197	35	8	4	0	0	6	2	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	232	35	8	0	0	0	8	2	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	290	58	8	0	0	0	14	6	0	0	0	0	0	0	0	0	0	0
9:00:00	0	0	328	38	8	0	0	0	18	4	0	0	0	0	0	0	0	0	0	0
9:15:00	0	0	358	30	9	1	0	0	23	5	0	0	0	0	0	0	0	0	0	0
9:30:00	0	0	389	31	10	1	0	0	26	3	0	0	0	0	0	0	0	0	0	0
9:45:00	0	0	439	50	12	2	0	0	35	9	0	0	0	0	0	0	0	0	0	0
10:00:00	0	0	475	36	12	0	0	0	37	2	0	0	0	0	0	0	0	0	0	0
10:15:00	0	0	475	0	12	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0
15:00:00	0	0	475	0	12	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0
15:15:00	0	0	526	51	13	1	0	0	43	6	0	0	0	0	0	0	0	0	0	0
15:30:00	0	0	561	35	15	2	0	0	52	9	0	0	0	0	0	0	0	0	0	0
15:45:00	0	0	603	42	15	0	0	0	54	2	1	1	0	0	0	0	0	0	0	0
16:00:00	0	0	664	61	16	1	0	0	59	5	1	0	0	0	0	0	0	0	0	0
16:15:00	0	0	720	56	17	1	0	0	61	2	1	0	0	0	0	0	0	0	0	0
16:30:00	0	0	781	61	18	1	0	0	64	3	1	0	0	0	0	0	0	0	0	0
16:45:00	0	0	824	43	18	0	0	0	73	9	1	0	0	0	0	0	0	0	0	0
17:00:00	0	0	875	51	19	1	0	0	76	3	1	0	0	0	0	0	0	0	0	0
17:15:00	0	0	922	47	20	1	0	0	80	4	1	0	0	0	0	0	0	0	0	0
17:30:00	0	0	983	61	22	2	0	0	84	4	1	0	0	0	0	0	0	0	0	0
17:45:00	0	0	1040	57	22	0	0	0	86	2	1	0	0	0	0	0	0	0	0	0
18:00:00	0	0	1084	44	23	1	0	0	90	4	1	0	0	0	0	0	0	0	0	0
18:15:00	0	0	1084	0	23	0	0	0	90	0	1	0	0	0	0	0	0	0	0	0
18:15:15	0	0	1084	0	23	0	0	0	90	0	1	0	0	0	0	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100002

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Buses - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100002

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Buses - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	26	26	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	59	33	0	0	0	0	9	6	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	91	32	0	0	0	0	13	4	0	0	0	0	0	0	0	0	0	0
8:00:00	1	1	122	31	0	0	0	0	18	5	0	0	0	0	0	0	0	0	0	0
8:15:00	1	0	151	29	0	0	0	0	23	5	0	0	0	0	0	0	0	0	0	0
8:30:00	2	1	191	40	0	0	0	0	24	1	0	0	0	0	0	0	0	0	0	0
8:45:00	2	0	237	46	0	0	0	0	31	7	0	0	0	0	0	0	0	0	0	0
9:00:00	2	0	274	37	0	0	0	0	34	3	0	0	0	0	0	0	0	0	0	0
9:15:00	2	0	306	32	0	0	0	0	37	3	0	0	0	0	0	0	0	0	0	0
9:30:00	3	1	343	37	0	0	0	0	41	4	0	0	0	0	1	1	0	0	0	0
9:45:00	4	1	386	43	0	0	0	0	46	5	0	0	0	0	1	0	0	0	0	0
10:00:00	4	0	441	55	0	0	0	0	47	1	0	0	0	0	1	0	0	0	0	0
10:15:00	4	0	441	0	0	0	0	0	47	0	0	0	0	0	1	0	0	0	0	0
15:00:00	4	0	441	0	0	0	0	0	47	0	0	0	0	0	1	0	0	0	0	0
15:15:00	6	2	488	47	0	0	0	0	49	2	0	0	0	0	2	1	0	0	0	0
15:30:00	6	0	535	47	0	0	0	0	51	2	0	0	0	0	2	0	0	0	0	0
15:45:00	7	1	581	46	0	0	0	0	53	2	0	0	0	0	2	0	0	0	0	0
16:00:00	7	0	637	56	0	0	0	0	56	3	0	0	0	0	2	0	0	0	0	0
16:15:00	7	0	696	59	0	0	0	0	57	1	0	0	0	0	2	0	0	0	0	0
16:30:00	7	0	740	44	0	0	0	0	58	1	0	0	0	0	2	0	0	0	0	0
16:45:00	9	2	793	53	0	0	0	0	60	2	0	0	0	0	2	0	0	0	0	0
17:00:00	12	3	861	68	0	0	0	0	63	3	0	0	0	0	2	0	0	0	0	0
17:15:00	13	1	913	52	0	0	0	0	64	1	0	0	0	0	2	0	0	0	0	0
17:30:00	13	0	971	58	0	0	0	0	65	1	0	0	0	0	2	0	0	0	0	0
17:45:00	13	0	1034	63	0	0	0	0	65	0	0	0	0	0	2	0	0	0	0	0
18:00:00	13	0	1082	48	0	0	0	0	68	3	0	0	0	0	2	0	0	0	0	0
18:15:00	13	0	1082	0	0	0	0	0	68	0	0	0	0	0	2	0	0	0	0	0
18:15:15	13	0	1082	0	0	0	0	0	68	0	0	0	0	0	2	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100002

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Buses - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	2	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	4	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	5	1	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	6	1	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	6	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15:00	6	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30:00	6	0	0	0	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45:00	6	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00:00	6	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15:00	6	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00:00	6	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15:00	6	0	0	0	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30:00	7	1	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45:00	9	2	0	0	6	2	1	0	0	0	1	1	0	0	0	0	0	0	0	0
16:00:00	9	0	0	0	8	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0
16:15:00	9	0	0	0	9	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0
16:30:00	11	2	0	0	11	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0
16:45:00	12	1	0	0	12	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0
17:00:00	13	1	0	0	13	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0
17:15:00	13	0	0	0	13	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
17:30:00	13	0	0	0	13	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
17:45:00	14	1	0	0	14	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0
18:00:00	14	0	0	0	14	0	1	0	0	0	2	1	0	0	0	0	0	0	0	0
18:15:00	14	0	0	0	14	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
18:15:15	14	0	0	0	14	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 10:00:00

One Hour Peak
From: 8:00:00
To: 9:00:00

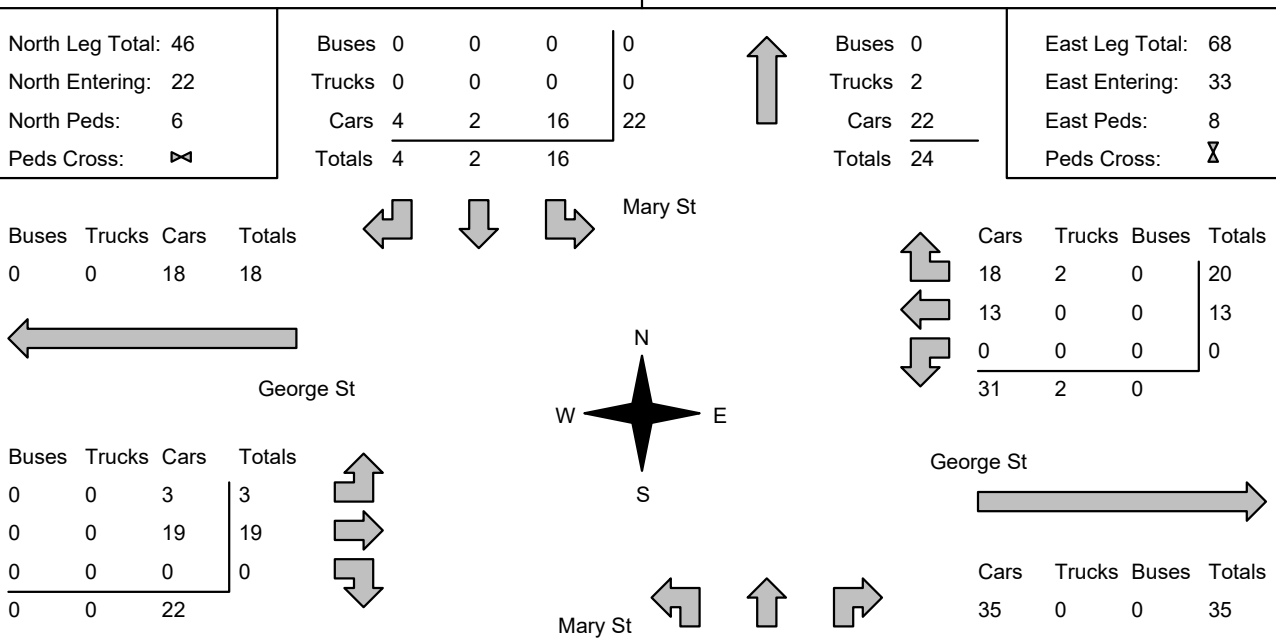
Municipality: Creemore
Site #: 2512100003
Intersection: George St & Mary St
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: George St runs W/E



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 16:15:00
To: 17:15:00

Municipality: Creemore
Site #: 2512100003
Intersection: George St & Mary St
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: George St runs W/E

North Leg Total: 55
North Entering: 19
North Peds: 0
Peds Cross: ⋈

Buses	0	0	0	0
Trucks	0	0	0	0
Cars	2	5	12	19
Totals	2	5	12	

Buses	0
Trucks	1
Cars	35
Totals	36

East Leg Total: 88
East Entering: 48
East Peds: 0
Peds Cross: ⧖

Mary St

Buses	Trucks	Cars	Totals
0	0	22	22

Cars	Trucks	Buses	Totals
26	1	0	27
20	0	0	20
1	0	0	1
47	1	0	

George St

N
W E
S

Buses	Trucks	Cars	Totals
0	0	6	6
0	1	27	28
0	0	2	2
0	1	35	

George St

Cars	Trucks	Buses	Totals
39	1	0	40

Mary St

Peds Cross: ⧖
West Peds: 2
West Entering: 36
West Leg Total: 58

Cars	8
Trucks	0
Buses	0
Totals	8

Cars	0	3	0	3
Trucks	0	0	0	0
Buses	0	0	0	0
Totals	0	3	0	

Peds Cross: ⋈
South Peds: 0
South Entering: 3
South Leg Total: 11

Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Total Count Diagram

Municipality: Creemore
Site #: 2512100003
Intersection: George St & Mary St
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: George St runs W/E

North Leg Total:	239			
North Entering:	104			
North Peds:	8			
Peds Cross:	⋈			
Buses	0	0	0	0
Trucks	0	0	0	0
Cars	12	8	84	104
Totals	12	8	84	
Buses	0			
Trucks	3			
Cars	132			
Totals	135			
East Leg Total:	372			
East Entering:	188			
East Peds:	8			
Peds Cross:	⧖			

Mary St

Buses	Trucks	Cars	Totals
0	2	97	99

George St

Buses	Trucks	Cars	Totals
0	0	22	22
0	3	97	100
0	0	3	3
0	3	122	

Cars	Trucks	Buses	Totals
99	3	0	102
83	2	0	85
1	0	0	1
183	5	0	

N
W E
S

George St

Cars	Trucks	Buses	Totals
181	3	0	184

Mary St

Peds Cross:	⧖			
West Peds:	6			
West Entering:	125			
West Leg Total:	224			
Cars	12			
Trucks	0			
Buses	0			
Totals	12			
Cars	2	11	0	13
Trucks	0	0	0	0
Buses	0	0	0	0
Totals	2	11	0	
Peds Cross:	⋈			
South Peds:	0			
South Entering:	13			
South Leg Total:	25			

Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: George St & Mary St | **Count Date:** 29-Jul-25 | **Municipality:** Creemore

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*9*	*0*	*0*	*9*	*1*
9:00:00	*16*	*2*	*4*	*22*	*6*
10:00:00	*13*	*0*	*1*	*14*	*1*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*21*	*1*	*3*	*25*	*0*
17:00:00	*13*	*4*	*4*	*21*	*0*
18:00:00	*12*	*1*	*0*	*13*	*0*
Totals:	84	8	12	104	8

North/South Total Approaches: 117

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*1*	*1*	*0*	*2*	*0*
9:00:00	*1*	*1*	*0*	*2*	*0*
10:00:00	*0*	*2*	*0*	*2*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*0*	*2*	*0*	*2*	*0*
17:00:00	*0*	*3*	*0*	*3*	*0*
18:00:00	*0*	*2*	*0*	*2*	*0*
S Totals:	2	11	0	13	0

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*8*	*6*	*14*	*0*
9:00:00	*0*	*13*	*20*	*33*	*8*
10:00:00	*0*	*10*	*12*	*22*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*0*	*17*	*21*	*38*	*0*
17:00:00	*1*	*15*	*26*	*42*	*0*
18:00:00	*0*	*22*	*17*	*39*	*0*
Totals:	1	85	102	188	8

East/West Total Approaches: 313

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*2*	*4*	*1*	*7*	*0*
9:00:00	*3*	*19*	*0*	*22*	*4*
10:00:00	*4*	*8*	*0*	*12*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*3*	*24*	*0*	*27*	*0*
17:00:00	*7*	*24*	*2*	*33*	*2*
18:00:00	*3*	*21*	*0*	*24*	*0*
W Totals:	22	100	3	125	6

Calculated Values for Traffic Crossing Major Street

Hours Ending:	*7:00*	*8:00*	*9:00*	*10:00*	*15:00*	*16:00*	*17:00*	*18:00*
Crossing Values:	*0*	*11*	*31*	*15*	*0*	*23*	*19*	*14*

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100003

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Buses - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
7:45:00	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:00:00	9	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:15:00	12	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:30:00	16	4	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	6	5
8:45:00	21	5	2	1	4	3	0	0	0	0	0	0	0	0	0	0	0	0	6	0
9:00:00	25	4	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1
9:15:00	29	4	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
9:30:00	33	4	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
9:45:00	35	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
10:00:00	38	3	2	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	8	1
10:15:00	38	0	2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
15:00:00	38	0	2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
15:15:00	43	5	2	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	8	0
15:30:00	49	6	3	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
15:45:00	55	6	3	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	8	0
16:00:00	59	4	3	0	8	1	0	0	0	0	0	0	0	0	0	0	0	0	8	0
16:15:00	62	3	3	0	10	2	0	0	0	0	0	0	0	0	0	0	0	0	8	0
16:30:00	66	4	3	0	12	2	0	0	0	0	0	0	0	0	0	0	0	0	8	0
16:45:00	70	4	4	1	12	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
17:00:00	72	2	7	3	12	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
17:15:00	74	2	8	1	12	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
17:30:00	78	4	8	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
17:45:00	80	2	8	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
18:00:00	84	4	8	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
18:15:00	84	0	8	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
18:15:15	84	0	8	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100003

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Buses - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	3	3	2	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	4	1	3	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	6	2	6	3	0	0	2	1	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	10	4	9	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	14	4	13	4	0	0	2	0	1	1	0	0	0	0	0	0	5	5
8:45:00	0	0	15	1	16	3	0	0	2	0	2	1	0	0	0	0	0	0	7	2
9:00:00	0	0	19	4	24	8	0	0	2	0	2	0	0	0	0	0	0	0	8	1
9:15:00	0	0	22	3	26	2	0	0	2	0	2	0	0	0	0	0	0	0	8	0
9:30:00	0	0	23	1	30	4	0	0	2	0	2	0	0	0	0	0	0	0	8	0
9:45:00	0	0	26	3	34	4	0	0	2	0	2	0	0	0	0	0	0	0	8	0
10:00:00	0	0	29	3	36	2	0	0	2	0	2	0	0	0	0	0	0	0	8	0
10:15:00	0	0	29	0	36	0	0	0	2	0	2	0	0	0	0	0	0	0	8	0
15:00:00	0	0	29	0	36	0	0	0	2	0	2	0	0	0	0	0	0	0	8	0
15:15:00	0	0	35	6	42	6	0	0	2	0	2	0	0	0	0	0	0	0	8	0
15:30:00	0	0	37	2	46	4	0	0	2	0	2	0	0	0	0	0	0	0	8	0
15:45:00	0	0	37	0	52	6	0	0	2	0	2	0	0	0	0	0	0	0	8	0
16:00:00	0	0	46	9	57	5	0	0	2	0	2	0	0	0	0	0	0	0	8	0
16:15:00	0	0	50	4	62	5	0	0	2	0	2	0	0	0	0	0	0	0	8	0
16:30:00	1	1	54	4	72	10	0	0	2	0	2	0	0	0	0	0	0	0	8	0
16:45:00	1	0	57	3	78	6	0	0	2	0	3	1	0	0	0	0	0	0	8	0
17:00:00	1	0	61	4	82	4	0	0	2	0	3	0	0	0	0	0	0	0	8	0
17:15:00	1	0	70	9	88	6	0	0	2	0	3	0	0	0	0	0	0	0	8	0
17:30:00	1	0	75	5	96	8	0	0	2	0	3	0	0	0	0	0	0	0	8	0
17:45:00	1	0	80	5	98	2	0	0	2	0	3	0	0	0	0	0	0	0	8	0
18:00:00	1	0	83	3	99	1	0	0	2	0	3	0	0	0	0	0	0	0	8	0
18:15:00	1	0	83	0	99	0	0	0	2	0	3	0	0	0	0	0	0	0	8	0
18:15:15	1	0	83	0	99	0	0	0	2	0	3	0	0	0	0	0	0	0	8	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100003

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Buses - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	2	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15:00	2	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30:00	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45:00	2	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00:00	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15:00	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00:00	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15:00	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30:00	2	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45:00	2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00:00	2	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15:00	2	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30:00	2	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	2	0	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	2	0	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15:00	2	0	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30:00	2	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45:00	2	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00:00	2	0	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:00	2	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:15	2	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100003

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Buses - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	2	2	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	3	1	8	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	3	0	13	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
8:45:00	5	2	18	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
9:00:00	5	0	23	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
9:15:00	6	1	26	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
9:30:00	7	1	26	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
9:45:00	7	0	28	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
10:00:00	9	2	30	2	1	0	0	0	1	1	0	0	0	0	0	0	0	0	4	0
10:15:00	9	0	30	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0
15:00:00	9	0	30	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0
15:15:00	10	1	38	8	1	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0
15:30:00	11	1	45	7	1	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0
15:45:00	12	1	51	6	1	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0
16:00:00	12	0	54	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0
16:15:00	13	1	56	2	1	0	0	0	2	1	0	0	0	0	0	0	0	0	4	0
16:30:00	15	2	63	7	1	0	0	0	2	0	0	0	0	0	0	0	0	0	4	0
16:45:00	15	0	69	6	2	1	0	0	3	1	0	0	0	0	0	0	0	0	4	0
17:00:00	19	4	76	7	3	1	0	0	3	0	0	0	0	0	0	0	0	0	6	2
17:15:00	19	0	83	7	3	0	0	0	3	0	0	0	0	0	0	0	0	0	6	0
17:30:00	20	1	90	7	3	0	0	0	3	0	0	0	0	0	0	0	0	0	6	0
17:45:00	22	2	95	5	3	0	0	0	3	0	0	0	0	0	0	0	0	0	6	0
18:00:00	22	0	97	2	3	0	0	0	3	0	0	0	0	0	0	0	0	0	6	0
18:15:00	22	0	97	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	6	0
18:15:15	22	0	97	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	6	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 10:00:00

One Hour Peak
From: 8:00:00
To: 9:00:00

Municipality: Creemore
Site #: 2512100004
Intersection: George St & Concession 3
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: George St runs W/E

North Leg Total: 6
North Entering: 4
North Peds: 1
Peds Cross: ⋈

Buses	0	0	0
Trucks	0	0	0
Cars	4	0	4
Totals	4	0	

Buses	0
Trucks	0
Cars	2
Totals	2

East Leg Total: 49
East Entering: 22
East Peds: 1
Peds Cross: ⧖

Buses	Trucks	Cars	Totals
0	2	24	26

George St

Cars	Trucks	Buses	Totals
0	0	0	0
20	2	0	22
20	2	0	

N
W E
S

George St

Buses	Trucks	Cars	Totals
0	0	2	2
0	1	26	27
0	1	28	

Concession 3

Cars	Trucks	Buses	Totals
26	1	0	27

Peds Cross: ⧖
West Peds: 0
West Entering: 29
West Leg Total: 55

Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 15:00:00
To: 16:00:00

Municipality: Creemore
Site #: 2512100004
Intersection: George St & Concession 3
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

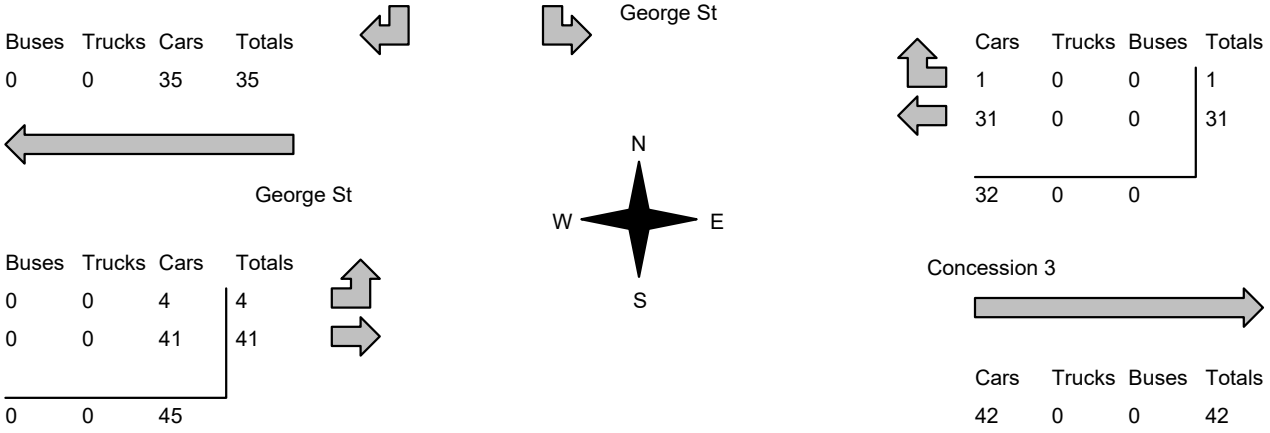
Major Road: George St runs W/E

North Leg Total: 10
North Entering: 5
North Peds: 0
Peds Cross: ⋈

Buses	0	0	0
Trucks	0	0	0
Cars	4	1	5
Totals	4	1	

Buses	0
Trucks	0
Cars	5
Totals	5

East Leg Total: 74
East Entering: 32
East Peds: 0
Peds Cross: ⧖



Peds Cross: ⧖
West Peds: 0
West Entering: 45
West Leg Total: 80

Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Total Count Diagram

Municipality: Creemore
Site #: 2512100004
Intersection: George St & Concession 3
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: George St runs W/E

North Leg Total: 28
North Entering: 15
North Peds: 4
Peds Cross: ⋈

Buses	0	0	0
Trucks	0	0	0
Cars	14	1	15
Totals	14	1	

Buses	0
Trucks	0
Cars	13
Totals	13

East Leg Total: 306
East Entering: 151
East Peds: 1
Peds Cross: ⧖

George St

Buses	Trucks	Cars	Totals
0	6	158	164

Cars	Trucks	Buses	Totals
1	0	0	1
144	6	0	150
145	6	0	

N
W E
S

George St

Buses	Trucks	Cars	Totals
0	0	12	12
0	4	150	154
0	4	162	

Concession 3

Cars	Trucks	Buses	Totals
151	4	0	155

Peds Cross: ⧖
West Peds: 0
West Entering: 166
West Leg Total: 330

Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: George St & Concession 3 | **Count Date:** 29-Jul-25 | **Municipality:** Creemore

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*0*	*1*	*1*	*1*
9:00:00	*0*	*0*	*4*	*4*	*1*
10:00:00	*0*	*0*	*2*	*2*	*2*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*1*	*0*	*4*	*5*	*0*
17:00:00	*0*	*0*	*0*	*0*	*0*
18:00:00	*0*	*0*	*3*	*3*	*0*
Totals:	1	0	14	15	4

North/South Total Approaches: 15

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*0*	*0*	*0*	*0*
9:00:00	*0*	*0*	*0*	*0*	*0*
10:00:00	*0*	*0*	*0*	*0*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*0*	*0*	*0*	*0*	*0*
18:00:00	*0*	*0*	*0*	*0*	*0*
S Totals:	0	0	0	0	0

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*10*	*0*	*10*	*0*
9:00:00	*0*	*22*	*0*	*22*	*1*
10:00:00	*0*	*19*	*0*	*19*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*0*	*31*	*1*	*32*	*0*
17:00:00	*0*	*35*	*0*	*35*	*0*
18:00:00	*0*	*33*	*0*	*33*	*0*
Totals:	0	150	1	151	1

East/West Total Approaches: 317

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*13*	*0*	*13*	*0*
9:00:00	*2*	*27*	*0*	*29*	*0*
10:00:00	*2*	*16*	*0*	*18*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*4*	*41*	*0*	*45*	*0*
17:00:00	*4*	*28*	*0*	*32*	*0*
18:00:00	*0*	*29*	*0*	*29*	*0*
W Totals:	12	154	0	166	0

Calculated Values for Traffic Crossing Major Street

Hours Ending:	*7:00*	*8:00*	*9:00*	*10:00*	*15:00*	*16:00*	*17:00*	*18:00*
Crossing Values:	*0*	*0*	*1*	*0*	*0*	*1*	*0*	*0*

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100004

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Buses - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
8:15:00	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:30:00	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:45:00	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
9:00:00	0	0	0	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1
9:15:00	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
9:30:00	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
9:45:00	0	0	0	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0
10:00:00	0	0	0	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	4	2
10:15:00	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
15:00:00	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
15:15:00	0	0	0	0	9	2	0	0	0	0	0	0	0	0	0	0	0	0	4	0
15:30:00	0	0	0	0	10	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0
15:45:00	1	1	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
16:00:00	1	0	0	0	11	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0
16:15:00	1	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
16:30:00	1	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
16:45:00	1	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
17:00:00	1	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
17:15:00	1	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
17:30:00	1	0	0	0	12	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0
17:45:00	1	0	0	0	14	2	0	0	0	0	0	0	0	0	0	0	0	0	4	0
18:00:00	1	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
18:15:00	1	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
18:15:15	1	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100004

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Buses - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	4	4	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	6	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	8	2	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	11	3	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	16	5	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	20	4	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0
9:00:00	0	0	28	8	0	0	0	0	4	0	0	0	0	0	0	0	0	0	1	1
9:15:00	0	0	32	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0
9:30:00	0	0	39	7	0	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0
9:45:00	0	0	43	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0
10:00:00	0	0	46	3	0	0	0	0	5	1	0	0	0	0	0	0	0	0	1	0
10:15:00	0	0	46	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0
15:00:00	0	0	46	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0
15:15:00	0	0	54	8	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0
15:30:00	0	0	61	7	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0
15:45:00	0	0	66	5	1	1	0	0	5	0	0	0	0	0	0	0	0	0	1	0
16:00:00	0	0	77	11	1	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0
16:15:00	0	0	84	7	1	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0
16:30:00	0	0	97	13	1	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0
16:45:00	0	0	106	9	1	0	0	0	6	1	0	0	0	0	0	0	0	0	1	0
17:00:00	0	0	111	5	1	0	0	0	6	0	0	0	0	0	0	0	0	0	1	0
17:15:00	0	0	125	14	1	0	0	0	6	0	0	0	0	0	0	0	0	0	1	0
17:30:00	0	0	134	9	1	0	0	0	6	0	0	0	0	0	0	0	0	0	1	0
17:45:00	0	0	140	6	1	0	0	0	6	0	0	0	0	0	0	0	0	0	1	0
18:00:00	0	0	144	4	1	0	0	0	6	0	0	0	0	0	0	0	0	0	1	0
18:15:00	0	0	144	0	1	0	0	0	6	0	0	0	0	0	0	0	0	0	1	0
18:15:15	0	0	144	0	1	0	0	0	6	0	0	0	0	0	0	0	0	0	1	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100004

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Buses - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100004

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Buses - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	13	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	1	1	18	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	1	0	25	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	2	1	32	7	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
9:00:00	2	0	39	7	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
9:15:00	2	0	45	6	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
9:30:00	2	0	48	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
9:45:00	3	1	51	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
10:00:00	4	1	54	3	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0
10:15:00	4	0	54	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
15:00:00	4	0	54	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
15:15:00	5	1	64	10	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
15:30:00	7	2	77	13	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
15:45:00	8	1	86	9	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
16:00:00	8	0	95	9	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
16:15:00	8	0	99	4	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0
16:30:00	9	1	107	8	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
16:45:00	10	1	114	7	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0
17:00:00	12	2	121	7	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
17:15:00	12	0	129	8	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
17:30:00	12	0	141	12	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
17:45:00	12	0	146	5	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
18:00:00	12	0	150	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
18:15:00	12	0	150	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
18:15:15	12	0	150	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 10:00:00

One Hour Peak
From: 7:45:00
To: 8:45:00

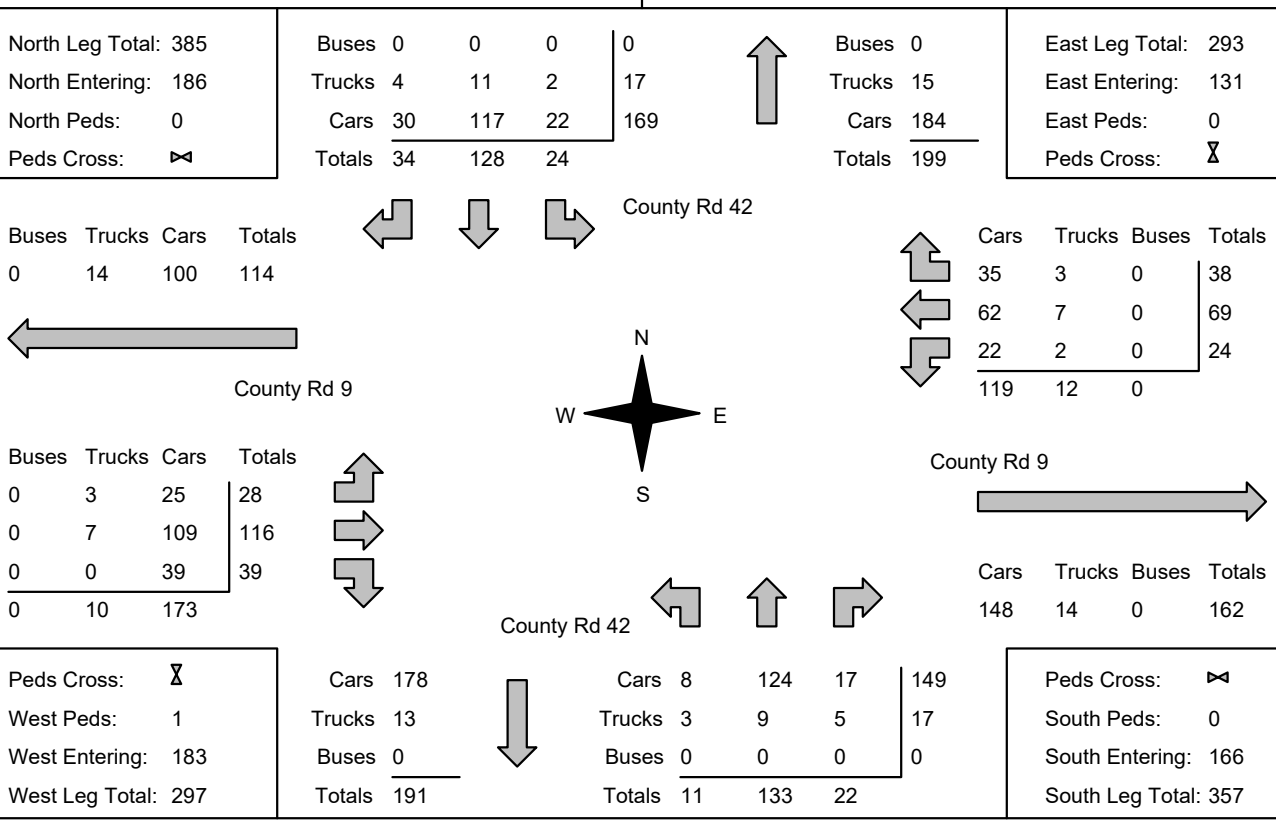
Municipality: Creemore
Site #: 2512100005
Intersection: County Rd 42 & County Rd 9
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: County Rd 42 runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 15:45:00
To: 16:45:00

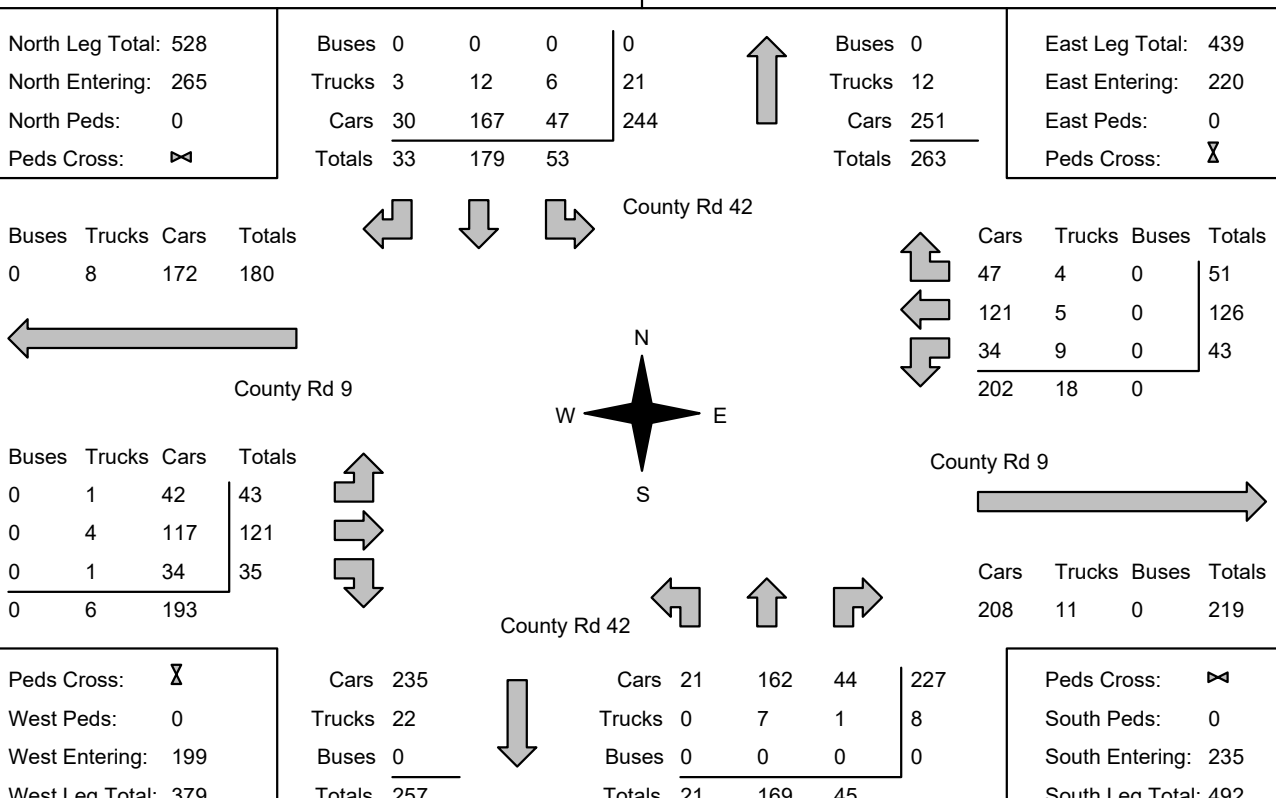
Municipality: Creemore
Site #: 2512100005
Intersection: County Rd 42 & County Rd 9
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: County Rd 42 runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Total Count Diagram

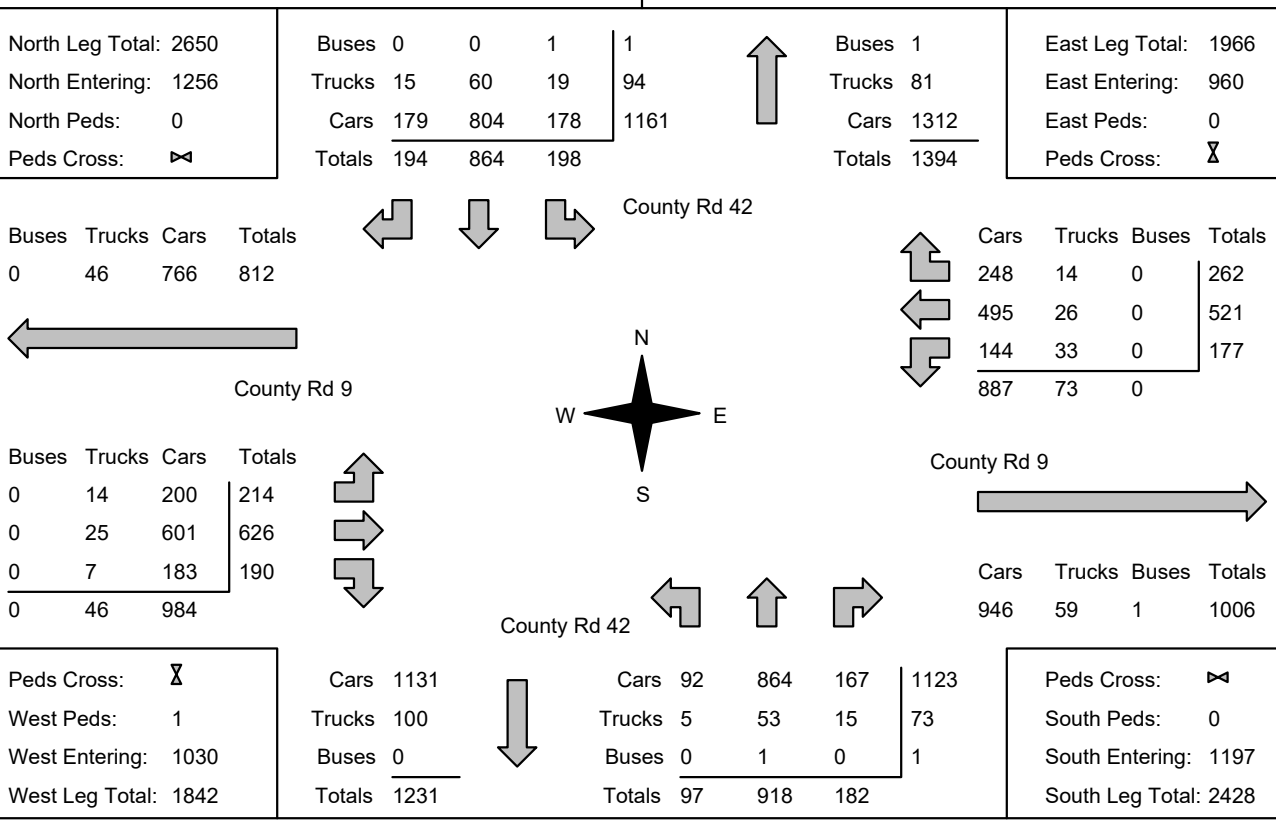
Municipality: Creemore
Site #: 2512100005
Intersection: County Rd 42 & County Rd 9
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: County Rd 42 runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: County Rd 42 & County Rd 9 | **Count Date:** 29-Jul-25 | **Municipality:** Creemore

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*26*	*129*	*20*	*175*	*0*
9:00:00	*21*	*120*	*27*	*168*	*0*
10:00:00	*33*	*116*	*35*	*184*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*41*	*159*	*33*	*233*	*0*
17:00:00	*45*	*169*	*35*	*249*	*0*
18:00:00	*32*	*171*	*44*	*247*	*0*
Totals:	198	864	194	1256	0

North/South Total Approaches: *2453*

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*9*	*101*	*28*	*138*	*0*
9:00:00	*10*	*149*	*20*	*179*	*0*
10:00:00	*17*	*132*	*35*	*184*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*16*	*164*	*24*	*204*	*0*
17:00:00	*23*	*189*	*44*	*256*	*0*
18:00:00	*22*	*183*	*31*	*236*	*0*
S Totals:	97	918	182	1197	0

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*11*	*44*	*57*	*112*	*0*
9:00:00	*30*	*62*	*29*	*121*	*0*
10:00:00	*28*	*65*	*31*	*124*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*40*	*91*	*40*	*171*	*0*
17:00:00	*38*	*123*	*52*	*213*	*0*
18:00:00	*30*	*136*	*53*	*219*	*0*
Totals:	177	521	262	960	0

East/West Total Approaches: *1990*

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*19*	*109*	*30*	*158*	*0*
9:00:00	*35*	*97*	*37*	*169*	*1*
10:00:00	*38*	*92*	*27*	*157*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*45*	*98*	*26*	*169*	*0*
17:00:00	*45*	*108*	*39*	*192*	*0*
18:00:00	*32*	*122*	*31*	*185*	*0*
W Totals:	214	626	190	1030	1

Calculated Values for Traffic Crossing Major Street

Hours Ending:	*7:00*	*8:00*	*9:00*	*10:00*	*15:00*	*16:00*	*17:00*	*18:00*
Crossing Values:	*0*	*139*	*162*	*158*	*0*	*183*	*206*	*198*

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100005

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Buses - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	6	6	31	31	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
7:30:00	10	4	65	34	5	5	0	0	2	0	0	0	0	0	0	0	0	0	0	0
7:45:00	14	4	93	28	9	4	0	0	4	2	0	0	0	0	0	0	0	0	0	0
8:00:00	25	11	122	29	19	10	1	1	7	3	1	1	0	0	0	0	0	0	0	0
8:15:00	30	5	147	25	23	4	1	0	8	1	2	1	0	0	0	0	0	0	0	0
8:30:00	33	3	169	22	30	7	2	1	9	1	3	1	0	0	0	0	0	0	0	0
8:45:00	36	3	210	41	39	9	2	0	15	6	4	1	0	0	0	0	0	0	0	0
9:00:00	44	8	232	22	43	4	3	1	17	2	4	0	0	0	0	0	0	0	0	0
9:15:00	50	6	250	18	52	9	4	1	18	1	4	0	1	1	0	0	0	0	0	0
9:30:00	56	6	275	25	60	8	4	0	20	2	5	1	1	0	0	0	0	0	0	0
9:45:00	63	7	312	37	65	5	9	5	26	6	6	1	1	0	0	0	0	0	0	0
10:00:00	70	7	338	26	76	11	9	0	27	1	6	0	1	0	0	0	0	0	0	0
10:15:00	70	0	338	0	76	0	9	0	27	0	6	0	1	0	0	0	0	0	0	0
15:00:00	70	0	338	0	76	0	9	0	27	0	6	0	1	0	0	0	0	0	0	0
15:15:00	73	3	377	39	85	9	10	1	29	2	7	1	1	0	0	0	0	0	0	0
15:30:00	79	6	405	28	91	6	10	0	33	4	9	2	1	0	0	0	0	0	0	0
15:45:00	89	10	439	34	96	5	10	0	36	3	11	2	1	0	0	0	0	0	0	0
16:00:00	107	18	485	46	102	6	13	3	39	3	13	2	1	0	0	0	0	0	0	0
16:15:00	119	12	530	45	113	11	13	0	42	3	13	0	1	0	0	0	0	0	0	0
16:30:00	129	10	575	45	122	9	13	0	45	3	14	1	1	0	0	0	0	0	0	0
16:45:00	136	7	606	31	126	4	16	3	48	3	14	0	1	0	0	0	0	0	0	0
17:00:00	148	12	643	37	136	10	17	1	50	2	14	0	1	0	0	0	0	0	0	0
17:15:00	154	6	682	39	143	7	17	0	52	2	14	0	1	0	0	0	0	0	0	0
17:30:00	168	14	729	47	152	9	17	0	56	4	14	0	1	0	0	0	0	0	0	0
17:45:00	169	1	769	40	163	11	17	0	57	1	15	1	1	0	0	0	0	0	0	0
18:00:00	178	9	804	35	179	16	19	2	60	3	15	0	1	0	0	0	0	0	0	0
18:15:00	178	0	804	0	179	0	19	0	60	0	15	0	1	0	0	0	0	0	0	0
18:15:15	178	0	804	0	179	0	19	0	60	0	15	0	1	0	0	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100005

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Buses - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	1	1	8	8	16	16	0	0	1	1	1	1	0	0	0	0	0	0	0	0
7:30:00	4	3	13	5	33	17	0	0	1	0	1	0	0	0	0	0	0	0	0	0
7:45:00	9	5	22	9	42	9	0	0	3	2	1	0	0	0	0	0	0	0	0	0
8:00:00	11	2	41	19	56	14	0	0	3	0	1	0	0	0	0	0	0	0	0	0
8:15:00	14	3	54	13	63	7	0	0	3	0	1	0	0	0	0	0	0	0	0	0
8:30:00	22	8	73	19	71	8	1	1	5	2	3	2	0	0	0	0	0	0	0	0
8:45:00	31	9	84	11	77	6	2	1	10	5	4	1	0	0	0	0	0	0	0	0
9:00:00	37	6	96	12	82	5	4	2	10	0	4	0	0	0	0	0	0	0	0	0
9:15:00	44	7	111	15	86	4	7	3	11	1	5	1	0	0	0	0	0	0	0	0
9:30:00	46	2	123	12	95	9	8	1	12	1	6	1	0	0	0	0	0	0	0	0
9:45:00	56	10	136	13	106	11	11	3	15	3	6	0	0	0	0	0	0	0	0	0
10:00:00	57	1	156	20	111	5	12	1	15	0	6	0	0	0	0	0	0	0	0	0
10:15:00	57	0	156	0	111	0	12	0	15	0	6	0	0	0	0	0	0	0	0	0
15:00:00	57	0	156	0	111	0	12	0	15	0	6	0	0	0	0	0	0	0	0	0
15:15:00	64	7	168	12	128	17	16	4	15	0	7	1	0	0	0	0	0	0	0	0
15:30:00	72	8	195	27	136	8	20	4	16	1	8	1	0	0	0	0	0	0	0	0
15:45:00	75	3	215	20	141	5	20	0	16	0	8	0	0	0	0	0	0	0	0	0
16:00:00	87	12	244	29	147	6	22	2	18	2	10	2	0	0	0	0	0	0	0	0
16:15:00	93	6	277	33	161	14	23	1	19	1	11	1	0	0	0	0	0	0	0	0
16:30:00	102	9	304	27	170	9	24	1	21	2	11	0	0	0	0	0	0	0	0	0
16:45:00	109	7	336	32	188	18	29	5	21	0	12	1	0	0	0	0	0	0	0	0
17:00:00	117	8	364	28	196	8	30	1	21	0	13	1	0	0	0	0	0	0	0	0
17:15:00	122	5	390	26	214	18	32	2	21	0	13	0	0	0	0	0	0	0	0	0
17:30:00	130	8	419	29	228	14	32	0	23	2	14	1	0	0	0	0	0	0	0	0
17:45:00	139	9	450	31	236	8	32	0	24	1	14	0	0	0	0	0	0	0	0	0
18:00:00	144	5	495	45	248	12	33	1	26	2	14	0	0	0	0	0	0	0	0	0
18:15:00	144	0	495	0	248	0	33	0	26	0	14	0	0	0	0	0	0	0	0	0
18:15:15	144	0	495	0	248	0	33	0	26	0	14	0	0	0	0	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100005

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Buses - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	1	1	20	20	2	2	0	0	2	2	1	1	0	0	0	0	0	0	0	0
7:30:00	4	3	43	23	9	7	1	1	7	5	2	1	0	0	0	0	0	0	0	0
7:45:00	5	1	71	28	13	4	1	0	9	2	6	4	0	0	0	0	0	0	0	0
8:00:00	7	2	91	20	20	7	2	1	10	1	8	2	0	0	0	0	0	0	0	0
8:15:00	7	0	122	31	25	5	2	0	14	4	10	2	0	0	0	0	0	0	0	0
8:30:00	10	3	157	35	28	3	3	1	14	0	10	0	0	0	0	0	0	0	0	0
8:45:00	13	3	195	38	30	2	4	1	18	4	11	1	0	0	0	0	0	0	0	0
9:00:00	15	2	226	31	37	7	4	0	24	6	11	0	0	0	0	0	0	0	0	0
9:15:00	20	5	246	20	45	8	5	1	26	2	11	0	0	0	0	0	0	0	0	0
9:30:00	23	3	269	23	54	9	5	0	30	4	11	0	0	0	1	1	0	0	0	0
9:45:00	26	3	301	32	62	8	5	0	34	4	12	1	0	0	1	0	0	0	0	0
10:00:00	31	5	347	46	71	9	5	0	34	0	12	0	0	0	1	0	0	0	0	0
10:15:00	31	0	347	0	71	0	5	0	34	0	12	0	0	0	1	0	0	0	0	0
15:00:00	31	0	347	0	71	0	5	0	34	0	12	0	0	0	1	0	0	0	0	0
15:15:00	40	9	380	33	75	4	5	0	36	2	13	1	0	0	1	0	0	0	0	0
15:30:00	41	1	423	43	81	6	5	0	38	2	13	0	0	0	1	0	0	0	0	0
15:45:00	43	2	461	38	85	4	5	0	39	1	13	0	0	0	1	0	0	0	0	0
16:00:00	47	4	503	42	94	9	5	0	42	3	13	0	0	0	1	0	0	0	0	0
16:15:00	55	8	549	46	106	12	5	0	43	1	13	0	0	0	1	0	0	0	0	0
16:30:00	60	5	582	33	116	10	5	0	44	1	13	0	0	0	1	0	0	0	0	0
16:45:00	64	4	623	41	129	13	5	0	46	2	14	1	0	0	1	0	0	0	0	0
17:00:00	70	6	686	63	136	7	5	0	48	2	15	1	0	0	1	0	0	0	0	0
17:15:00	78	8	727	41	146	10	5	0	49	1	15	0	0	0	1	0	0	0	0	0
17:30:00	81	3	785	58	150	4	5	0	50	1	15	0	0	0	1	0	0	0	0	0
17:45:00	87	6	833	48	157	7	5	0	50	0	15	0	0	0	1	0	0	0	0	0
18:00:00	92	5	864	31	167	10	5	0	53	3	15	0	0	0	1	0	0	0	0	0
18:15:00	92	0	864	0	167	0	5	0	53	0	15	0	0	0	1	0	0	0	0	0
18:15:15	92	0	864	0	167	0	5	0	53	0	15	0	0	0	1	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100005

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Buses - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	1	1	21	21	8	8	0	0	1	1	0	0	0	0	0	0	0	0	0	0
7:30:00	5	4	46	25	14	6	0	0	1	0	0	0	0	0	0	0	0	0	0	0
7:45:00	14	9	70	24	22	8	0	0	3	2	0	0	0	0	0	0	0	0	0	0
8:00:00	17	3	103	33	30	8	2	2	6	3	0	0	0	0	0	0	0	0	0	0
8:15:00	25	8	136	33	42	12	2	0	7	1	0	0	0	0	0	0	0	0	1	1
8:30:00	31	6	154	18	47	5	2	0	8	1	0	0	0	0	0	0	0	0	1	0
8:45:00	39	8	179	25	61	14	3	1	10	2	0	0	0	0	0	0	0	0	1	0
9:00:00	48	9	193	14	67	6	6	3	13	3	0	0	0	0	0	0	0	0	1	0
9:15:00	54	6	217	24	75	8	7	1	14	1	0	0	0	0	0	0	0	0	1	0
9:30:00	62	8	239	22	80	5	7	0	16	2	0	0	0	0	0	0	0	0	1	0
9:45:00	70	8	263	24	85	5	7	0	16	0	1	1	0	0	0	0	0	0	1	0
10:00:00	84	14	282	19	92	7	8	1	16	0	2	1	0	0	0	0	0	0	1	0
10:15:00	84	0	282	0	92	0	8	0	16	0	2	0	0	0	0	0	0	0	1	0
15:00:00	84	0	282	0	92	0	8	0	16	0	2	0	0	0	0	0	0	0	1	0
15:15:00	97	13	306	24	102	10	8	0	18	2	3	1	0	0	0	0	0	0	1	0
15:30:00	108	11	323	17	105	3	8	0	18	0	3	0	0	0	0	0	0	0	1	0
15:45:00	123	15	343	20	111	6	9	1	18	0	3	0	0	0	0	0	0	0	1	0
16:00:00	128	5	378	35	116	5	9	0	18	0	4	1	0	0	0	0	0	0	1	0
16:15:00	141	13	404	26	123	7	9	0	20	2	4	0	0	0	0	0	0	0	1	0
16:30:00	154	13	430	26	137	14	9	0	20	0	4	0	0	0	0	0	0	0	1	0
16:45:00	165	11	460	30	145	8	10	1	22	2	4	0	0	0	0	0	0	0	1	0
17:00:00	171	6	482	22	155	10	11	1	22	0	4	0	0	0	0	0	0	0	1	0
17:15:00	183	12	516	34	160	5	12	1	23	1	5	1	0	0	0	0	0	0	1	0
17:30:00	190	7	548	32	171	11	14	2	23	0	5	0	0	0	0	0	0	0	1	0
17:45:00	191	1	572	24	179	8	14	0	23	0	6	1	0	0	0	0	0	0	1	0
18:00:00	200	9	601	29	183	4	14	0	25	2	7	1	0	0	0	0	0	0	1	0
18:15:00	200	0	601	0	183	0	14	0	25	0	7	0	0	0	0	0	0	0	1	0
18:15:15	200	0	601	0	183	0	14	0	25	0	7	0	0	0	0	0	0	0	1	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 10:00:00

One Hour Peak
From: 7:45:00
To: 8:45:00

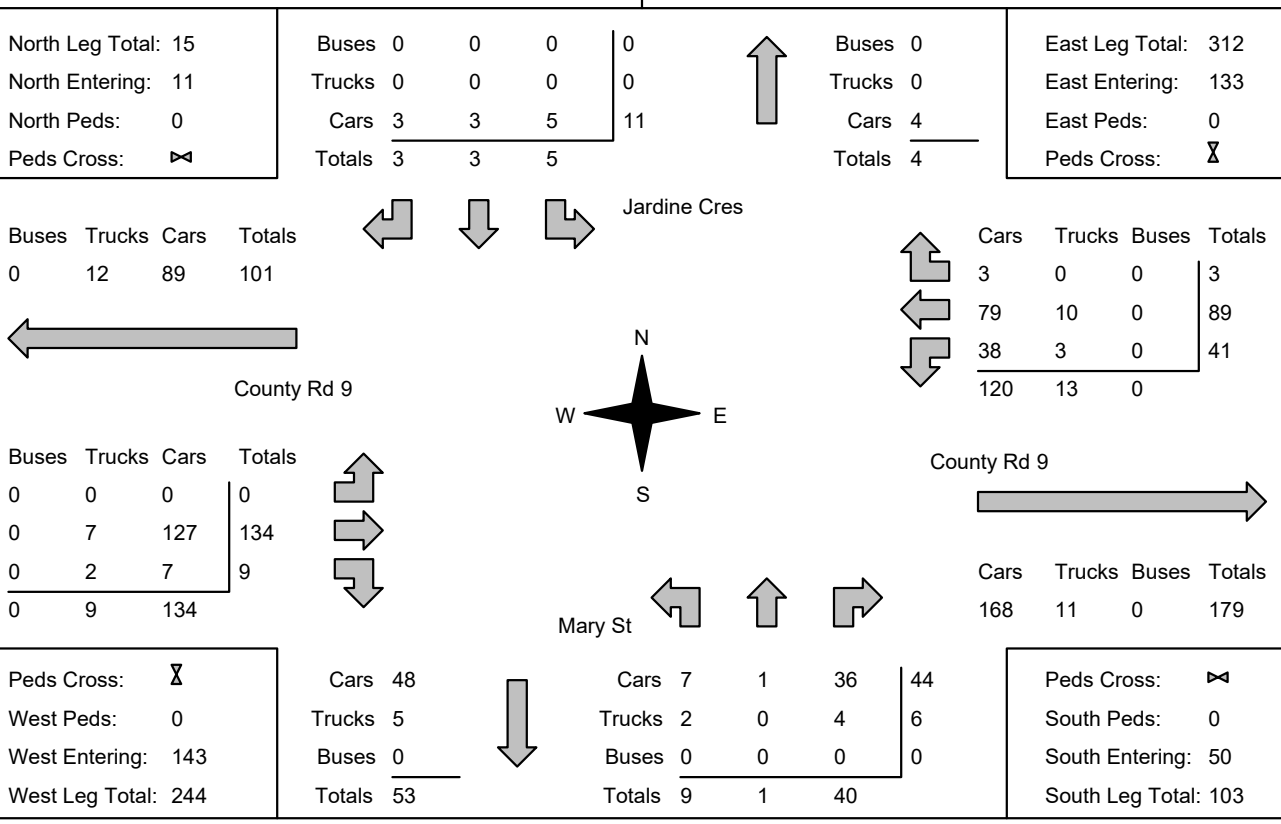
Municipality: Creemore
Site #: 2512100006
Intersection: County Rd 9 & Mary St
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: County Rd 9 runs W/E



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 16:15:00
To: 17:15:00

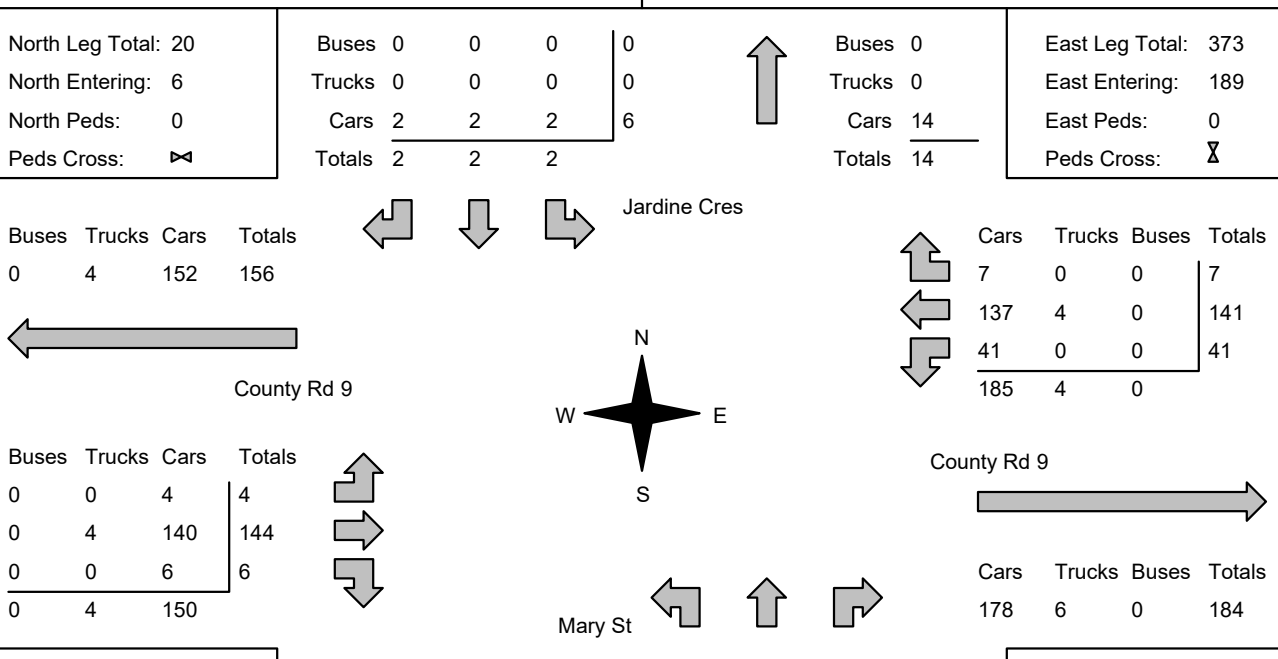
Municipality: Creemore
Site #: 2512100006
Intersection: County Rd 9 & Mary St
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: County Rd 9 runs W/E



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Total Count Diagram

Municipality: Creemore
Site #: 2512100006
Intersection: County Rd 9 & Mary St
TFR File #: 1
Count date: 29-Jul-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: County Rd 9 runs W/E

North Leg Total: 78
North Entering: 42
North Peds: 0
Peds Cross: ⋈

Buses	0	0	0	0
Trucks	0	1	0	1
Cars	10	8	23	41
Totals	10	9	23	

Buses	0
Trucks	0
Cars	36
Totals	36

East Leg Total: 1853
East Entering: 893
East Peds: 5
Peds Cross: ⧖

Jardine Cres

Buses	Trucks	Cars	Totals
0	41	700	741

Cars	Trucks	Buses	Totals
20	0	0	20
650	37	0	687
179	7	0	186
849	44	0	

County Rd 9

N
W E
S

Buses	Trucks	Cars	Totals
0	0	6	6
0	36	682	718
0	3	32	35
0	39	720	

County Rd 9

Cars	Trucks	Buses	Totals
915	45	0	960

Mary St

Peds Cross: ⧖
West Peds: 0
West Entering: 759
West Leg Total: 1500

Cars	219
Trucks	11
Buses	0
Totals	230

Cars	40	10	210	260
Trucks	4	0	9	13
Buses	0	0	0	0
Totals	44	10	219	

Peds Cross: ⋈
South Peds: 1
South Entering: 273
South Leg Total: 503

Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: County Rd 9 & Mary St | **Count Date:** 29-Jul-25 | **Municipality:** Creemore

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*8*	*0*	*2*	*10*	*0*
9:00:00	*6*	*3*	*2*	*11*	*0*
10:00:00	*0*	*1*	*0*	*1*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*1*	*0*	*1*	*2*	*0*
17:00:00	*3*	*3*	*1*	*7*	*0*
18:00:00	*5*	*2*	*4*	*11*	*0*
Totals:	23	9	10	42	0

North/South Total Approaches: 315

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*3*	*0*	*34*	*37*	*0*
9:00:00	*11*	*3*	*35*	*49*	*0*
10:00:00	*3*	*0*	*32*	*35*	*1*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*12*	*2*	*42*	*56*	*0*
17:00:00	*9*	*5*	*41*	*55*	*0*
18:00:00	*6*	*0*	*35*	*41*	*0*
S Totals:	44	10	219	273	1

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*18*	*70*	*2*	*90*	*2*
9:00:00	*35*	*80*	*2*	*117*	*0*
10:00:00	*31*	*102*	*2*	*135*	*2*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*31*	*118*	*3*	*152*	*1*
17:00:00	*43*	*138*	*6*	*187*	*0*
18:00:00	*28*	*179*	*5*	*212*	*0*
Totals:	186	687	20	893	5

East/West Total Approaches: 1652

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Buses				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*100*	*5*	*105*	*0*
9:00:00	*0*	*114*	*8*	*122*	*0*
10:00:00	*0*	*112*	*6*	*118*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*0*	*123*	*5*	*128*	*0*
17:00:00	*4*	*140*	*5*	*149*	*0*
18:00:00	*2*	*129*	*6*	*137*	*0*
W Totals:	6	718	35	759	0

Calculated Values for Traffic Crossing Major Street

Hours Ending:	*7:00*	*8:00*	*9:00*	*10:00*	*15:00*	*16:00*	*17:00*	*18:00*
Crossing Values:	*0*	*13*	*20*	*6*	*0*	*16*	*17*	*13*

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100006

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Buses - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	6	5	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	8	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	8	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	11	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	11	0	3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	13	2	3	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	14	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15:00	14	0	4	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30:00	14	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45:00	14	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00:00	14	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15:00	14	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00:00	14	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15:00	14	0	4	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30:00	14	0	4	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45:00	15	1	4	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00:00	15	0	4	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15:00	16	1	5	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30:00	16	0	6	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	17	1	7	1	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	18	1	7	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15:00	18	0	7	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30:00	20	2	8	1	7	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
17:45:00	21	1	8	0	8	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
18:00:00	23	2	8	0	10	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0
18:15:00	23	0	8	0	10	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
18:15:15	23	0	8	0	10	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100006

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Buses - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	2	2	14	14	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
7:30:00	4	2	25	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	1
7:45:00	6	2	40	15	1	1	0	0	3	2	0	0	0	0	0	0	0	0	2	0
8:00:00	18	12	65	25	2	1	0	0	5	2	0	0	0	0	0	0	0	0	2	0
8:15:00	22	4	84	19	4	2	1	1	5	0	0	0	0	0	0	0	0	0	2	0
8:30:00	32	10	102	18	4	0	2	1	8	3	0	0	0	0	0	0	0	0	2	0
8:45:00	44	12	119	17	4	0	3	1	13	5	0	0	0	0	0	0	0	0	2	0
9:00:00	50	6	137	18	4	0	3	0	13	0	0	0	0	0	0	0	0	0	2	0
9:15:00	57	7	161	24	4	0	3	0	15	2	0	0	0	0	0	0	0	0	2	0
9:30:00	63	6	181	20	5	1	4	1	16	1	0	0	0	0	0	0	0	0	4	2
9:45:00	70	7	201	20	5	0	5	1	20	4	0	0	0	0	0	0	0	0	4	0
10:00:00	79	9	232	31	6	1	5	0	20	0	0	0	0	0	0	0	0	0	4	0
10:15:00	79	0	232	0	6	0	5	0	20	0	0	0	0	0	0	0	0	0	4	0
15:00:00	79	0	232	0	6	0	5	0	20	0	0	0	0	0	0	0	0	0	4	0
15:15:00	83	4	263	31	7	1	5	0	20	0	0	0	0	0	0	0	0	0	5	1
15:30:00	89	6	292	29	7	0	5	0	21	1	0	0	0	0	0	0	0	0	5	0
15:45:00	98	9	309	17	9	2	6	1	24	3	0	0	0	0	0	0	0	0	5	0
16:00:00	109	11	343	34	9	0	6	0	27	3	0	0	0	0	0	0	0	0	5	0
16:15:00	119	10	375	32	10	1	7	1	27	0	0	0	0	0	0	0	0	0	5	0
16:30:00	135	16	412	37	10	0	7	0	31	4	0	0	0	0	0	0	0	0	5	0
16:45:00	140	5	442	30	13	3	7	0	31	0	0	0	0	0	0	0	0	0	5	0
17:00:00	151	11	477	35	15	2	7	0	31	0	0	0	0	0	0	0	0	0	5	0
17:15:00	160	9	512	35	17	2	7	0	31	0	0	0	0	0	0	0	0	0	5	0
17:30:00	166	6	545	33	18	1	7	0	33	2	0	0	0	0	0	0	0	0	5	0
17:45:00	172	6	584	39	20	2	7	0	34	1	0	0	0	0	0	0	0	0	5	0
18:00:00	179	7	650	66	20	0	7	0	37	3	0	0	0	0	0	0	0	0	5	0
18:15:00	179	0	650	0	20	0	7	0	37	0	0	0	0	0	0	0	0	0	5	0
18:15:15	179	0	650	0	20	0	7	0	37	0	0	0	0	0	0	0	0	0	5	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100006

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Buses - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	1	1	0	0	14	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	1	0	0	0	20	6	1	1	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	2	1	0	0	34	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	4	2	0	0	41	7	1	0	0	0	1	1	0	0	0	0	0	0	0	0
8:30:00	7	3	1	1	49	8	3	2	0	0	1	0	0	0	0	0	0	0	0	0
8:45:00	8	1	1	0	56	7	3	0	0	0	4	3	0	0	0	0	0	0	0	0
9:00:00	11	3	3	2	64	8	3	0	0	0	5	1	0	0	0	0	0	0	0	0
9:15:00	11	0	3	0	72	8	3	0	0	0	5	0	0	0	0	0	0	0	0	0
9:30:00	11	0	3	0	81	9	3	0	0	0	6	1	0	0	0	0	0	0	0	0
9:45:00	11	0	3	0	89	8	4	1	0	0	6	0	0	0	0	0	0	0	0	0
10:00:00	13	2	3	0	95	6	4	0	0	0	6	0	0	0	0	0	0	0	1	1
10:15:00	13	0	3	0	95	0	4	0	0	0	6	0	0	0	0	0	0	0	1	0
15:00:00	13	0	3	0	95	0	4	0	0	0	6	0	0	0	0	0	0	0	1	0
15:15:00	15	2	4	1	105	10	4	0	0	0	6	0	0	0	0	0	0	0	1	0
15:30:00	19	4	4	0	116	11	4	0	0	0	6	0	0	0	0	0	0	0	1	0
15:45:00	21	2	5	1	128	12	4	0	0	0	6	0	0	0	0	0	0	0	1	0
16:00:00	25	4	5	0	137	9	4	0	0	0	6	0	0	0	0	0	0	0	1	0
16:15:00	25	0	7	2	148	11	4	0	0	0	6	0	0	0	0	0	0	0	1	0
16:30:00	29	4	8	1	164	16	4	0	0	0	6	0	0	0	0	0	0	0	1	0
16:45:00	32	3	8	0	167	3	4	0	0	0	8	2	0	0	0	0	0	0	1	0
17:00:00	34	2	10	2	176	9	4	0	0	0	8	0	0	0	0	0	0	0	1	0
17:15:00	38	4	10	0	184	8	4	0	0	0	8	0	0	0	0	0	0	0	1	0
17:30:00	39	1	10	0	194	10	4	0	0	0	8	0	0	0	0	0	0	0	1	0
17:45:00	39	0	10	0	200	6	4	0	0	0	8	0	0	0	0	0	0	0	1	0
18:00:00	40	1	10	0	210	10	4	0	0	0	9	1	0	0	0	0	0	0	1	0
18:15:00	40	0	10	0	210	0	4	0	0	0	9	0	0	0	0	0	0	0	1	0
18:15:15	40	0	10	0	210	0	4	0	0	0	9	0	0	0	0	0	0	0	1	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

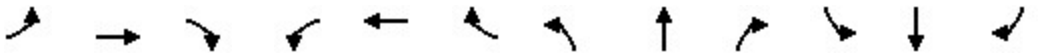
Accu-Traffic Inc.

Count Date: 29-Jul-25 Site #: 2512100006

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Buses - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	22	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	39	17	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	56	17	2	1	0	0	3	3	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	92	36	4	2	0	0	8	5	1	1	0	0	0	0	0	0	0	0
8:15:00	0	0	127	35	6	2	0	0	8	0	1	0	0	0	0	0	0	0	0	0
8:30:00	0	0	150	23	6	0	0	0	10	2	2	1	0	0	0	0	0	0	0	0
8:45:00	0	0	183	33	9	3	0	0	10	0	2	0	0	0	0	0	0	0	0	0
9:00:00	0	0	199	16	11	2	0	0	15	5	2	0	0	0	0	0	0	0	0	0
9:15:00	0	0	226	27	12	1	0	0	16	1	2	0	0	0	0	0	0	0	0	0
9:30:00	0	0	251	25	13	1	0	0	17	1	2	0	0	0	0	0	0	0	0	0
9:45:00	0	0	274	23	14	1	0	0	18	1	2	0	0	0	0	0	0	0	0	0
10:00:00	0	0	305	31	16	2	0	0	21	3	3	1	0	0	0	0	0	0	0	0
10:15:00	0	0	305	0	16	0	0	0	21	0	3	0	0	0	0	0	0	0	0	0
15:00:00	0	0	305	0	16	0	0	0	21	0	3	0	0	0	0	0	0	0	0	0
15:15:00	0	0	336	31	16	0	0	0	23	2	3	0	0	0	0	0	0	0	0	0
15:30:00	0	0	359	23	18	2	0	0	23	0	3	0	0	0	0	0	0	0	0	0
15:45:00	0	0	392	33	19	1	0	0	24	1	3	0	0	0	0	0	0	0	0	0
16:00:00	0	0	423	31	21	2	0	0	26	2	3	0	0	0	0	0	0	0	0	0
16:15:00	1	1	456	33	21	0	0	0	27	1	3	0	0	0	0	0	0	0	0	0
16:30:00	3	2	491	35	23	2	0	0	27	0	3	0	0	0	0	0	0	0	0	0
16:45:00	3	0	531	40	23	0	0	0	28	1	3	0	0	0	0	0	0	0	0	0
17:00:00	4	1	560	29	26	3	0	0	29	1	3	0	0	0	0	0	0	0	0	0
17:15:00	5	1	596	36	27	1	0	0	31	2	3	0	0	0	0	0	0	0	0	0
17:30:00	6	1	630	34	27	0	0	0	33	2	3	0	0	0	0	0	0	0	0	0
17:45:00	6	0	656	26	28	1	0	0	34	1	3	0	0	0	0	0	0	0	0	0
18:00:00	6	0	682	26	32	4	0	0	36	2	3	0	0	0	0	0	0	0	0	0
18:15:00	6	0	682	0	32	0	0	0	36	0	3	0	0	0	0	0	0	0	0	0
18:15:15	6	0	682	0	32	0	0	0	36	0	3	0	0	0	0	0	0	0	0	0

Appendix B:
LOS Definitions

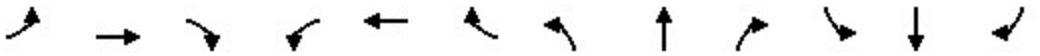
Appendix C:
Existing Condition



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	119	40	25	71	39	12	136	23	25	131	35
Future Volume (vph)	29	119	40	25	71	39	12	136	23	25	131	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.96			0.98			0.98	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1815			1793			1843			1825	
Flt Permitted		0.93			0.92			0.98			0.95	
Satd. Flow (perm)		1707			1672			1809			1753	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	33	137	46	29	82	45	14	156	26	29	151	40
RTOR Reduction (vph)	0	28	0	0	36	0	0	9	0	0	13	0
Lane Group Flow (vph)	0	188	0	0	120	0	0	187	0	0	207	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.0			8.0			21.0			21.0	
Effective Green, g (s)		8.0			8.0			21.0			21.0	
Actuated g/C Ratio		0.21			0.21			0.55			0.55	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		359			352			999			968	
v/s Ratio Prot												
v/s Ratio Perm		c0.11			0.07			0.10			c0.12	
v/c Ratio		0.52			0.34			0.19			0.21	
Uniform Delay, d1		13.3			12.8			4.2			4.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.4			0.6			0.4			0.5	
Delay (s)		14.7			13.3			4.7			4.8	
Level of Service		B			B			A			A	
Approach Delay (s/veh)		14.7			13.3			4.7			4.8	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	9.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	38.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	37.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	6	5	5	5	6	5	27	5	6	20	5
Future Volume (Veh/h)	5	6	5	5	5	6	5	27	5	6	20	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	6	7	6	6	6	7	6	33	6	7	24	6
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	99	92	27	99	92	36	30			39		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	99	92	27	99	92	36	30			39		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	99	99	99	99	99	100			100		
cM capacity (veh/h)	866	791	1048	867	791	1037	1583			1571		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	19	19	45	37
Volume Left	6	6	6	7
Volume Right	6	7	6	6
cSH	884	894	1583	1571
Volume to Capacity	0.02	0.02	0.00*	0.00*
Queue Length 95th (m)	0.5	0.5	0.1	0.1
Control Delay (s/veh)	9.2	9.1	1.0	1.4
Lane LOS	A	A	A	A
Approach Delay (s/veh)	9.2	9.1	1.0	1.4
Approach LOS	A	A		

Intersection Summary				
Average Delay	3.7			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

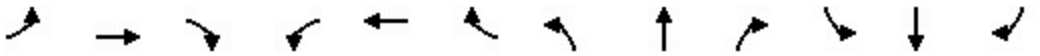


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	5	5	172	184	5
Future Volume (Veh/h)	5	5	5	172	184	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Hourly flow rate (vph)	7	7	7	226	242	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	486	246	249			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	486	246	249			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	99	99			
cM capacity (veh/h)	538	793	1317			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	14	233	249
Volume Left	7	7	0
Volume Right	7	0	7
cSH	641	1317	1700
Volume to Capacity	0.02	0.00*	0.15
Queue Length 95th (m)	0.5	0.1	0.0
Control Delay (s/veh)	10.7	0.3	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	10.7	0.3	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	23.1%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

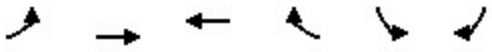


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	5	20	5	5	14	21	5	5	5	17	5	5
Future Volume (vph)	5	20	5	5	14	21	5	5	5	17	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	22	6	6	16	23	6	6	6	19	6	6

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	34	45	18	31
Volume Left (vph)	6	6	6	19
Volume Right (vph)	6	23	6	6
Hadj (s)	-0.04	-0.25	-0.10	0.04
Departure Headway (s)	4.0	3.8	4.0	4.1
Degree Utilization, x	0.04	0.05	0.02	0.04
Capacity (veh/h)	879	931	871	852
Control Delay (s/veh)	7.2	7.0	7.1	7.3
Approach Delay (s/veh)	7.2	7.0	7.1	7.3
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.1			
Level of Service	A			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

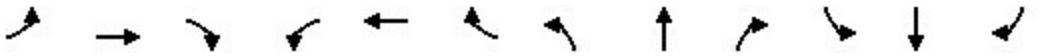


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	28	23	5	5	5
Future Volume (Veh/h)	5	28	23	5	5	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	30	25	5	5	5
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	30				68	28
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	30				68	28
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1583				935	1048

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	35	30	10
Volume Left	5	0	5
Volume Right	0	5	5
cSH	1583	1700	988
Volume to Capacity	0.00*	0.02	0.01
Queue Length 95th (m)	0.1	0.0	0.2
Control Delay (s/veh)	1.1	0.0	8.7
Lane LOS	A		A
Approach Delay (s/veh)	1.1	0.0	8.7
Approach LOS			A

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	15.7%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

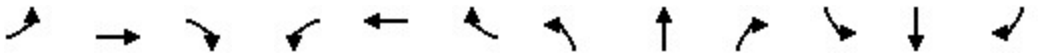


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	137	10	42	91	5	10	5	41	6	5	5
Future Volume (Veh/h)	5	137	10	42	91	5	10	5	41	6	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	6	163	12	50	108	6	12	6	49	7	6	6
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	114			175			401	395	169	444	398	111
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	114			175			401	395	169	444	398	111
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			96			98	99	94	99	99	99
cM capacity (veh/h)	1475			1401			535	520	875	476	518	942

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	181	164	67	19
Volume Left	6	50	12	7
Volume Right	12	6	49	6
cSH	1475	1401	745	582
Volume to Capacity	0.00*	0.04	0.09	0.03
Queue Length 95th (m)	0.1	0.8	2.2	0.8
Control Delay (s/veh)	0.3	2.5	10.3	11.4
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.3	2.5	10.3	11.4
Approach LOS			B	B

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	29.2%	ICU Level of Service	A
Analysis Period (min)	15		

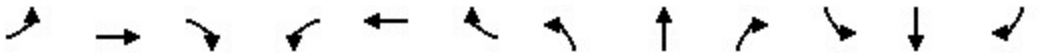
* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	124	36	44	129	53	22	173	46	55	183	34
Future Volume (vph)	44	124	36	44	129	53	22	173	46	55	183	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.97			0.97			0.98	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1819			1806			1827			1833	
Flt Permitted		0.88			0.90			0.96			0.90	
Satd. Flow (perm)		1611			1642			1761			1662	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	51	143	41	51	148	61	25	199	53	63	210	39
RTOR Reduction (vph)	0	22	0	0	32	0	0	15	0	0	9	0
Lane Group Flow (vph)	0	213	0	0	228	0	0	262	0	0	303	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.8			8.8			20.4			20.4	
Effective Green, g (s)		8.8			8.8			20.4			20.4	
Actuated g/C Ratio		0.23			0.23			0.53			0.53	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		371			378			940			887	
v/s Ratio Prot												
v/s Ratio Perm		0.13			c0.14			0.15			c0.18	
v/c Ratio		0.58			0.60			0.28			0.34	
Uniform Delay, d1		13.0			13.1			4.9			5.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.2			2.7			0.7			1.0	
Delay (s)		15.2			15.9			5.6			6.1	
Level of Service		B			B			A			A	
Approach Delay (s/veh)		15.2			15.9			5.6			6.1	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	10.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	38.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	50.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	6	5	5	9	13	5	30	5	6	20	5
Future Volume (Veh/h)	7	6	5	5	9	13	5	30	5	6	20	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	8	7	6	6	11	16	6	36	6	7	24	6
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	114	95	27	102	95	39	30			42		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	114	95	27	102	95	39	30			42		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	99	99	99	99	98	100			100		
cM capacity (veh/h)	836	788	1048	863	788	1033	1583			1567		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	21	33	48	37
Volume Left	8	6	6	7
Volume Right	6	16	6	6
cSH	869	907	1583	1567
Volume to Capacity	0.02	0.04	0.00*	0.00*
Queue Length 95th (m)	0.6	0.9	0.1	0.1
Control Delay (s/veh)	9.2	9.1	0.9	1.4
Lane LOS	A	A	A	A
Approach Delay (s/veh)	9.2	9.1	0.9	1.4
Approach LOS	A	A		

Intersection Summary				
Average Delay	4.3			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

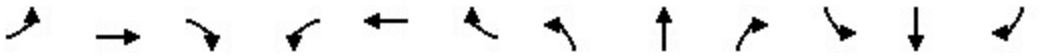


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	5	5	251	234	5
Future Volume (Veh/h)	5	5	5	251	234	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Hourly flow rate (vph)	7	7	7	330	308	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	656	312	315			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	656	312	315			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	99			
cM capacity (veh/h)	428	729	1245			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	14	337	315
Volume Left	7	7	0
Volume Right	7	0	7
cSH	539	1245	1700
Volume to Capacity	0.03	0.00*	0.19
Queue Length 95th (m)	0.6	0.1	0.0
Control Delay (s/veh)	11.9	0.2	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	11.9	0.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	27.2%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

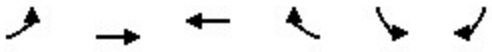


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	7	29	5	5	21	28	5	5	5	13	6	5
Future Volume (vph)	7	29	5	5	21	28	5	5	5	13	6	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	8	32	6	6	23	31	6	6	6	14	7	6

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	46	60	18	27
Volume Left (vph)	8	6	6	14
Volume Right (vph)	6	31	6	6
Hadj (s)	-0.01	-0.26	-0.10	0.00
Departure Headway (s)	4.0	3.8	4.0	4.1
Degree Utilization, x	0.05	0.06	0.02	0.03
Capacity (veh/h)	873	933	855	843
Control Delay (s/veh)	7.3	7.0	7.1	7.3
Approach Delay (s/veh)	7.3	7.0	7.1	7.3
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.2		
Level of Service	A		
Intersection Capacity Utilization	13.6%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

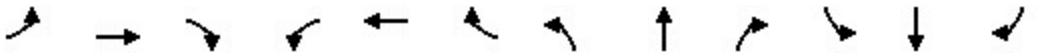


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		Y	
Traffic Volume (veh/h)	5	42	32	5	5	5
Future Volume (Veh/h)	5	42	32	5	5	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	46	35	5	5	5
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	40				94	38
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	40				94	38
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1570				903	1035

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	51	40	10
Volume Left	5	0	5
Volume Right	0	5	5
cSH	1570	1700	965
Volume to Capacity	0.00*	0.02	0.01
Queue Length 95th (m)	0.1	0.0	0.2
Control Delay (s/veh)	0.7	0.0	8.8
Lane LOS	A		A
Approach Delay (s/veh)	0.7	0.0	8.8
Approach LOS			A

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	16.4%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



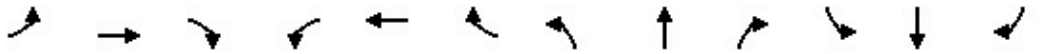
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	147	7	42	15	8	14	5	39	5	5	5
Future Volume (Veh/h)	5	147	7	42	15	8	14	5	39	5	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	6	175	8	50	18	10	17	6	46	6	6	6
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	28			183			323	319	179	363	318	23
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	28			183			323	319	179	363	318	23
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			96			97	99	95	99	99	99
cM capacity (veh/h)	1585			1392			603	574	864	540	575	1054

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	189	78	69	18
Volume Left	6	50	17	6
Volume Right	8	10	46	6
cSH	1585	1392	751	661
Volume to Capacity	0.00*	0.04	0.09	0.03
Queue Length 95th (m)	0.1	0.8	2.3	0.6
Control Delay (s/veh)	0.3	5.0	10.3	10.6
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.3	5.0	10.3	10.6
Approach LOS			B	B

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	26.1%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

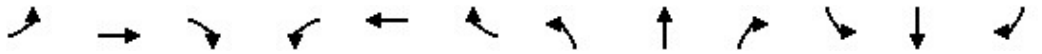
Appendix D:
Future Background Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	179	49	29	94	43	15	157	29	28	147	42
Future Volume (vph)	44	179	49	29	94	43	15	157	29	28	147	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.97			0.98			0.97	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1823			1802			1840			1823	
Flt Permitted		0.92			0.92			0.97			0.95	
Satd. Flow (perm)		1685			1672			1797			1738	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	51	206	56	33	108	49	17	180	33	32	169	48
RTOR Reduction (vph)	0	20	0	0	32	0	0	12	0	0	17	0
Lane Group Flow (vph)	0	293	0	0	158	0	0	218	0	0	232	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		11.8			11.8			18.9			18.9	
Effective Green, g (s)		11.8			11.8			18.9			18.9	
Actuated g/C Ratio		0.30			0.30			0.48			0.48	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		500			496			855			827	
v/s Ratio Prot												
v/s Ratio Perm		c0.17			0.09			0.12			c0.13	
v/c Ratio		0.59			0.32			0.26			0.28	
Uniform Delay, d1		11.9			10.8			6.2			6.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.8			0.4			0.7			0.8	
Delay (s)		13.6			11.2			6.9			7.1	
Level of Service		B			B			A			A	
Approach Delay (s/veh)		13.6			11.2			6.9			7.1	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	39.7	Sum of lost time (s)	9.0
Intersection Capacity Utilization	45.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	7	6	6	6	16	6	37	6	15	35	6
Future Volume (Veh/h)	6	7	6	6	6	16	6	37	6	15	35	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	7	8	7	7	7	19	7	45	7	18	42	7
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	167	148	46	155	148	49	49			52		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	167	148	46	155	148	49	49			52		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	99	99	99	99	98	100			99		
cM capacity (veh/h)	768	732	1024	790	732	1020	1558			1554		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	22	33	59	67
Volume Left	7	7	7	18
Volume Right	7	19	7	7
cSH	818	891	1558	1554
Volume to Capacity	0.03	0.04	0.00*	0.01
Queue Length 95th (m)	0.6	0.9	0.1	0.3
Control Delay (s/veh)	9.5	9.2	0.9	2.0
Lane LOS	A	A	A	A
Approach Delay (s/veh)	9.5	9.2	0.9	2.0
Approach LOS	A	A		

Intersection Summary				
Average Delay	3.9			
Intersection Capacity Utilization	15.6%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

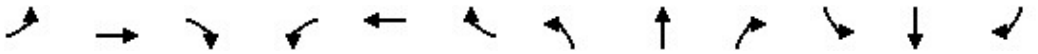


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	15	19	10	190	203	9
Future Volume (Veh/h)	15	19	10	190	203	9
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Hourly flow rate (vph)	20	25	13	250	267	12
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	549	273	279			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	549	273	279			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	96	97	99			
cM capacity (veh/h)	492	766	1284			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	45	263	279
Volume Left	20	13	0
Volume Right	25	0	12
cSH	614	1284	1700
Volume to Capacity	0.07	0.01	0.16
Queue Length 95th (m)	1.8	0.2	0.0
Control Delay (s/veh)	11.3	0.5	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	11.3	0.5	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	28.2%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	6	39	6	6	21	30	6	6	6	32	6	6
Future Volume (vph)	6	39	6	6	21	30	6	6	6	32	6	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	7	43	7	7	23	33	7	7	7	36	7	7

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	57	63	21	50
Volume Left (vph)	7	7	7	36
Volume Right (vph)	7	33	7	7
Hadj (s)	-0.02	-0.26	-0.10	0.09
Departure Headway (s)	4.1	3.9	4.1	4.3
Degree Utilization, x	0.06	0.07	0.02	0.06
Capacity (veh/h)	855	910	840	817
Control Delay (s/veh)	7.4	7.1	7.2	7.5
Approach Delay (s/veh)	7.4	7.1	7.2	7.5
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.3			
Level of Service	A			
Intersection Capacity Utilization	15.8%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

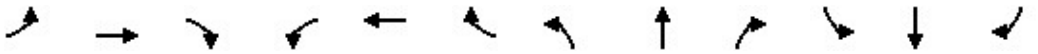


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	55	33	6	6	8
Future Volume (Veh/h)	7	55	33	6	6	8
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	60	36	7	7	9
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	43				116	40
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	43				116	40
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	1566				876	1032

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	68	43	16
Volume Left	8	0	7
Volume Right	0	7	9
cSH	1566	1700	958
Volume to Capacity	0.00*	0.03	0.02
Queue Length 95th (m)	0.1	0.0	0.4
Control Delay (s/veh)	0.9	0.0	8.8
Lane LOS	A		A
Approach Delay (s/veh)	0.9	0.0	8.8
Approach LOS			A

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	18.8%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

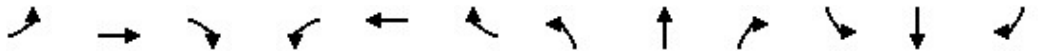


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	179	16	46	126	6	27	6	45	7	6	6
Future Volume (Veh/h)	6	179	16	46	126	6	27	6	45	7	6	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	7	213	19	55	150	7	32	7	54	8	7	7
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	157			232			511	504	223	558	510	154
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	157			232			511	504	223	558	510	154
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			96			93	98	93	98	98	99
cM capacity (veh/h)	1423			1336			448	449	817	392	445	892

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	239	212	93	22
Volume Left	7	55	32	8
Volume Right	19	7	54	7
cSH	1423	1336	607	501
Volume to Capacity	0.00*	0.04	0.15	0.04
Queue Length 95th (m)	0.1	1.0	4.1	1.0
Control Delay (s/veh)	0.3	2.3	12.0	12.5
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.3	2.3	12.0	12.5
Approach LOS			B	B

Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	36.1%	ICU Level of Service	A
Analysis Period (min)	15		

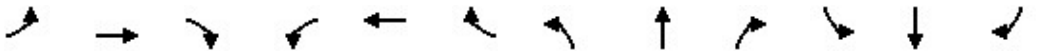
* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	169	43	52	194	59	29	195	53	61	209	49
Future Volume (vph)	56	169	43	52	194	59	29	195	53	61	209	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.97			0.97			0.98	
Flt Protected		0.99			0.99			0.99			0.99	
Satd. Flow (prot)		1824			1819			1825			1827	
Flt Permitted		0.88			0.91			0.94			0.89	
Satd. Flow (perm)		1614			1668			1728			1634	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	64	194	49	60	223	68	33	224	61	70	240	56
RTOR Reduction (vph)	0	17	0	0	22	0	0	17	0	0	13	0
Lane Group Flow (vph)	0	290	0	0	329	0	0	301	0	0	353	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.6			12.6			18.2			18.2	
Effective Green, g (s)		12.6			12.6			18.2			18.2	
Actuated g/C Ratio		0.32			0.32			0.46			0.46	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		510			528			790			747	
v/s Ratio Prot												
v/s Ratio Perm		0.18			c0.20			0.17			c0.22	
v/c Ratio		0.57			0.62			0.38			0.47	
Uniform Delay, d1		11.3			11.6			7.1			7.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.5			2.3			1.4			2.1	
Delay (s)		12.8			13.9			8.5			9.6	
Level of Service		B			B			A			A	
Approach Delay (s/veh)		12.8			13.9			8.5			9.6	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	39.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	57.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	7	6	6	10	25	6	49	6	18	34	6
Future Volume (Veh/h)	8	7	6	6	10	25	6	49	6	18	34	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	10	8	7	7	12	30	7	59	7	22	41	7
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	201	169	45	176	169	63	48			66		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	201	169	45	176	169	63	48			66		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	99	99	99	98	97	100			99		
cM capacity (veh/h)	715	711	1025	763	711	1002	1559			1536		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	25	49	73	70
Volume Left	10	7	7	22
Volume Right	7	30	7	7
cSH	780	875	1559	1536
Volume to Capacity	0.03	0.06	0.00*	0.01
Queue Length 95th (m)	0.8	1.3	0.1	0.3
Control Delay (s/veh)	9.8	9.4	0.7	2.4
Lane LOS	A	A	A	A
Approach Delay (s/veh)	9.8	9.4	0.7	2.4
Approach LOS	A	A		

Intersection Summary				
Average Delay	4.3			
Intersection Capacity Utilization	17.1%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

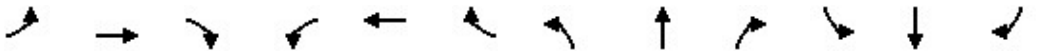


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	14	19	277	258	16
Future Volume (Veh/h)	12	14	19	277	258	16
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Hourly flow rate (vph)	16	18	25	364	339	21
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	764	350	360			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	764	350	360			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	96	97	98			
cM capacity (veh/h)	364	694	1199			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	34	389	360
Volume Left	16	25	0
Volume Right	18	0	21
cSH	487	1199	1700
Volume to Capacity	0.07	0.02	0.21
Queue Length 95th (m)	1.7	0.5	0.0
Control Delay (s/veh)	13.0	0.7	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	13.0	0.7	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	40.2%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	8	43	6	6	39	46	6	6	6	26	7	6
Future Volume (vph)	8	43	6	6	39	46	6	6	6	26	7	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	9	48	7	7	43	51	7	7	7	29	8	7

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	64	101	21	44
Volume Left (vph)	9	7	7	29
Volume Right (vph)	7	51	7	7
Hadj (s)	0.00	-0.26	-0.10	0.07
Departure Headway (s)	4.1	3.9	4.2	4.3
Degree Utilization, x	0.07	0.11	0.02	0.05
Capacity (veh/h)	848	912	815	786
Control Delay (s/veh)	7.5	7.3	7.3	7.6
Approach Delay (s/veh)	7.5	7.3	7.3	7.6
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.4			
Level of Service	A			
Intersection Capacity Utilization	16.7%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

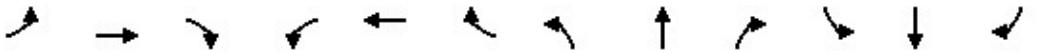


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	63	62	6	6	8
Future Volume (Veh/h)	9	63	62	6	6	8
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	68	67	7	7	9
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	74				159	71
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	74				159	71
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	1526				827	992

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	78	74	16
Volume Left	10	0	7
Volume Right	0	7	9
cSH	1526	1700	913
Volume to Capacity	0.00*	0.04	0.02
Queue Length 95th (m)	0.2	0.0	0.4
Control Delay (s/veh)	1.0	0.0	9.0
Lane LOS	A		A
Approach Delay (s/veh)	1.0	0.0	9.0
Approach LOS			A

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	20.5%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

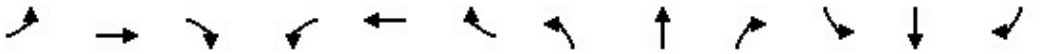


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	196	24	46	49	9	26	6	43	6	6	6
Future Volume (Veh/h)	6	196	24	46	49	9	26	6	43	6	6	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	7	233	29	55	58	11	31	7	51	7	7	7
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	69			262			446	441	248	490	450	64
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	69			262			446	441	248	490	450	64
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			96			94	99	94	98	99	99
cM capacity (veh/h)	1532			1302			495	487	791	436	481	1001

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	269	124	89	21
Volume Left	7	55	31	7
Volume Right	29	11	51	7
cSH	1532	1302	629	559
Volume to Capacity	0.00*	0.04	0.14	0.04
Queue Length 95th (m)	0.1	1.0	3.7	0.9
Control Delay (s/veh)	0.2	3.7	11.7	11.7
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.2	3.7	11.7	11.7
Approach LOS			B	B

Intersection Summary				
Average Delay	3.6			
Intersection Capacity Utilization	33.6%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	230	49	32	115	48	15	172	31	30	162	43
Future Volume (vph)	35	230	49	32	115	48	15	172	31	30	162	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.97			0.98			0.98	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1834			1806			1841			1826	
Flt Permitted		0.94			0.92			0.97			0.94	
Satd. Flow (perm)		1737			1670			1798			1734	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	40	264	56	37	132	55	17	198	36	34	186	49
RTOR Reduction (vph)	0	17	0	0	29	0	0	12	0	0	16	0
Lane Group Flow (vph)	0	343	0	0	195	0	0	239	0	0	253	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.5			12.5			18.2			18.2	
Effective Green, g (s)		12.5			12.5			18.2			18.2	
Actuated g/C Ratio		0.31			0.31			0.46			0.46	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		546			525			824			794	
v/s Ratio Prot												
v/s Ratio Perm		c0.20			0.12			0.13			c0.15	
v/c Ratio		0.63			0.37			0.29			0.32	
Uniform Delay, d1		11.6			10.5			6.7			6.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.3			0.4			0.9			1.1	
Delay (s)		13.9			11.0			7.6			7.9	
Level of Service		B			B			A			A	
Approach Delay (s/veh)		13.9			11.0			7.6			7.9	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	10.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	39.7	Sum of lost time (s)	9.0
Intersection Capacity Utilization	48.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	7	6	6	6	18	6	44	6	22	49	6
Future Volume (Veh/h)	6	7	6	6	6	18	6	44	6	22	49	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	7	8	7	7	7	22	7	53	7	27	59	7
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	213	191	63	198	191	57	66			60		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	213	191	63	198	191	57	66			60		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	99	99	99	99	98	100			98		
cM capacity (veh/h)	710	689	1002	736	689	1010	1536			1544		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	22	36	67	93
Volume Left	7	7	7	27
Volume Right	7	22	7	7
cSH	773	868	1536	1544
Volume to Capacity	0.03	0.04	0.00*	0.02
Queue Length 95th (m)	0.7	1.0	0.1	0.4
Control Delay (s/veh)	9.8	9.3	0.8	2.2
Lane LOS	A	A	A	A
Approach Delay (s/veh)	9.8	9.3	0.8	2.2
Approach LOS	A	A		

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	18.6%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

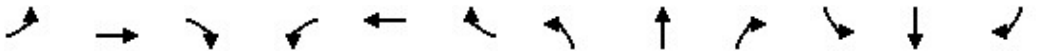


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	16	19	10	210	224	9
Future Volume (Veh/h)	16	19	10	210	224	9
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Hourly flow rate (vph)	21	25	13	276	295	12
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	603	301	307			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	603	301	307			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	97	99			
cM capacity (veh/h)	457	739	1254			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	46	289	307
Volume Left	21	13	0
Volume Right	25	0	12
cSH	577	1254	1700
Volume to Capacity	0.08	0.01	0.18
Queue Length 95th (m)	2.0	0.2	0.0
Control Delay (s/veh)	11.8	0.4	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	11.8	0.4	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	29.2%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	6	24	6	6	17	37	6	6	6	46	6	6
Future Volume (vph)	6	24	6	6	17	37	6	6	6	46	6	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	7	27	7	7	19	41	7	7	7	51	7	7

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	41	67	21	65
Volume Left (vph)	7	7	7	51
Volume Right (vph)	7	41	7	7
Hadj (s)	-0.03	-0.31	-0.10	0.13
Departure Headway (s)	4.1	3.8	4.1	4.3
Degree Utilization, x	0.05	0.07	0.02	0.08
Capacity (veh/h)	848	916	844	819
Control Delay (s/veh)	7.3	7.1	7.2	7.6
Approach Delay (s/veh)	7.3	7.1	7.2	7.6
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.3			
Level of Service	A			
Intersection Capacity Utilization	17.6%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

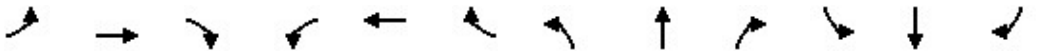


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		Y	
Traffic Volume (veh/h)	7	58	36	6	6	9
Future Volume (Veh/h)	7	58	36	6	6	9
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	63	39	7	7	10
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	46				122	43
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	46				122	43
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	1562				869	1028

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	71	46	17
Volume Left	8	0	7
Volume Right	0	7	10
cSH	1562	1700	956
Volume to Capacity	0.00*	0.03	0.02
Queue Length 95th (m)	0.1	0.0	0.4
Control Delay (s/veh)	0.9	0.0	8.8
Lane LOS	A		A
Approach Delay (s/veh)	0.9	0.0	8.8
Approach LOS			A

Intersection Summary			
Average Delay		1.6	
Intersection Capacity Utilization		18.9%	ICU Level of Service A
Analysis Period (min)		15	

* Value less than 0.01.

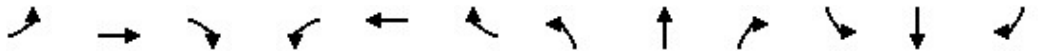


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	180	19	51	148	6	34	6	50	7	6	6
Future Volume (Veh/h)	6	180	19	51	148	6	34	6	50	7	6	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	7	214	23	61	176	7	40	7	60	8	7	7
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	183			237			552	545	226	605	553	180
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	183			237			552	545	226	605	553	180
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			95			90	98	93	98	98	99
cM capacity (veh/h)	1392			1330			419	423	814	360	419	863

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	244	244	107	22
Volume Left	7	61	40	8
Volume Right	23	7	60	7
cSH	1392	1330	576	468
Volume to Capacity	0.00*	0.05	0.19	0.05
Queue Length 95th (m)	0.1	1.1	5.1	1.1
Control Delay (s/veh)	0.3	2.3	12.7	13.1
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.3	2.3	12.7	13.1
Approach LOS			B	B

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	38.9%	ICU Level of Service	A
Analysis Period (min)	15		

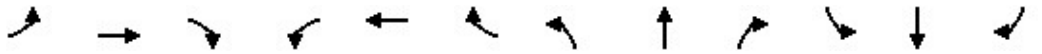
* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	209	44	57	251	65	27	215	58	67	230	41
Future Volume (vph)	54	209	44	57	251	65	27	215	58	67	230	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.97			0.98	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1831			1825			1826			1834	
Flt Permitted		0.88			0.91			0.95			0.87	
Satd. Flow (perm)		1622			1672			1737			1614	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	62	240	51	66	289	75	31	247	67	77	264	47
RTOR Reduction (vph)	0	15	0	0	18	0	0	18	0	0	10	0
Lane Group Flow (vph)	0	338	0	0	412	0	0	327	0	0	378	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		14.2			14.2			18.1			18.1	
Effective Green, g (s)		14.2			14.2			18.1			18.1	
Actuated g/C Ratio		0.34			0.34			0.44			0.44	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		557			574			761			707	
v/s Ratio Prot												
v/s Ratio Perm		0.21			c0.25			0.19			c0.23	
v/c Ratio		0.61			0.72			0.43			0.53	
Uniform Delay, d1		11.2			11.8			8.0			8.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.9			4.3			1.8			2.9	
Delay (s)		13.1			16.1			9.8			11.4	
Level of Service		B			B			A			B	
Approach Delay (s/veh)		13.1			16.1			9.8			11.4	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	12.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	41.3	Sum of lost time (s)	9.0
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	7	6	6	11	33	6	66	6	22	44	6
Future Volume (Veh/h)	9	7	6	6	11	33	6	66	6	22	44	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	11	8	7	7	13	40	7	80	7	27	53	7
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	255	212	57	219	212	84	60			87		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	255	212	57	219	212	84	60			87		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	99	99	98	96	100			98		
cM capacity (veh/h)	649	670	1010	713	670	976	1544			1509		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	26	60	94	87
Volume Left	11	7	7	27
Volume Right	7	40	7	7
cSH	726	855	1544	1509
Volume to Capacity	0.04	0.07	0.00*	0.02
Queue Length 95th (m)	0.8	1.7	0.1	0.4
Control Delay (s/veh)	10.1	9.5	0.6	2.4
Lane LOS	B	A	A	A
Approach Delay (s/veh)	10.1	9.5	0.6	2.4
Approach LOS	B	A		

Intersection Summary				
Average Delay	4.1			
Intersection Capacity Utilization	19.8%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

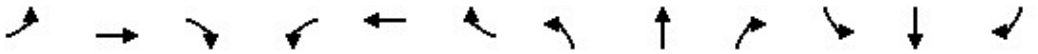


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	15	20	306	285	16
Future Volume (Veh/h)	13	15	20	306	285	16
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Hourly flow rate (vph)	17	20	26	403	375	21
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	841	386	396			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	841	386	396			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	97	98			
cM capacity (veh/h)	328	662	1163			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	37	429	396
Volume Left	17	26	0
Volume Right	20	0	21
cSH	451	1163	1700
Volume to Capacity	0.08	0.02	0.23
Queue Length 95th (m)	2.0	0.5	0.0
Control Delay (s/veh)	13.7	0.7	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	13.7	0.7	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	9	35	6	6	26	63	6	6	6	36	7	6
Future Volume (vph)	9	35	6	6	26	63	6	6	6	36	7	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	10	39	7	7	29	70	7	7	7	40	8	7

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	56	106	21	55
Volume Left (vph)	10	7	7	40
Volume Right (vph)	7	70	7	7
Hadj (s)	-0.01	-0.35	-0.10	0.10
Departure Headway (s)	4.2	3.8	4.2	4.4
Degree Utilization, x	0.06	0.11	0.02	0.07
Capacity (veh/h)	840	928	814	794
Control Delay (s/veh)	7.5	7.3	7.3	7.7
Approach Delay (s/veh)	7.5	7.3	7.3	7.7
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.4			
Level of Service	A			
Intersection Capacity Utilization	18.2%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

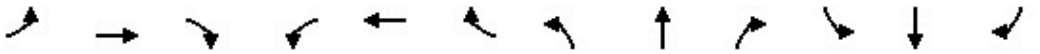


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	68	66	6	6	8
Future Volume (Veh/h)	9	68	66	6	6	8
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	74	72	7	7	9
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	79				170	76
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	79				170	76
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	1519				815	986

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	84	79	16
Volume Left	10	0	7
Volume Right	0	7	9
cSH	1519	1700	903
Volume to Capacity	0.00*	0.05	0.02
Queue Length 95th (m)	0.2	0.0	0.4
Control Delay (s/veh)	0.9	0.0	9.1
Lane LOS	A		A
Approach Delay (s/veh)	0.9	0.0	9.1
Approach LOS			A

Intersection Summary			
Average Delay		1.2	
Intersection Capacity Utilization		20.7%	ICU Level of Service
Analysis Period (min)		15	

* Value less than 0.01.

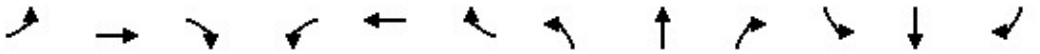


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	219	32	51	43	10	32	6	48	6	6	6
Future Volume (Veh/h)	6	219	32	51	43	10	32	6	48	6	6	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	7	261	38	61	51	12	38	7	57	7	7	7
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	63			299			484	479	280	534	492	57
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	63			299			484	479	280	534	492	57
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			95			92	98	92	98	98	99
cM capacity (veh/h)	1540			1262			465	460	759	401	452	1009

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	306	124	102	21
Volume Left	7	61	38	7
Volume Right	38	12	57	7
cSH	1540	1262	593	527
Volume to Capacity	0.00*	0.05	0.17	0.04
Queue Length 95th (m)	0.1	1.2	4.7	0.9
Control Delay (s/veh)	0.2	4.1	12.3	12.1
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.2	4.1	12.3	12.1
Approach LOS			B	B

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	36.4%	ICU Level of Service	A
Analysis Period (min)	15		

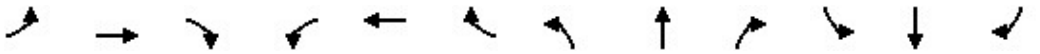
* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	245	54	35	124	52	16	190	34	34	179	47
Future Volume (vph)	39	245	54	35	124	52	16	190	34	34	179	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.97			0.98			0.98	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1832			1806			1841			1826	
Flt Permitted		0.94			0.91			0.97			0.94	
Satd. Flow (perm)		1727			1660			1795			1721	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	45	282	62	40	143	60	18	218	39	39	206	54
RTOR Reduction (vph)	0	17	0	0	30	0	0	12	0	0	16	0
Lane Group Flow (vph)	0	372	0	0	213	0	0	263	0	0	283	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		13.3			13.3			18.2			18.2	
Effective Green, g (s)		13.3			13.3			18.2			18.2	
Actuated g/C Ratio		0.33			0.33			0.45			0.45	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		567			545			806			773	
v/s Ratio Prot												
v/s Ratio Perm		c0.22			0.13			0.15			c0.16	
v/c Ratio		0.66			0.39			0.33			0.37	
Uniform Delay, d1		11.6			10.5			7.2			7.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.7			0.5			1.1			1.3	
Delay (s)		14.4			10.9			8.3			8.7	
Level of Service		B			B			A			A	
Approach Delay (s/veh)		14.4			10.9			8.3			8.7	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	40.5	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	8	7	7	7	19	7	47	7	22	52	7
Future Volume (Veh/h)	7	8	7	7	7	19	7	47	7	22	52	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	8	10	8	8	8	23	8	57	8	27	63	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	225	202	67	211	202	61	71			65		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	225	202	67	211	202	61	71			65		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	99	99	99	99	98	99			98		
cM capacity (veh/h)	695	678	997	719	678	1004	1529			1537		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	26	39	73	98
Volume Left	8	8	8	27
Volume Right	8	23	8	8
cSH	759	851	1529	1537
Volume to Capacity	0.03	0.05	0.00*	0.02
Queue Length 95th (m)	0.8	1.1	0.1	0.4
Control Delay (s/veh)	9.9	9.4	0.8	2.1
Lane LOS	A	A	A	A
Approach Delay (s/veh)	9.9	9.4	0.8	2.1
Approach LOS	A	A		

Intersection Summary				
Average Delay	3.8			
Intersection Capacity Utilization	18.5%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

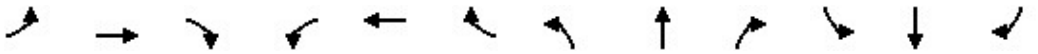


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	17	20	11	231	248	10
Future Volume (Veh/h)	17	20	11	231	248	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Hourly flow rate (vph)	22	26	14	304	326	13
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	665	333	339			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	665	333	339			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	96	99			
cM capacity (veh/h)	420	709	1220			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	48	318	339
Volume Left	22	14	0
Volume Right	26	0	13
cSH	539	1220	1700
Volume to Capacity	0.09	0.01	0.20
Queue Length 95th (m)	2.2	0.3	0.0
Control Delay (s/veh)	12.3	0.5	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	12.3	0.5	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	31.1%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	7	27	7	7	19	39	7	7	7	48	7	7
Future Volume (vph)	7	27	7	7	19	39	7	7	7	48	7	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	8	30	8	8	21	43	8	8	8	53	8	8

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	46	72	24	69
Volume Left (vph)	8	8	8	53
Volume Right (vph)	8	43	8	8
Hadj (s)	-0.04	-0.30	-0.10	0.12
Departure Headway (s)	4.1	3.9	4.1	4.3
Degree Utilization, x	0.05	0.08	0.03	0.08
Capacity (veh/h)	843	907	837	814
Control Delay (s/veh)	7.4	7.2	7.2	7.7
Approach Delay (s/veh)	7.4	7.2	7.2	7.7
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.4			
Level of Service	A			
Intersection Capacity Utilization	18.4%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	62	39	7	7	10
Future Volume (Veh/h)	8	62	39	7	7	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	67	42	8	8	11
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	50				131	46
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	50				131	46
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	1557				858	1023

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	76	50	19
Volume Left	9	0	8
Volume Right	0	8	11
cSH	1557	1700	947
Volume to Capacity	0.00*	0.03	0.02
Queue Length 95th (m)	0.1	0.0	0.5
Control Delay (s/veh)	0.9	0.0	8.9
Lane LOS	A		A
Approach Delay (s/veh)	0.9	0.0	8.9
Approach LOS			A

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	20.0%	ICU Level of Service	A
Analysis Period (min)	15		

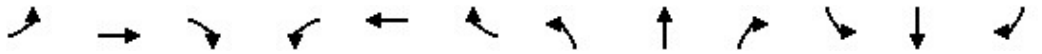
* Value less than 0.01.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	197	21	57	159	7	35	7	55	8	7	7
Future Volume (Veh/h)	7	197	21	57	159	7	35	7	55	8	7	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	8	235	25	68	189	8	42	8	65	10	8	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	197			260			605	597	248	662	605	193
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	197			260			605	597	248	662	605	193
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			95			89	98	92	97	98	99
cM capacity (veh/h)	1376			1304			382	393	791	324	388	849

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	268	265	115	26
Volume Left	8	68	42	10
Volume Right	25	8	65	8
cSH	1376	1304	541	427
Volume to Capacity	0.00*	0.05	0.21	0.06
Queue Length 95th (m)	0.1	1.3	6.1	1.5
Control Delay (s/veh)	0.3	2.4	13.4	14.0
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.3	2.4	13.4	14.0
Approach LOS			B	B

Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	41.4%	ICU Level of Service	A
Analysis Period (min)	15		

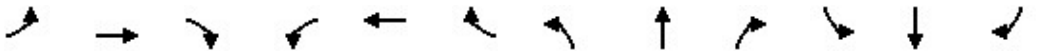
* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	225	48	63	268	71	30	237	64	74	253	46
Future Volume (vph)	59	225	48	63	268	71	30	237	64	74	253	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.97			0.98	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1831			1824			1826			1834	
Flt Permitted		0.86			0.90			0.94			0.87	
Satd. Flow (perm)		1595			1652			1727			1615	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	68	259	55	72	308	82	34	272	74	85	291	53
RTOR Reduction (vph)	0	14	0	0	19	0	0	18	0	0	11	0
Lane Group Flow (vph)	0	368	0	0	443	0	0	362	0	0	418	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		14.8			14.8			18.1			18.1	
Effective Green, g (s)		14.8			14.8			18.1			18.1	
Actuated g/C Ratio		0.35			0.35			0.43			0.43	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		563			583			746			697	
v/s Ratio Prot												
v/s Ratio Perm		0.23			c0.27			0.21			c0.26	
v/c Ratio		0.65			0.76			0.49			0.60	
Uniform Delay, d1		11.4			12.0			8.6			9.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.7			5.8			2.3			3.8	
Delay (s)		14.1			17.8			10.8			12.9	
Level of Service		B			B			B			B	
Approach Delay (s/veh)		14.1			17.8			10.8			12.9	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	14.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	41.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	71.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	8	7	7	12	35	7	69	7	23	47	7
Future Volume (Veh/h)	9	8	7	7	12	35	7	69	7	23	47	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	11	10	8	8	14	42	8	83	8	28	57	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	269	224	61	233	224	87	65			91		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	269	224	61	233	224	87	65			91		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	98	99	99	98	96	99			98		
cM capacity (veh/h)	632	659	1004	695	659	971	1537			1504		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	29	64	99	93
Volume Left	11	8	8	28
Volume Right	8	42	8	8
cSH	715	842	1537	1504
Volume to Capacity	0.04	0.08	0.00*	0.02
Queue Length 95th (m)	1.0	1.9	0.1	0.4
Control Delay (s/veh)	10.2	9.6	0.6	2.3
Lane LOS	B	A	A	A
Approach Delay (s/veh)	10.2	9.6	0.6	2.3
Approach LOS	B	A		

Intersection Summary				
Average Delay	4.2			
Intersection Capacity Utilization	19.9%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

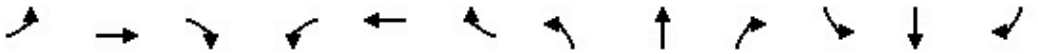


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	16	20	338	315	17
Future Volume (Veh/h)	13	16	20	338	315	17
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Hourly flow rate (vph)	17	21	26	445	414	22
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	922	425	436			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	922	425	436			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	97	98			
cM capacity (veh/h)	293	629	1124			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	38	471	436
Volume Left	17	26	0
Volume Right	21	0	22
cSH	416	1124	1700
Volume to Capacity	0.09	0.02	0.26
Queue Length 95th (m)	2.3	0.5	0.0
Control Delay (s/veh)	14.5	0.7	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	14.5	0.7	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	44.1%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	9	39	7	7	28	67	7	7	7	38	8	7
Future Volume (vph)	9	39	7	7	28	67	7	7	7	38	8	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	10	43	8	8	31	74	8	8	8	42	9	8

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	61	113	24	59
Volume Left (vph)	10	8	8	42
Volume Right (vph)	8	74	8	8
Hadj (s)	-0.01	-0.34	-0.10	0.10
Departure Headway (s)	4.2	3.8	4.2	4.4
Degree Utilization, x	0.07	0.12	0.03	0.07
Capacity (veh/h)	835	921	806	777
Control Delay (s/veh)	7.5	7.3	7.3	7.7
Approach Delay (s/veh)	7.5	7.3	7.3	7.7
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.5			
Level of Service	A			
Intersection Capacity Utilization	19.2%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

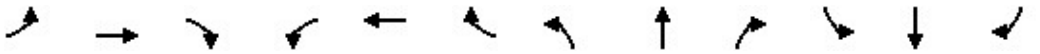


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	74	70	7	7	9
Future Volume (Veh/h)	10	74	70	7	7	9
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	80	76	8	8	10
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	84				182	80
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	84				182	80
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	1513				802	980

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	91	84	18
Volume Left	11	0	8
Volume Right	0	8	10
cSH	1513	1700	892
Volume to Capacity	0.00*	0.05	0.02
Queue Length 95th (m)	0.2	0.0	0.5
Control Delay (s/veh)	0.9	0.0	9.1
Lane LOS	A		A
Approach Delay (s/veh)	0.9	0.0	9.1
Approach LOS			A

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	21.1%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

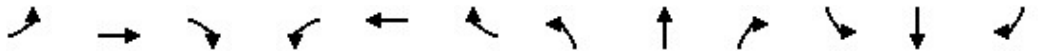


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	238	33	57	45	11	33	7	52	7	7	7
Future Volume (Veh/h)	7	238	33	57	45	11	33	7	52	7	7	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	8	283	39	68	54	13	39	8	62	8	8	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	67			322			527	522	303	581	535	61
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	67			322			527	522	303	581	535	61
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			95			91	98	92	98	98	99
cM capacity (veh/h)	1535			1238			431	432	737	366	425	1005

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	330	135	109	24
Volume Left	8	68	39	8
Volume Right	39	13	62	8
cSH	1535	1238	564	493
Volume to Capacity	0.00*	0.05	0.19	0.05
Queue Length 95th (m)	0.1	1.3	5.4	1.2
Control Delay (s/veh)	0.2	4.3	12.9	12.7
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.2	4.3	12.9	12.7
Approach LOS			B	B

Intersection Summary			
Average Delay	4.0		
Intersection Capacity Utilization	38.4%	ICU Level of Service	A
Analysis Period (min)	15		

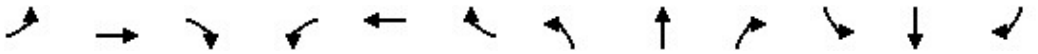
* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	262	59	38	134	58	18	209	37	37	197	52
Future Volume (vph)	43	262	59	38	134	58	18	209	37	37	197	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.97			0.98			0.98	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1831			1804			1841			1825	
Flt Permitted		0.93			0.90			0.97			0.93	
Satd. Flow (perm)		1718			1644			1786			1709	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	49	301	68	44	154	67	21	240	43	43	226	60
RTOR Reduction (vph)	0	17	0	0	30	0	0	12	0	0	17	0
Lane Group Flow (vph)	0	401	0	0	235	0	0	292	0	0	312	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		13.9			13.9			18.1			18.1	
Effective Green, g (s)		13.9			13.9			18.1			18.1	
Actuated g/C Ratio		0.34			0.34			0.44			0.44	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		582			557			788			754	
v/s Ratio Prot												
v/s Ratio Perm		c0.23			0.14			0.16			c0.18	
v/c Ratio		0.69			0.42			0.37			0.41	
Uniform Delay, d1		11.7			10.5			7.6			7.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		3.4			0.5			1.3			1.7	
Delay (s)		15.1			11.0			9.0			9.5	
Level of Service		B			B			A			A	
Approach Delay (s/veh)		15.1			11.0			9.0			9.5	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	11.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	41.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	9	7	7	7	20	7	51	7	23	55	7
Future Volume (Veh/h)	7	9	7	7	7	20	7	51	7	23	55	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	8	11	8	8	8	24	8	61	8	28	66	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	235	211	70	221	211	65	74			69		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	235	211	70	221	211	65	74			69		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	98	99	99	99	98	99			98		
cM capacity (veh/h)	683	670	993	708	670	999	1526			1532		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	27	40	77	102
Volume Left	8	8	8	28
Volume Right	8	24	8	8
cSH	746	846	1526	1532
Volume to Capacity	0.04	0.05	0.00*	0.02
Queue Length 95th (m)	0.9	1.1	0.1	0.4
Control Delay (s/veh)	10.0	9.5	0.8	2.1
Lane LOS	B	A	A	A
Approach Delay (s/veh)	10.0	9.5	0.8	2.1
Approach LOS	B	A		

Intersection Summary				
Average Delay	3.8			
Intersection Capacity Utilization	19.1%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

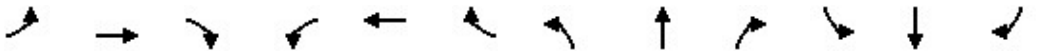


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	17	21	12	256	273	11
Future Volume (Veh/h)	17	21	12	256	273	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Hourly flow rate (vph)	22	28	16	337	359	14
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	735	366	373			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	735	366	373			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	96	99			
cM capacity (veh/h)	382	679	1185			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	50	353	373
Volume Left	22	16	0
Volume Right	28	0	14
cSH	506	1185	1700
Volume to Capacity	0.10	0.01	0.22
Queue Length 95th (m)	2.5	0.3	0.0
Control Delay (s/veh)	12.9	0.5	0.0
Lane LOS	B	A	
Approach Delay (s/veh)	12.9	0.5	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	33.2%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	7	30	7	7	21	42	7	7	7	50	7	7
Future Volume (vph)	7	30	7	7	21	42	7	7	7	50	7	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	8	33	8	8	23	47	8	8	8	56	8	8

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	49	78	24	72
Volume Left (vph)	8	8	8	56
Volume Right (vph)	8	47	8	8
Hadj (s)	-0.03	-0.31	-0.10	0.12
Departure Headway (s)	4.2	3.9	4.1	4.3
Degree Utilization, x	0.06	0.08	0.03	0.09
Capacity (veh/h)	839	905	831	808
Control Delay (s/veh)	7.4	7.2	7.3	7.7
Approach Delay (s/veh)	7.4	7.2	7.3	7.7
Approach LOS	A	A	A	A

Intersection Summary				
Delay		7.4		
Level of Service		A		
Intersection Capacity Utilization	19.0%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

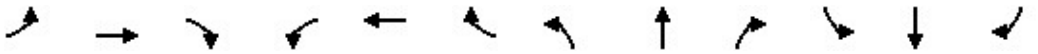


Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	8	66	42	7	7	10
Future Volume (Veh/h)	8	66	42	7	7	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	72	46	8	8	11
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	54				140	50
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	54				140	50
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	1551				848	1018

Direction, Lane #	EB 1	WB 1	SW 1
Volume Total	81	54	19
Volume Left	9	0	8
Volume Right	0	8	11
cSH	1551	1700	939
Volume to Capacity	0.00*	0.03	0.02
Queue Length 95th (m)	0.1	0.0	0.5
Control Delay (s/veh)	0.9	0.0	8.9
Lane LOS	A		A
Approach Delay (s/veh)	0.9	0.0	8.9
Approach LOS			A

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	20.2%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

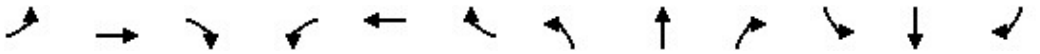


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	217	22	62	172	7	37	7	61	9	7	7
Future Volume (Veh/h)	7	217	22	62	172	7	37	7	61	9	7	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	8	258	26	74	205	8	44	8	73	11	8	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	213			284			656	648	271	721	657	209
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	213			284			656	648	271	721	657	209
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			94			87	98	90	96	98	99
cM capacity (veh/h)	1357			1278			351	365	768	290	360	831

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	292	287	125	27
Volume Left	8	74	44	11
Volume Right	26	8	73	8
cSH	1357	1278	516	387
Volume to Capacity	0.00*	0.06	0.24	0.07
Queue Length 95th (m)	0.1	1.4	7.2	1.7
Control Delay (s/veh)	0.3	2.5	14.2	15.0
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.3	2.5	14.2	15.0
Approach LOS			B	B

Intersection Summary				
Average Delay	4.1			
Intersection Capacity Utilization	43.7%	ICU Level of Service	A	
Analysis Period (min)	15			

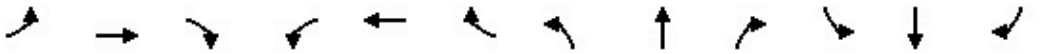
* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	242	53	69	286	79	33	261	71	82	279	51
Future Volume (vph)	65	242	53	69	286	79	33	261	71	82	279	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.97			0.98	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1829			1823			1826			1834	
Flt Permitted		0.85			0.89			0.93			0.86	
Satd. Flow (perm)		1563			1629			1713			1602	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	75	278	61	79	329	91	38	300	82	94	321	59
RTOR Reduction (vph)	0	15	0	0	19	0	0	18	0	0	11	0
Lane Group Flow (vph)	0	399	0	0	480	0	0	402	0	0	463	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		15.7			15.7			18.1			18.1	
Effective Green, g (s)		15.7			15.7			18.1			18.1	
Actuated g/C Ratio		0.37			0.37			0.42			0.42	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		573			597			724			677	
v/s Ratio Prot												
v/s Ratio Perm		0.26			c0.29			0.23			c0.29	
v/c Ratio		0.70			0.80			0.55			0.68	
Uniform Delay, d1		11.5			12.2			9.3			10.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		3.7			7.7			3.0			5.5	
Delay (s)		15.2			19.9			12.4			15.6	
Level of Service		B			B			B			B	
Approach Delay (s/veh)		15.2			19.9			12.4			15.6	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	42.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	9	7	7	13	37	7	74	7	24	50	7
Future Volume (Veh/h)	10	9	7	7	13	37	7	74	7	24	50	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	12	11	8	8	16	45	8	89	8	29	60	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	284	235	64	245	235	93	68			97		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	284	235	64	245	235	93	68			97		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	98	99	99	98	95	99			98		
cM capacity (veh/h)	613	649	1000	682	649	964	1533			1496		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	31	69	105	97
Volume Left	12	8	8	29
Volume Right	8	45	8	8
cSH	697	831	1533	1496
Volume to Capacity	0.04	0.08	0.00*	0.02
Queue Length 95th (m)	1.1	2.1	0.1	0.5
Control Delay (s/veh)	10.4	9.7	0.6	2.3
Lane LOS	B	A	A	A
Approach Delay (s/veh)	10.4	9.7	0.6	2.3
Approach LOS	B	A		

Intersection Summary				
Average Delay	4.2			
Intersection Capacity Utilization	20.8%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

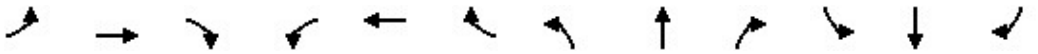


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	14	16	21	373	348	18
Future Volume (Veh/h)	14	16	21	373	348	18
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Hourly flow rate (vph)	18	21	28	491	458	24
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1017	470	482			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1017	470	482			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	93	96	97			
cM capacity (veh/h)	256	594	1081			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	39	519	482
Volume Left	18	28	0
Volume Right	21	0	24
cSH	369	1081	1700
Volume to Capacity	0.11	0.03	0.28
Queue Length 95th (m)	2.7	0.6	0.0
Control Delay (s/veh)	15.9	0.7	0.0
Lane LOS	C	A	
Approach Delay (s/veh)	15.9	0.7	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	46.8%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	10	43	7	7	31	71	7	7	7	39	9	7
Future Volume (vph)	10	43	7	7	31	71	7	7	7	39	9	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	48	8	8	34	79	8	8	8	43	10	8

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	67	121	24	61
Volume Left (vph)	11	8	8	43
Volume Right (vph)	8	79	8	8
Hadj (s)	0.00	-0.34	-0.10	0.10
Departure Headway (s)	4.2	3.8	4.3	4.4
Degree Utilization, x	0.08	0.13	0.03	0.07
Capacity (veh/h)	831	917	798	779
Control Delay (s/veh)	7.6	7.4	7.4	7.8
Approach Delay (s/veh)	7.6	7.4	7.4	7.8
Approach LOS	A	A	A	A

Intersection Summary				
Delay		7.5		
Level of Service		A		
Intersection Capacity Utilization	19.7%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

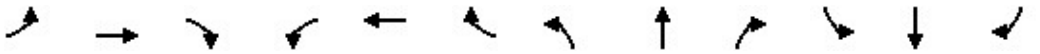


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	79	75	7	7	9
Future Volume (Veh/h)	10	79	75	7	7	9
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	86	82	8	8	10
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	90				194	86
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	90				194	86
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	1505				789	973

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	97	90	18
Volume Left	11	0	8
Volume Right	0	8	10
cSH	1505	1700	882
Volume to Capacity	0.00*	0.05	0.02
Queue Length 95th (m)	0.2	0.0	0.5
Control Delay (s/veh)	0.9	0.0	9.2
Lane LOS	A		A
Approach Delay (s/veh)	0.9	0.0	9.2
Approach LOS			A

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	21.4%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



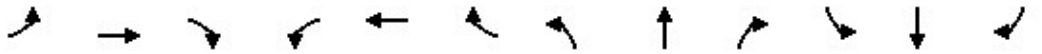
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	258	34	62	47	12	35	7	58	7	7	7
Future Volume (Veh/h)	7	258	34	62	47	12	35	7	58	7	7	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	8	307	40	74	56	14	42	8	69	8	8	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	70			347			566	561	327	627	574	63
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	70			347			566	561	327	627	574	63
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			94			90	98	90	98	98	99
cM capacity (veh/h)	1531			1212			404	408	714	335	401	1002

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	355	144	119	24
Volume Left	8	74	42	8
Volume Right	40	14	69	8
cSH	1531	1212	540	463
Volume to Capacity	0.00*	0.06	0.22	0.05
Queue Length 95th (m)	0.1	1.5	6.3	1.2
Control Delay (s/veh)	0.2	4.4	13.5	13.2
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.2	4.4	13.5	13.2
Approach LOS			B	B

Intersection Summary				
Average Delay	4.1			
Intersection Capacity Utilization	40.5%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

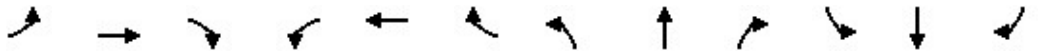
Appendix E:
Future Total Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	179	49	36	94	43	15	196	48	28	161	42
Future Volume (vph)	44	179	49	36	94	43	15	196	48	28	161	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.97			0.98			0.98	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1823			1802			1831			1826	
Flt Permitted		0.92			0.90			0.98			0.94	
Satd. Flow (perm)		1683			1643			1796			1732	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	51	206	56	41	108	49	17	225	55	32	185	48
RTOR Reduction (vph)	0	20	0	0	31	0	0	16	0	0	15	0
Lane Group Flow (vph)	0	293	0	0	167	0	0	281	0	0	250	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		11.8			11.8			18.8			18.8	
Effective Green, g (s)		11.8			11.8			18.8			18.8	
Actuated g/C Ratio		0.30			0.30			0.47			0.47	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		501			489			852			822	
v/s Ratio Prot												
v/s Ratio Perm		c0.17			0.10			c0.16			0.14	
v/c Ratio		0.58			0.34			0.33			0.30	
Uniform Delay, d1		11.8			10.9			6.5			6.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.7			0.4			1.0			1.0	
Delay (s)		13.6			11.3			7.5			7.3	
Level of Service		B			B			A			A	
Approach Delay (s/veh)		13.6			11.3			7.5			7.3	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	39.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	8	6	6	9	50	6	44	6	28	38	6
Future Volume (Veh/h)	6	8	6	6	9	50	6	44	6	28	38	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	7	10	7	7	11	60	7	53	7	34	46	7
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	254	192	50	200	192	57	53			60		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	254	192	50	200	192	57	53			60		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	99	99	99	98	94	100			98		
cM capacity (veh/h)	637	685	1019	730	685	1010	1553			1544		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	24	78	67	87
Volume Left	7	7	7	34
Volume Right	7	60	7	7
cSH	739	917	1553	1544
Volume to Capacity	0.03	0.09	0.00*	0.02
Queue Length 95th (m)	0.8	2.1	0.1	0.5
Control Delay (s/veh)	10.0	9.3	0.8	3.0
Lane LOS	B	A	A	A
Approach Delay (s/veh)	10.0	9.3	0.8	3.0
Approach LOS	B	A		

Intersection Summary				
Average Delay	5.0			
Intersection Capacity Utilization	20.8%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

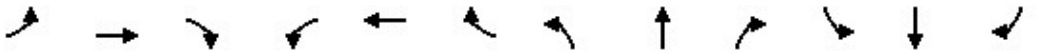


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	74	97	38	190	203	30
Future Volume (Veh/h)	74	97	38	190	203	30
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Hourly flow rate (vph)	97	128	50	250	267	39
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	637	287	306			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	637	287	306			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	77	83	96			
cM capacity (veh/h)	424	753	1255			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	225	300	306
Volume Left	97	50	0
Volume Right	128	0	39
cSH	564	1255	1700
Volume to Capacity	0.40	0.04	0.18
Queue Length 95th (m)	14.5	0.9	0.0
Control Delay (s/veh)	15.5	1.6	0.0
Lane LOS	C	A	
Approach Delay (s/veh)	15.5	1.6	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	6	40	6	6	24	38	6	6	6	35	6	6
Future Volume (vph)	6	40	6	6	24	38	6	6	6	35	6	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	7	44	7	7	27	42	7	7	7	39	7	7

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	58	76	21	53
Volume Left (vph)	7	7	7	39
Volume Right (vph)	7	42	7	7
Hadj (s)	-0.01	-0.28	-0.10	0.10
Departure Headway (s)	4.1	3.8	4.1	4.3
Degree Utilization, x	0.07	0.08	0.02	0.06
Capacity (veh/h)	850	913	831	808
Control Delay (s/veh)	7.4	7.2	7.2	7.6
Approach Delay (s/veh)	7.4	7.2	7.2	7.6
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.4			
Level of Service	A			
Intersection Capacity Utilization	16.8%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

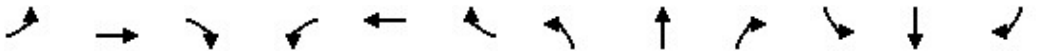


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	11	55	33	6	6	19
Future Volume (Veh/h)	11	55	33	6	6	19
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	60	36	7	7	21
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	43				124	40
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	43				124	40
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	98
cM capacity (veh/h)	1566				865	1032

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	72	43	28
Volume Left	12	0	7
Volume Right	0	7	21
cSH	1566	1700	984
Volume to Capacity	0.00*	0.03	0.03
Queue Length 95th (m)	0.2	0.0	0.7
Control Delay (s/veh)	1.3	0.0	8.8
Lane LOS	A		A
Approach Delay (s/veh)	1.3	0.0	8.8
Approach LOS			A

Intersection Summary			
Average Delay		2.4	
Intersection Capacity Utilization		20.2%	ICU Level of Service
Analysis Period (min)		15	

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	179	35	46	126	6	78	6	45	7	6	6
Future Volume (Veh/h)	6	179	35	46	126	6	78	6	45	7	6	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	7	213	42	55	150	7	93	7	54	8	7	7
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	157			255			522	515	234	569	533	154
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	157			255			522	515	234	569	533	154
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			96			79	98	93	98	98	99
cM capacity (veh/h)	1423			1310			440	442	805	385	432	892

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	262	212	154	22
Volume Left	7	55	93	8
Volume Right	42	7	54	7
cSH	1423	1310	523	491
Volume to Capacity	0.00*	0.04	0.29	0.04
Queue Length 95th (m)	0.1	1.0	9.3	1.1
Control Delay (s/veh)	0.2	2.3	14.7	12.7
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.2	2.3	14.7	12.7
Approach LOS			B	B

Intersection Summary				
Average Delay	4.8			
Intersection Capacity Utilization	43.6%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	32	61	1	3	2
Future Volume (Veh/h)	1	32	61	1	3	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	35	66	1	3	2
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	67				104	67
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	67				104	67
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1535				894	997

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	36	67	5
Volume Left	1	0	3
Volume Right	0	1	2
cSH	1535	1700	933
Volume to Capacity	0.00*	0.04	0.00*
Queue Length 95th (m)	0.0	0.0	0.1
Control Delay (s/veh)	0.2	0.0	8.9
Lane LOS	A		A
Approach Delay (s/veh)	0.2	0.0	8.9
Approach LOS			A

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

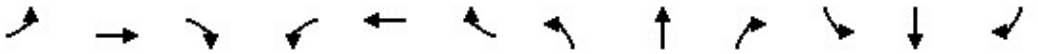


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	32	3	4	54	8	10
Future Volume (Veh/h)	32	3	4	54	8	10
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	35	3	4	59	9	11
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			38		104	37
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			38		104	37
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	99
cM capacity (veh/h)			1572		892	1036

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	38	63	20
Volume Left	0	4	9
Volume Right	3	0	11
cSH	1700	1572	966
Volume to Capacity	0.02	0.00*	0.02
Queue Length 95th (m)	0.0	0.1	0.5
Control Delay (s/veh)	0.0	0.5	8.8
Lane LOS		A	A
Approach Delay (s/veh)	0.0	0.5	8.8
Approach LOS			A

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	16.1%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	37	5	11	42	3	15	0	31	9	0	1
Future Volume (Veh/h)	0	37	5	11	42	3	15	0	31	9	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	40	5	12	46	3	16	0	34	10	0	1
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	49			45			115	116	43	148	117	48
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	49			45			115	116	43	148	117	48
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			98	100	97	99	100	100
cM capacity (veh/h)	1558			1563			856	769	1028	788	768	1022

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	45	61	50	11
Volume Left	0	12	16	10
Volume Right	5	3	34	1
cSH	1558	1563	966	805
Volume to Capacity	0.00	0.00*	0.05	0.01
Queue Length 95th (m)	0.0	0.2	1.2	0.3
Control Delay (s/veh)	0.0	1.5	8.9	9.5
Lane LOS		A	A	A
Approach Delay (s/veh)	0.0	1.5	8.9	9.5
Approach LOS			A	A

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	19.7%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	135	68	7	20	1
Future Volume (Veh/h)	0	135	68	7	20	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	147	74	8	22	1
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	82				225	78
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	82				225	78
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				97	100
cM capacity (veh/h)	1515				763	983

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	147	82	23
Volume Left	0	0	22
Volume Right	0	8	1
cSH	1515	1700	771
Volume to Capacity	0.00	0.05	0.03
Queue Length 95th (m)	0.0	0.0	0.7
Control Delay (s/veh)	0.0	0.0	9.8
Lane LOS			A
Approach Delay (s/veh)	0.0	0.0	9.8
Approach LOS			A

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	17.1%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

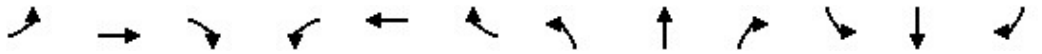


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	73	4	23	46	10	62
Future Volume (Veh/h)	73	4	23	46	10	62
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	79	4	25	50	11	67
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			83		181	81
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			83		181	81
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		99	93
cM capacity (veh/h)			1514		795	979

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	83	75	78
Volume Left	0	25	11
Volume Right	4	0	67
cSH	1700	1514	948
Volume to Capacity	0.05	0.02	0.08
Queue Length 95th (m)	0.0	0.4	2.0
Control Delay (s/veh)	0.0	2.6	9.1
Lane LOS		A	A
Approach Delay (s/veh)	0.0	2.6	9.1
Approach LOS			A

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	21.4%	ICU Level of Service	A
Analysis Period (min)	15		

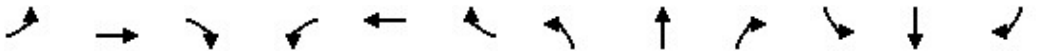
* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	169	43	71	194	59	29	221	66	61	248	49
Future Volume (vph)	56	169	43	71	194	59	29	221	66	61	248	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.97			0.98	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1824			1817			1822			1833	
Flt Permitted		0.87			0.87			0.94			0.89	
Satd. Flow (perm)		1608			1607			1727			1641	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	64	194	49	82	223	68	33	254	76	70	285	56
RTOR Reduction (vph)	0	17	0	0	20	0	0	19	0	0	12	0
Lane Group Flow (vph)	0	290	0	0	353	0	0	344	0	0	399	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		13.2			13.2			18.2			18.2	
Effective Green, g (s)		13.2			13.2			18.2			18.2	
Actuated g/C Ratio		0.33			0.33			0.45			0.45	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		525			525			778			739	
v/s Ratio Prot												
v/s Ratio Perm		0.18			c0.22			0.20			c0.24	
v/c Ratio		0.55			0.67			0.44			0.54	
Uniform Delay, d1		11.2			11.7			7.6			8.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.3			3.4			1.8			2.8	
Delay (s)		12.4			15.1			9.4			10.9	
Level of Service		B			B			A			B	
Approach Delay (s/veh)		12.4			15.1			9.4			10.9	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	40.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	63.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	10	6	6	12	48	6	53	6	52	41	6
Future Volume (Veh/h)	8	10	6	6	12	48	6	53	6	52	41	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	10	12	7	7	14	58	7	64	7	63	49	7
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	325	264	53	273	264	68	56			71		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	325	264	53	273	264	68	56			71		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	98	99	99	98	94	100			96		
cM capacity (veh/h)	561	612	1015	642	612	996	1549			1529		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	29	79	78	119
Volume Left	10	7	7	63
Volume Right	7	58	7	7
cSH	654	859	1549	1529
Volume to Capacity	0.04	0.09	0.00*	0.04
Queue Length 95th (m)	1.1	2.3	0.1	1.0
Control Delay (s/veh)	10.8	9.6	0.7	4.1
Lane LOS	B	A	A	A
Approach Delay (s/veh)	10.8	9.6	0.7	4.1
Approach LOS	B	A		

Intersection Summary				
Average Delay	5.3			
Intersection Capacity Utilization	22.8%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

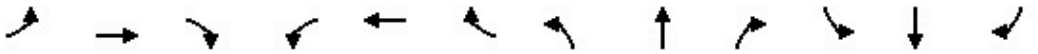


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	50	65	97	277	258	74
Future Volume (Veh/h)	50	65	97	277	258	74
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Hourly flow rate (vph)	66	86	128	364	339	97
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1008	388	436			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1008	388	436			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	72	87	89			
cM capacity (veh/h)	236	661	1124			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	152	492	436
Volume Left	66	128	0
Volume Right	86	0	97
cSH	371	1124	1700
Volume to Capacity	0.41	0.11	0.26
Queue Length 95th (m)	14.8	2.9	0.0
Control Delay (s/veh)	21.3	3.2	0.0
Lane LOS	C	A	
Approach Delay (s/veh)	21.3	3.2	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	54.8%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	8	45	6	6	41	52	6	6	6	34	7	6
Future Volume (vph)	8	45	6	6	41	52	6	6	6	34	7	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	9	50	7	7	46	58	7	7	7	38	8	7

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	66	111	21	53
Volume Left (vph)	9	7	7	38
Volume Right (vph)	7	58	7	7
Hadj (s)	0.00	-0.27	-0.10	0.10
Departure Headway (s)	4.2	3.9	4.2	4.4
Degree Utilization, x	0.08	0.12	0.02	0.06
Capacity (veh/h)	839	908	805	775
Control Delay (s/veh)	7.5	7.4	7.3	7.7
Approach Delay (s/veh)	7.5	7.4	7.3	7.7
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.5		
Level of Service	A		
Intersection Capacity Utilization	18.3%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

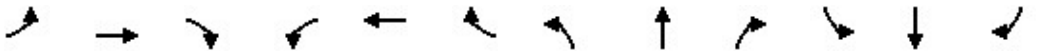


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	19	63	62	6	6	15
Future Volume (Veh/h)	19	63	62	6	6	15
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	21	68	67	7	7	16
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	74				181	71
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	74				181	71
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	98
cM capacity (veh/h)	1526				798	992

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	89	74	23
Volume Left	21	0	7
Volume Right	0	7	16
cSH	1526	1700	924
Volume to Capacity	0.01	0.04	0.02
Queue Length 95th (m)	0.3	0.0	0.6
Control Delay (s/veh)	1.8	0.0	9.0
Lane LOS	A		A
Approach Delay (s/veh)	1.8	0.0	9.0
Approach LOS			A

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	21.0%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	196	75	46	49	9	59	6	43	6	6	6
Future Volume (Veh/h)	6	196	75	46	49	9	59	6	43	6	6	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	7	233	89	55	58	11	70	7	51	7	7	7
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	69			322			476	471	278	520	510	64
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	69			322			476	471	278	520	510	64
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			96			85	99	93	98	98	99
cM capacity (veh/h)	1532			1238			472	467	761	415	444	1001

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	329	124	128	21
Volume Left	7	55	70	7
Volume Right	89	11	51	7
cSH	1532	1238	556	530
Volume to Capacity	0.00*	0.04	0.23	0.04
Queue Length 95th (m)	0.1	1.1	6.7	0.9
Control Delay (s/veh)	0.2	3.8	13.4	12.1
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.2	3.8	13.4	12.1
Approach LOS			B	B

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	54	77	4	2	2
Future Volume (Veh/h)	3	54	77	4	2	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	59	84	4	2	2
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	88				151	86
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	88				151	86
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1508				839	973

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	62	88	4
Volume Left	3	0	2
Volume Right	0	4	2
cSH	1508	1700	901
Volume to Capacity	0.00*	0.05	0.00*
Queue Length 95th (m)	0.0	0.0	0.1
Control Delay (s/veh)	0.4	0.0	9.0
Lane LOS	A		A
Approach Delay (s/veh)	0.4	0.0	9.0
Approach LOS			A

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	15.3%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	49	8	10	75	5	7
Future Volume (Veh/h)	49	8	10	75	5	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	9	11	82	5	8
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			62		162	58
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			62		162	58
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	99
cM capacity (veh/h)			1541		823	1009

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	62	93	13
Volume Left	0	11	5
Volume Right	9	0	8
cSH	1700	1541	928
Volume to Capacity	0.04	0.00*	0.01
Queue Length 95th (m)	0.0	0.2	0.3
Control Delay (s/veh)	0.0	0.9	8.9
Lane LOS		A	A
Approach Delay (s/veh)	0.0	0.9	8.9
Approach LOS			A

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	21.2%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	40	14	30	75	10	10	0	20	6	0	1
Future Volume (Veh/h)	1	40	14	30	75	10	10	0	20	6	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	1	43	15	33	82	11	11	0	22	7	0	1
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	93			58			207	212	51	228	214	88
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	93			58			207	212	51	228	214	88
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			99	100	98	99	100	100
cM capacity (veh/h)	1501			1546			737	671	1018	700	669	971

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	59	126	33	8
Volume Left	1	33	11	7
Volume Right	15	11	22	1
cSH	1501	1546	903	725
Volume to Capacity	0.00*	0.02	0.04	0.01
Queue Length 95th (m)	0.0	0.5	0.9	0.3
Control Delay (s/veh)	0.1	2.1	9.1	10.0
Lane LOS	A	A	A	B
Approach Delay (s/veh)	0.1	2.1	9.1	10.0
Approach LOS			A	B

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	22.9%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	96	168	22	13	1
Future Volume (Veh/h)	1	96	168	22	13	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	104	183	24	14	1
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	207				301	195
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	207				301	195
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				98	100
cM capacity (veh/h)	1364				690	846

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	105	207	15
Volume Left	1	0	14
Volume Right	0	24	1
cSH	1364	1700	699
Volume to Capacity	0.00*	0.12	0.02
Queue Length 95th (m)	0.0	0.0	0.5
Control Delay (s/veh)	0.1	0.0	10.3
Lane LOS	A		B
Approach Delay (s/veh)	0.1	0.0	10.3
Approach LOS			B

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	20.2%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

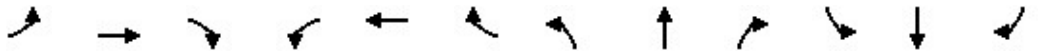


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	57	10	60	108	7	41
Future Volume (Veh/h)	57	10	60	108	7	41
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	62	11	65	117	8	45
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			73		315	68
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			73		315	68
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		99	95
cM capacity (veh/h)			1527		649	996

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	73	182	53
Volume Left	0	65	8
Volume Right	11	0	45
cSH	1700	1527	922
Volume to Capacity	0.04	0.04	0.06
Queue Length 95th (m)	0.0	1.0	1.4
Control Delay (s/veh)	0.0	2.9	9.1
Lane LOS		A	A
Approach Delay (s/veh)	0.0	2.9	9.1
Approach LOS			A

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	25.7%	ICU Level of Service	A
Analysis Period (min)	15		

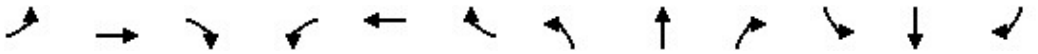
* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	230	49	46	115	48	15	250	70	30	190	43
Future Volume (vph)	35	230	49	46	115	48	15	250	70	30	190	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.97			0.97			0.98	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1834			1805			1826			1832	
Flt Permitted		0.94			0.88			0.98			0.93	
Satd. Flow (perm)		1733			1600			1796			1721	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	40	264	56	53	132	55	17	287	80	34	218	49
RTOR Reduction (vph)	0	17	0	0	27	0	0	19	0	0	14	0
Lane Group Flow (vph)	0	343	0	0	213	0	0	365	0	0	287	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.5			12.5			18.2			18.2	
Effective Green, g (s)		12.5			12.5			18.2			18.2	
Actuated g/C Ratio		0.31			0.31			0.46			0.46	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		545			503			823			788	
v/s Ratio Prot												
v/s Ratio Perm		c0.20			0.13			c0.20			0.17	
v/c Ratio		0.63			0.42			0.44			0.36	
Uniform Delay, d1		11.6			10.7			7.3			7.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.3			0.6			1.7			1.3	
Delay (s)		13.9			11.3			9.0			8.3	
Level of Service		B			B			A			A	
Approach Delay (s/veh)		13.9			11.3			9.0			8.3	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	39.7	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	39	11	6	39	115	11	86	6	80	88	6
Future Volume (Veh/h)	6	39	11	6	39	115	11	86	6	80	88	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	7	47	13	7	47	139	13	104	7	96	106	7
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	598	439	110	472	439	108	113			111		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	598	439	110	472	439	108	113			111		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	90	99	98	90	85	99			94		
cM capacity (veh/h)	309	475	944	433	475	946	1476			1479		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	67	193	124	209
Volume Left	7	7	13	96
Volume Right	13	139	7	7
cSH	495	736	1476	1479
Volume to Capacity	0.14	0.26	0.00*	0.06
Queue Length 95th (m)	3.5	8.0	0.2	1.6
Control Delay (s/veh)	13.4	11.6	0.8	3.8
Lane LOS	B	B	A	A
Approach Delay (s/veh)	13.4	11.6	0.8	3.8
Approach LOS	B	B		

Intersection Summary				
Average Delay	6.8			
Intersection Capacity Utilization	33.2%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

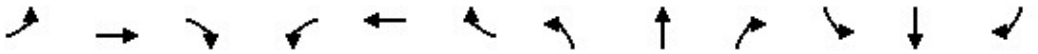


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	133	175	68	210	224	52
Future Volume (Veh/h)	133	175	68	210	224	52
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Hourly flow rate (vph)	175	230	89	276	295	68
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	783	329	363			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	783	329	363			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	48	68	93			
cM capacity (veh/h)	335	712	1196			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	405	365	363
Volume Left	175	89	0
Volume Right	230	0	68
cSH	480	1196	1700
Volume to Capacity	0.84	0.07	0.21
Queue Length 95th (m)	64.7	1.8	0.0
Control Delay (s/veh)	41.4	2.6	0.0
Lane LOS	E	A	
Approach Delay (s/veh)	41.4	2.6	0.0
Approach LOS	E		

Intersection Summary			
Average Delay	15.6		
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	6	49	6	6	41	83	6	6	6	89	6	6
Future Volume (vph)	6	49	6	6	41	83	6	6	6	89	6	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	7	54	7	7	46	92	7	7	7	99	7	7

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	68	145	21	113
Volume Left (vph)	7	7	7	99
Volume Right (vph)	7	92	7	7
Hadj (s)	-0.01	-0.34	-0.10	0.17
Departure Headway (s)	4.4	4.0	4.4	4.6
Degree Utilization, x	0.08	0.16	0.03	0.14
Capacity (veh/h)	792	876	767	746
Control Delay (s/veh)	7.8	7.7	7.5	8.3
Approach Delay (s/veh)	7.8	7.7	7.5	8.3
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.9			
Level of Service	A			
Intersection Capacity Utilization	27.6%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.

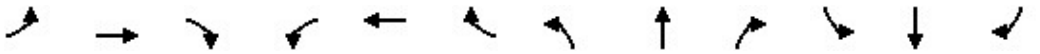


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	74	58	36	6	6	79
Future Volume (Veh/h)	74	58	36	6	6	79
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	80	63	39	7	7	86
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	46				266	43
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	46				266	43
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				99	92
cM capacity (veh/h)	1562				687	1028

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	143	46	93
Volume Left	80	0	7
Volume Right	0	7	86
cSH	1562	1700	991
Volume to Capacity	0.05	0.03	0.09
Queue Length 95th (m)	1.2	0.0	2.4
Control Delay (s/veh)	4.3	0.0	9.0
Lane LOS	A		A
Approach Delay (s/veh)	4.3	0.0	9.0
Approach LOS			A

Intersection Summary			
Average Delay	5.2		
Intersection Capacity Utilization	25.7%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	180	156	51	148	6	217	6	50	7	6	6
Future Volume (Veh/h)	6	180	156	51	148	6	217	6	50	7	6	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	7	214	186	61	176	7	258	7	60	8	7	7
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	183			400			633	626	307	686	716	180
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	183			400			633	626	307	686	716	180
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			95			30	98	92	97	98	99
cM capacity (veh/h)	1392			1159			366	378	733	313	336	863

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	407	244	325	22
Volume Left	7	61	258	8
Volume Right	186	7	60	7
cSH	1392	1159	404	403
Volume to Capacity	0.00*	0.05	0.80	0.05
Queue Length 95th (m)	0.1	1.3	54.4	1.3
Control Delay (s/veh)	0.2	2.4	41.8	14.4
Lane LOS	A	A	E	B
Approach Delay (s/veh)	0.2	2.4	41.8	14.4
Approach LOS			E	B

Intersection Summary			
Average Delay	14.6		
Intersection Capacity Utilization	62.4%	ICU Level of Service	B
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	125	143	2	7	10
Future Volume (Veh/h)	8	125	143	2	7	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	136	155	2	8	11
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	157				310	156
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	157				310	156
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	1423				678	890

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	145	157	19
Volume Left	9	0	8
Volume Right	0	2	11
cSH	1423	1700	786
Volume to Capacity	0.00*	0.09	0.02
Queue Length 95th (m)	0.1	0.0	0.6
Control Delay (s/veh)	0.5	0.0	9.7
Lane LOS	A		A
Approach Delay (s/veh)	0.5	0.0	9.7
Approach LOS			A

Intersection Summary			
Average Delay		0.8	
Intersection Capacity Utilization		23.1%	ICU Level of Service
Analysis Period (min)		15	

* Value less than 0.01.

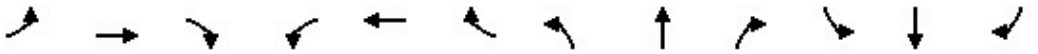


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	108	24	8	115	31	21
Future Volume (Veh/h)	108	24	8	115	31	21
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	117	26	9	125	34	23
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			143		273	130
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			143		273	130
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		95	97
cM capacity (veh/h)			1440		712	920

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	143	134	57
Volume Left	0	9	34
Volume Right	26	0	23
cSH	1700	1440	783
Volume to Capacity	0.08	0.00*	0.07
Queue Length 95th (m)	0.0	0.1	1.8
Control Delay (s/veh)	0.0	0.6	10.0
Lane LOS		A	A
Approach Delay (s/veh)	0.0	0.6	10.0
Approach LOS			A

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	22.6%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	93	33	23	71	7	47	0	62	19	0	4
Future Volume (Veh/h)	3	93	33	23	71	7	47	0	62	19	0	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	3	101	36	25	77	8	51	0	67	21	0	4
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	85			137			260	260	119	323	274	81
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	85			137			260	260	119	323	274	81
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			92	100	93	96	100	100
cM capacity (veh/h)	1512			1447			680	632	933	576	621	979

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	140	110	118	25
Volume Left	3	25	51	21
Volume Right	36	8	67	4
cSH	1512	1447	804	617
Volume to Capacity	0.00*	0.02	0.15	0.04
Queue Length 95th (m)	0.0	0.4	3.9	1.0
Control Delay (s/veh)	0.2	1.8	10.2	11.1
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.2	1.8	10.2	11.1
Approach LOS			B	B

Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	28.6%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	276	113	14	41	4
Future Volume (Veh/h)	3	276	113	14	41	4
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	300	123	15	45	4
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	138				437	131
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	138				437	131
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				92	100
cM capacity (veh/h)	1446				576	919

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	303	138	49
Volume Left	3	0	45
Volume Right	0	15	4
cSH	1446	1700	594
Volume to Capacity	0.00*	0.08	0.08
Queue Length 95th (m)	0.0	0.0	2.0
Control Delay (s/veh)	0.1	0.0	11.6
Lane LOS	A		B
Approach Delay (s/veh)	0.1	0.0	11.6
Approach LOS			B

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	26.9%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

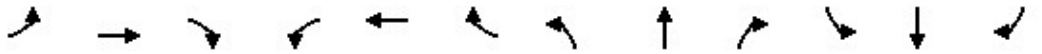


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	155	19	46	71	30	124
Future Volume (Veh/h)	155	19	46	71	30	124
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	168	21	50	77	33	135
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			189		356	179
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			189		356	179
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		95	84
cM capacity (veh/h)			1385		619	864

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	189	127	168
Volume Left	0	50	33
Volume Right	21	0	135
cSH	1700	1385	802
Volume to Capacity	0.11	0.04	0.21
Queue Length 95th (m)	0.0	0.9	6.0
Control Delay (s/veh)	0.0	3.2	10.7
Lane LOS		A	B
Approach Delay (s/veh)	0.0	3.2	10.7
Approach LOS			B

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	34.9%	ICU Level of Service	A
Analysis Period (min)	15		

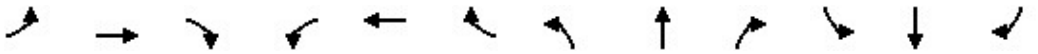
* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	209	44	96	251	65	27	266	84	67	307	41
Future Volume (vph)	54	209	44	96	251	65	27	266	84	67	307	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.97			0.99	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1831			1822			1820			1844	
Flt Permitted		0.88			0.84			0.95			0.89	
Satd. Flow (perm)		1617			1552			1734			1655	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	62	240	51	110	289	75	31	306	97	77	353	47
RTOR Reduction (vph)	0	15	0	0	16	0	0	22	0	0	9	0
Lane Group Flow (vph)	0	338	0	0	458	0	0	412	0	0	468	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		15.7			15.7			18.1			18.1	
Effective Green, g (s)		15.7			15.7			18.1			18.1	
Actuated g/C Ratio		0.37			0.37			0.42			0.42	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		593			569			733			699	
v/s Ratio Prot												
v/s Ratio Perm		0.21			c0.30			0.24			c0.28	
v/c Ratio		0.57			0.81			0.56			0.67	
Uniform Delay, d1		10.9			12.2			9.4			9.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.3			8.1			3.1			5.1	
Delay (s)		12.2			20.3			12.5			15.0	
Level of Service		B			C			B			B	
Approach Delay (s/veh)		12.2			20.3			12.5			15.0	
Approach LOS		B			C			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	42.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	56	14	6	57	127	13	123	6	139	107	6
Future Volume (Veh/h)	9	56	14	6	57	127	13	123	6	139	107	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	11	67	17	7	69	153	16	148	7	167	129	7
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	838	654	133	701	654	152	136			155		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	838	654	133	701	654	152	136			155		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	94	80	98	97	80	83	99			88		
cM capacity (veh/h)	181	337	917	266	337	895	1448			1425		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	95	229	171	303
Volume Left	11	7	16	167
Volume Right	17	153	7	7
cSH	342	570	1448	1425
Volume to Capacity	0.28	0.40	0.01	0.12
Queue Length 95th (m)	8.5	14.7	0.3	3.0
Control Delay (s/veh)	19.5	15.5	0.8	4.8
Lane LOS	C	C	A	A
Approach Delay (s/veh)	19.5	15.5	0.8	4.8
Approach LOS	C	C		

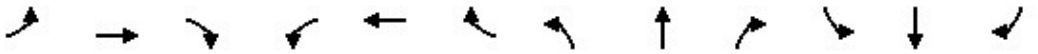
Intersection Summary				
Average Delay	8.8			
Intersection Capacity Utilization	43.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	89	117	175	306	285	133
Future Volume (Veh/h)	89	117	175	306	285	133
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Hourly flow rate (vph)	117	154	230	403	375	175
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1326	463	550			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1326	463	550			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	12	74	77			
cM capacity (veh/h)	133	599	1020			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	271	633	550
Volume Left	117	230	0
Volume Right	154	0	175
cSH	238	1020	1700
Volume to Capacity	1.14	0.23	0.32
Queue Length 95th (m)	93.7	6.6	0.0
Control Delay (s/veh)	144.0	5.3	0.0
Lane LOS	F	A	
Approach Delay (s/veh)	144.0	5.3	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	29.1		
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	9	73	6	6	61	128	6	6	6	106	7	6
Future Volume (vph)	9	73	6	6	61	128	6	6	6	106	7	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	10	81	7	7	68	142	7	7	7	118	8	7

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	98	217	21	133
Volume Left (vph)	10	7	7	118
Volume Right (vph)	7	142	7	7
Hadj (s)	0.01	-0.35	-0.10	0.18
Departure Headway (s)	4.5	4.1	4.7	4.8
Degree Utilization, x	0.12	0.24	0.03	0.18
Capacity (veh/h)	759	846	707	700
Control Delay (s/veh)	8.2	8.4	7.8	8.8
Approach Delay (s/veh)	8.2	8.4	7.8	8.8
Approach LOS	A	A	A	A

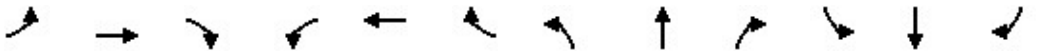
Intersection Summary				
Delay	8.4			
Level of Service	A			
Intersection Capacity Utilization	32.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	117	68	66	6	6	109
Future Volume (Veh/h)	117	68	66	6	6	109
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	127	74	72	7	7	118
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	79				404	76
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	79				404	76
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				99	88
cM capacity (veh/h)	1519				553	986

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	201	79	125
Volume Left	127	0	7
Volume Right	0	7	118
cSH	1519	1700	944
Volume to Capacity	0.08	0.05	0.13
Queue Length 95th (m)	2.1	0.0	3.5
Control Delay (s/veh)	5.0	0.0	9.4
Lane LOS	A		A
Approach Delay (s/veh)	5.0	0.0	9.4
Approach LOS			A

Intersection Summary			
Average Delay	5.4		
Intersection Capacity Utilization	30.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	219	277	51	43	10	243	6	48	6	6	6
Future Volume (Veh/h)	6	219	277	51	43	10	243	6	48	6	6	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	7	261	330	61	51	12	289	7	57	7	7	7
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	63			591			630	625	426	680	784	57
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	63			591			630	625	426	680	784	57
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			94			21	98	91	98	98	99
cM capacity (veh/h)	1540			985			365	375	628	311	303	1009

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	598	124	353	21
Volume Left	7	61	289	7
Volume Right	330	12	57	7
cSH	1540	985	392	400
Volume to Capacity	0.00*	0.06	0.90	0.05
Queue Length 95th (m)	0.1	1.5	70.8	1.3
Control Delay (s/veh)	0.1	4.7	56.7	14.5
Lane LOS	A	A	F	B
Approach Delay (s/veh)	0.1	4.7	56.7	14.5
Approach LOS			F	B

Intersection Summary			
Average Delay	19.1		
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	15	186	183	7	4	13
Future Volume (Veh/h)	15	186	183	7	4	13
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	202	199	8	4	14
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	207				437	203
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	207				437	203
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	98
cM capacity (veh/h)	1364				570	838

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	218	207	18
Volume Left	16	0	4
Volume Right	0	8	14
cSH	1364	1700	759
Volume to Capacity	0.01	0.12	0.02
Queue Length 95th (m)	0.3	0.0	0.6
Control Delay (s/veh)	0.7	0.0	9.9
Lane LOS	A		A
Approach Delay (s/veh)	0.7	0.0	9.9
Approach LOS			A

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	32.2%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

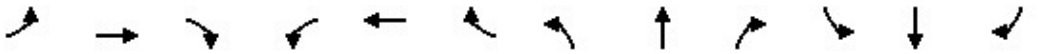


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	151	42	20	154	36	14
Future Volume (Veh/h)	151	42	20	154	36	14
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	164	46	22	167	39	15
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			210		398	187
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			210		398	187
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		93	98
cM capacity (veh/h)			1361		598	855

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	210	189	54
Volume Left	0	22	39
Volume Right	46	0	15
cSH	1700	1361	652
Volume to Capacity	0.12	0.02	0.08
Queue Length 95th (m)	0.0	0.4	2.1
Control Delay (s/veh)	0.0	1.0	11.0
Lane LOS		A	B
Approach Delay (s/veh)	0.0	1.0	11.0
Approach LOS			B

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	33.0%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	98	61	60	118	20	51	0	41	12	0	5
Future Volume (Veh/h)	6	98	61	60	118	20	51	0	41	12	0	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	7	107	66	65	128	22	55	0	45	13	0	5
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	150			173			428	434	140	468	456	139
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	150			173			428	434	140	468	456	139
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			95			89	100	95	97	100	99
cM capacity (veh/h)	1431			1404			513	489	908	462	475	909

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	180	215	100	18
Volume Left	7	65	55	13
Volume Right	66	22	45	5
cSH	1431	1404	638	535
Volume to Capacity	0.00*	0.05	0.16	0.03
Queue Length 95th (m)	0.1	1.1	4.2	0.8
Control Delay (s/veh)	0.3	2.6	11.7	12.0
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.3	2.6	11.7	12.0
Approach LOS			B	B

Intersection Summary				
Average Delay	3.9			
Intersection Capacity Utilization	35.7%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	191	285	43	26	5
Future Volume (Veh/h)	6	191	285	43	26	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	208	310	47	28	5
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	357				556	334
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	357				556	334
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				94	99
cM capacity (veh/h)	1202				490	708

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	215	357	33
Volume Left	7	0	28
Volume Right	0	47	5
cSH	1202	1700	514
Volume to Capacity	0.00*	0.21	0.06
Queue Length 95th (m)	0.1	0.0	1.6
Control Delay (s/veh)	0.3	0.0	12.5
Lane LOS	A		B
Approach Delay (s/veh)	0.3	0.0	12.5
Approach LOS			B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	27.6%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	115	36	120	169	30	81
Future Volume (Veh/h)	115	36	120	169	30	81
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	125	39	130	184	33	88
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			164		589	145
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			164		589	145
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			91		92	90
cM capacity (veh/h)			1414		428	903

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	164	314	121
Volume Left	0	130	33
Volume Right	39	0	88
cSH	1700	1414	693
Volume to Capacity	0.10	0.09	0.17
Queue Length 95th (m)	0.0	2.3	4.8
Control Delay (s/veh)	0.0	3.7	11.3
Lane LOS		A	B
Approach Delay (s/veh)	0.0	3.7	11.3
Approach LOS			B

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	40.4%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	133	175	68	210	224	52
Future Volume (vph)	133	175	68	210	224	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		0.95	0.95	1.00	
Frt	0.92		1.00	1.00	0.97	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1702		1700	1786	1836	
Flt Permitted	0.98		0.53	0.99	1.00	
Satd. Flow (perm)	1702		947	1766	1836	
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	175	230	89	276	295	68
RTOR Reduction (vph)	126	0	0	0	16	0
Lane Group Flow (vph)	279	0	80	285	347	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	10.9		18.7	18.7	18.7	
Effective Green, g (s)	10.9		18.7	18.7	18.7	
Actuated g/C Ratio	0.28		0.48	0.48	0.48	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	480		458	855	889	
v/s Ratio Prot	c0.16				c0.19	
v/s Ratio Perm			0.08	0.16		
v/c Ratio	0.58		0.17	0.33	0.39	
Uniform Delay, d1	11.9		5.6	6.1	6.3	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.8		0.8	1.0	1.3	
Delay (s)	13.7		6.4	7.2	7.6	
Level of Service	B		A	A	A	
Approach Delay (s/veh)	13.7			7.0	7.6	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	38.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		

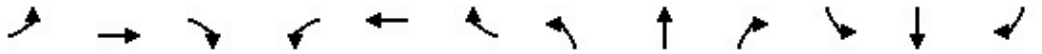
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	89	117	175	306	285	133
Future Volume (vph)	89	117	175	306	285	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		0.95	0.95	1.00	
Frt	0.92		1.00	1.00	0.96	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1702		1700	1784	1803	
Flt Permitted	0.98		0.40	0.97	1.00	
Satd. Flow (perm)	1702		723	1727	1803	
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	117	154	230	403	375	175
RTOR Reduction (vph)	91	0	0	0	22	0
Lane Group Flow (vph)	180	0	207	426	528	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	10.7		35.2	35.2	35.2	
Effective Green, g (s)	10.7		35.2	35.2	35.2	
Actuated g/C Ratio	0.19		0.64	0.64	0.64	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	331		463	1107	1156	
v/s Ratio Prot	c0.11				c0.29	
v/s Ratio Perm			0.29	0.25		
v/c Ratio	0.54		0.45	0.38	0.46	
Uniform Delay, d1	19.9		5.0	4.7	5.0	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.8		3.1	1.0	1.3	
Delay (s)	21.7		8.1	5.7	6.3	
Level of Service	C		A	A	A	
Approach Delay (s/veh)	21.7			6.5	6.3	
Approach LOS	C			A	A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	54.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

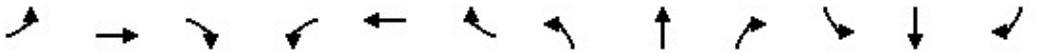
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	245	54	49	124	52	16	268	73	34	207	47
Future Volume (vph)	39	245	54	49	124	52	16	268	73	34	207	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.97			0.97			0.98	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1832			1805			1827			1831	
Flt Permitted		0.93			0.87			0.98			0.93	
Satd. Flow (perm)		1723			1588			1794			1705	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	45	282	62	56	143	60	18	308	84	39	238	54
RTOR Reduction (vph)	0	17	0	0	27	0	0	19	0	0	14	0
Lane Group Flow (vph)	0	372	0	0	232	0	0	391	0	0	317	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		13.3			13.3			18.2			18.2	
Effective Green, g (s)		13.3			13.3			18.2			18.2	
Actuated g/C Ratio		0.33			0.33			0.45			0.45	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		565			521			806			766	
v/s Ratio Prot												
v/s Ratio Perm		c0.22			0.15			c0.22			0.19	
v/c Ratio		0.66			0.45			0.49			0.41	
Uniform Delay, d1		11.7			10.7			7.9			7.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.8			0.6			2.1			1.6	
Delay (s)		14.4			11.3			9.9			9.2	
Level of Service		B			B			A			A	
Approach Delay (s/veh)		14.4			11.3			9.9			9.2	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	11.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	40.5	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	39	12	7	39	115	12	89	7	81	90	7
Future Volume (Veh/h)	7	39	12	7	39	115	12	89	7	81	90	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	8	47	14	8	47	139	14	107	8	98	108	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	610	451	112	485	451	111	116			115		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	610	451	112	485	451	111	116			115		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	90	99	98	90	85	99			93		
cM capacity (veh/h)	302	466	941	423	466	942	1473			1474		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	69	194	129	214
Volume Left	8	8	14	98
Volume Right	14	139	8	8
cSH	485	726	1473	1474
Volume to Capacity	0.14	0.27	0.00*	0.07
Queue Length 95th (m)	3.7	8.2	0.2	1.6
Control Delay (s/veh)	13.6	11.8	0.9	3.8
Lane LOS	B	B	A	A
Approach Delay (s/veh)	13.6	11.8	0.9	3.8
Approach LOS	B	B		

Intersection Summary				
Average Delay	6.8			
Intersection Capacity Utilization	33.5%	ICU Level of Service	A	
Analysis Period (min)	15			

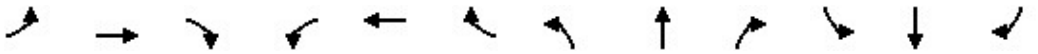
* Value less than 0.01.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	133	176	68	231	248	53
Future Volume (vph)	133	176	68	231	248	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		0.95	0.95	1.00	
Frt	0.92		1.00	1.00	0.98	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1702		1700	1787	1838	
Flt Permitted	0.98		0.50	0.99	1.00	
Satd. Flow (perm)	1702		889	1767	1838	
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	175	232	89	304	326	70
RTOR Reduction (vph)	127	0	0	0	15	0
Lane Group Flow (vph)	280	0	80	313	381	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	10.9		18.7	18.7	18.7	
Effective Green, g (s)	10.9		18.7	18.7	18.7	
Actuated g/C Ratio	0.28		0.48	0.48	0.48	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	480		430	856	890	
v/s Ratio Prot	c0.16				c0.21	
v/s Ratio Perm			0.09	0.18		
v/c Ratio	0.58		0.19	0.37	0.43	
Uniform Delay, d1	11.9		5.6	6.2	6.5	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.8		1.0	1.2	1.5	
Delay (s)	13.7		6.6	7.4	8.0	
Level of Service	B		A	A	A	
Approach Delay (s/veh)	13.7			7.3	8.0	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	9.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	38.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	7	51	7	7	43	86	7	7	7	91	7	7
Future Volume (vph)	7	51	7	7	43	86	7	7	7	91	7	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	8	57	8	8	48	96	8	8	8	101	8	8

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	73	152	24	117
Volume Left (vph)	8	8	8	101
Volume Right (vph)	8	96	8	8
Hadj (s)	-0.01	-0.33	-0.10	0.17
Departure Headway (s)	4.4	4.0	4.4	4.6
Degree Utilization, x	0.09	0.17	0.03	0.15
Capacity (veh/h)	786	869	759	741
Control Delay (s/veh)	7.8	7.8	7.6	8.4
Approach Delay (s/veh)	7.8	7.8	7.6	8.4
Approach LOS	A	A	A	A

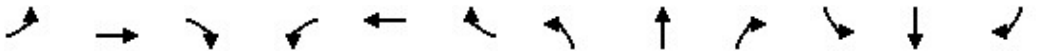
Intersection Summary				
Delay	8.0			
Level of Service	A			
Intersection Capacity Utilization	28.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	75	62	39	7	7	80
Future Volume (Veh/h)	75	62	39	7	7	80
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	82	67	42	8	8	87
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	50				277	46
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	50				277	46
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				99	91
cM capacity (veh/h)	1557				675	1023

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	149	50	95
Volume Left	82	0	8
Volume Right	0	8	87
cSH	1557	1700	981
Volume to Capacity	0.05	0.03	0.10
Queue Length 95th (m)	1.3	0.0	2.4
Control Delay (s/veh)	4.3	0.0	9.1
Lane LOS	A		A
Approach Delay (s/veh)	4.3	0.0	9.1
Approach LOS			A

Intersection Summary			
Average Delay	5.1		
Intersection Capacity Utilization	26.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	197	157	57	159	7	218	7	55	8	7	7
Future Volume (Veh/h)	7	197	157	57	159	7	218	7	55	8	7	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	8	235	187	68	189	8	260	8	65	10	8	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	197			422			686	678	329	743	767	193
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	197			422			686	678	329	743	767	193
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			94			22	98	91	96	97	99
cM capacity (veh/h)	1376			1137			334	350	713	281	311	849

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	430	265	333	26
Volume Left	8	68	260	10
Volume Right	187	8	65	8
cSH	1376	1137	373	368
Volume to Capacity	0.00*	0.06	0.89	0.07
Queue Length 95th (m)	0.1	1.4	68.0	1.7
Control Delay (s/veh)	0.2	2.6	57.3	15.5
Lane LOS	A	A	F	C
Approach Delay (s/veh)	0.2	2.6	57.3	15.5
Approach LOS			F	C

Intersection Summary			
Average Delay	19.2		
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	127	145	2	7	10
Future Volume (Veh/h)	8	127	145	2	7	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	138	158	2	8	11
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	160				315	159
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	160				315	159
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	1419				674	886

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	147	160	19
Volume Left	9	0	8
Volume Right	0	2	11
cSH	1419	1700	782
Volume to Capacity	0.00*	0.09	0.02
Queue Length 95th (m)	0.1	0.0	0.6
Control Delay (s/veh)	0.5	0.0	9.7
Lane LOS	A		A
Approach Delay (s/veh)	0.5	0.0	9.7
Approach LOS			A

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	23.2%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

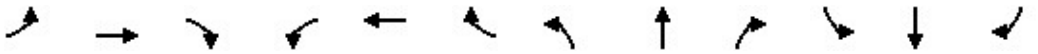


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	110	24	8	117	31	21
Future Volume (Veh/h)	110	24	8	117	31	21
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	120	26	9	127	34	23
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			146		278	133
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			146		278	133
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		95	97
cM capacity (veh/h)			1436		707	916

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	146	136	57
Volume Left	0	9	34
Volume Right	26	0	23
cSH	1700	1436	779
Volume to Capacity	0.09	0.00*	0.07
Queue Length 95th (m)	0.0	0.1	1.8
Control Delay (s/veh)	0.0	0.5	10.0
Lane LOS		A	A
Approach Delay (s/veh)	0.0	0.5	10.0
Approach LOS			A

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	22.7%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	95	33	23	73	7	47	0	62	19	0	4
Future Volume (Veh/h)	3	95	33	23	73	7	47	0	62	19	0	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	3	103	36	25	79	8	51	0	67	21	0	4
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	87			139			264	264	121	327	278	83
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	87			139			264	264	121	327	278	83
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			92	100	93	96	100	100
cM capacity (veh/h)	1509			1445			676	629	930	573	618	976

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	142	112	118	25
Volume Left	3	25	51	21
Volume Right	36	8	67	4
cSH	1509	1445	800	613
Volume to Capacity	0.00*	0.02	0.15	0.04
Queue Length 95th (m)	0.0	0.4	3.9	1.0
Control Delay (s/veh)	0.2	1.8	10.3	11.1
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.2	1.8	10.3	11.1
Approach LOS			B	B

Intersection Summary				
Average Delay	4.3			
Intersection Capacity Utilization	28.9%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	278	115	14	41	4
Future Volume (Veh/h)	3	278	115	14	41	4
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	302	125	15	45	4
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	140				441	133
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	140				441	133
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				92	100
cM capacity (veh/h)	1443				573	917

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	305	140	49
Volume Left	3	0	45
Volume Right	0	15	4
cSH	1443	1700	591
Volume to Capacity	0.00*	0.08	0.08
Queue Length 95th (m)	0.0	0.0	2.1
Control Delay (s/veh)	0.1	0.0	11.6
Lane LOS	A		B
Approach Delay (s/veh)	0.1	0.0	11.6
Approach LOS			B

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	27.0%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

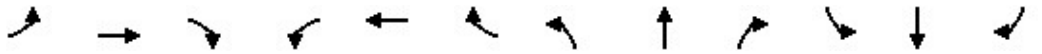


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	157	19	46	73	30	124
Future Volume (Veh/h)	157	19	46	73	30	124
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	171	21	50	79	33	135
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			192		361	182
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			192		361	182
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		95	84
cM capacity (veh/h)			1381		615	861

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	192	129	168
Volume Left	0	50	33
Volume Right	21	0	135
cSH	1700	1381	798
Volume to Capacity	0.11	0.04	0.21
Queue Length 95th (m)	0.0	0.9	6.0
Control Delay (s/veh)	0.0	3.2	10.7
Lane LOS		A	B
Approach Delay (s/veh)	0.0	3.2	10.7
Approach LOS			B

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	35.1%	ICU Level of Service	A
Analysis Period (min)	15		

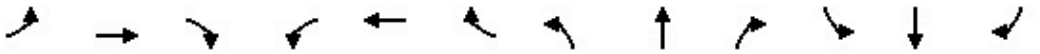
* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	225	48	101	268	71	30	288	90	74	331	46
Future Volume (vph)	59	225	48	101	268	71	30	288	90	74	331	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.97			0.99	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1831			1821			1821			1842	
Flt Permitted		0.86			0.83			0.95			0.88	
Satd. Flow (perm)		1593			1529			1728			1629	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	68	259	55	116	308	82	34	331	103	85	380	53
RTOR Reduction (vph)	0	14	0	0	16	0	0	22	0	0	9	0
Lane Group Flow (vph)	0	368	0	0	490	0	0	446	0	0	509	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.4			16.4			18.1			18.1	
Effective Green, g (s)		16.4			16.4			18.1			18.1	
Actuated g/C Ratio		0.38			0.38			0.42			0.42	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		600			576			719			677	
v/s Ratio Prot												
v/s Ratio Perm		0.23			c0.32			0.26			c0.31	
v/c Ratio		0.61			0.85			0.62			0.75	
Uniform Delay, d1		11.0			12.4			10.0			10.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.9			11.5			4.0			7.6	
Delay (s)		12.9			23.9			14.0			18.4	
Level of Service		B			C			B			B	
Approach Delay (s/veh)		12.9			23.9			14.0			18.4	
Approach LOS		B			C			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	43.5	Sum of lost time (s)	9.0
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	57	14	7	58	129	14	127	7	139	109	7
Future Volume (Veh/h)	9	57	14	7	58	129	14	127	7	139	109	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	11	69	17	8	70	155	17	153	8	167	131	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	850	664	135	712	664	157	139			161		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	850	664	135	712	664	157	139			161		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	94	79	98	97	79	83	99			88		
cM capacity (veh/h)	176	332	914	259	332	889	1445			1418		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	97	233	178	306
Volume Left	11	8	17	167
Volume Right	17	155	8	8
cSH	336	560	1445	1418
Volume to Capacity	0.29	0.42	0.01	0.12
Queue Length 95th (m)	8.9	15.5	0.3	3.0
Control Delay (s/veh)	20.0	15.9	0.8	4.8
Lane LOS	C	C	A	A
Approach Delay (s/veh)	20.0	15.9	0.8	4.8
Approach LOS	C	C		

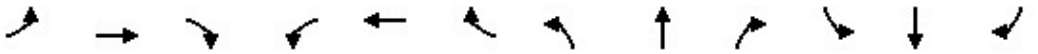
Intersection Summary				
Average Delay	8.9			
Intersection Capacity Utilization	44.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	90	117	175	338	315	133
Future Volume (vph)	90	117	175	338	315	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		0.95	0.95	1.00	
Frt	0.92		1.00	1.00	0.96	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1703		1700	1785	1808	
Flt Permitted	0.98		0.38	0.97	1.00	
Satd. Flow (perm)	1703		677	1729	1808	
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	118	154	230	445	414	175
RTOR Reduction (vph)	90	0	0	0	20	0
Lane Group Flow (vph)	182	0	207	468	569	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	10.7		35.2	35.2	35.2	
Effective Green, g (s)	10.7		35.2	35.2	35.2	
Actuated g/C Ratio	0.19		0.64	0.64	0.64	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	331		434	1108	1159	
v/s Ratio Prot	c0.11				c0.31	
v/s Ratio Perm			0.31	0.27		
v/c Ratio	0.55		0.48	0.42	0.49	
Uniform Delay, d1	19.9		5.1	4.8	5.2	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.9		3.7	1.2	1.5	
Delay (s)	21.8		8.8	6.0	6.6	
Level of Service	C		A	A	A	
Approach Delay (s/veh)	21.8			6.9	6.6	
Approach LOS	C			A	A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	54.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	9	77	7	7	64	131	7	7	7	107	8	7
Future Volume (vph)	9	77	7	7	64	131	7	7	7	107	8	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	10	86	8	8	71	146	8	8	8	119	9	8

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	104	225	24	136
Volume Left (vph)	10	8	8	119
Volume Right (vph)	8	146	8	8
Hadj (s)	0.01	-0.35	-0.10	0.17
Departure Headway (s)	4.6	4.1	4.7	4.8
Degree Utilization, x	0.13	0.25	0.03	0.18
Capacity (veh/h)	754	840	699	694
Control Delay (s/veh)	8.2	8.5	7.9	8.9
Approach Delay (s/veh)	8.2	8.5	7.9	8.9
Approach LOS	A	A	A	A

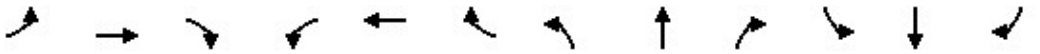
Intersection Summary				
Delay	8.5			
Level of Service	A			
Intersection Capacity Utilization	33.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	117	74	70	7	7	109
Future Volume (Veh/h)	117	74	70	7	7	109
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	127	80	76	8	8	118
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	84				414	80
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	84				414	80
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				99	88
cM capacity (veh/h)	1513				545	980

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	207	84	126
Volume Left	127	0	8
Volume Right	0	8	118
cSH	1513	1700	933
Volume to Capacity	0.08	0.05	0.14
Queue Length 95th (m)	2.1	0.0	3.5
Control Delay (s/veh)	4.9	0.0	9.5
Lane LOS	A		A
Approach Delay (s/veh)	4.9	0.0	9.5
Approach LOS			A

Intersection Summary			
Average Delay	5.3		
Intersection Capacity Utilization	30.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	238	278	57	45	11	244	7	52	7	7	7
Future Volume (Veh/h)	7	238	278	57	45	11	244	7	52	7	7	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	8	283	331	68	54	13	290	8	62	8	8	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	67			614			673	668	449	727	827	61
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	67			614			673	668	449	727	827	61
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			93			14	98	90	97	97	99
cM capacity (veh/h)	1535			965			338	351	610	282	284	1005

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	622	135	360	24
Volume Left	8	68	290	8
Volume Right	331	13	62	8
cSH	1535	965	366	372
Volume to Capacity	0.00*	0.07	0.98	0.06
Queue Length 95th (m)	0.1	1.7	85.5	1.6
Control Delay (s/veh)	0.2	4.9	77.2	15.3
Lane LOS	A	A	F	C
Approach Delay (s/veh)	0.2	4.9	77.2	15.3
Approach LOS			F	C

Intersection Summary			
Average Delay	25.3		
Intersection Capacity Utilization	69.8%	ICU Level of Service	C
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	15	188	187	7	4	13
Future Volume (Veh/h)	15	188	187	7	4	13
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	204	203	8	4	14
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	211				443	207
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	211				443	207
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	98
cM capacity (veh/h)	1360				565	833

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	220	211	18
Volume Left	16	0	4
Volume Right	0	8	14
cSH	1360	1700	754
Volume to Capacity	0.01	0.12	0.02
Queue Length 95th (m)	0.3	0.0	0.6
Control Delay (s/veh)	0.7	0.0	9.9
Lane LOS	A		A
Approach Delay (s/veh)	0.7	0.0	9.9
Approach LOS			A

Intersection Summary			
Average Delay		0.7	
Intersection Capacity Utilization		32.3%	ICU Level of Service
Analysis Period (min)		15	

Intersection Capacity Utilization		32.3%	ICU Level of Service	A
Analysis Period (min)		15		

* Value less than 0.01.

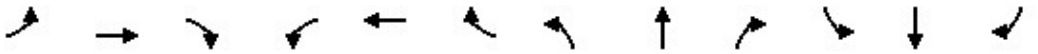


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	153	42	20	158	36	14
Future Volume (Veh/h)	153	42	20	158	36	14
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	166	46	22	172	39	15
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			212		405	189
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			212		405	189
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		93	98
cM capacity (veh/h)			1358		592	853

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	212	194	54
Volume Left	0	22	39
Volume Right	46	0	15
cSH	1700	1358	647
Volume to Capacity	0.12	0.02	0.08
Queue Length 95th (m)	0.0	0.4	2.1
Control Delay (s/veh)	0.0	1.0	11.1
Lane LOS		A	B
Approach Delay (s/veh)	0.0	1.0	11.1
Approach LOS			B

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	33.4%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	100	61	60	122	20	51	0	41	12	0	5
Future Volume (Veh/h)	6	100	61	60	122	20	51	0	41	12	0	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	7	109	66	65	133	22	55	0	45	13	0	5
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	155			175			435	441	142	475	463	144
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	155			175			435	441	142	475	463	144
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			95			89	100	95	97	100	99
cM capacity (veh/h)	1425			1401			508	484	906	457	471	903

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	182	220	100	18
Volume Left	7	65	55	13
Volume Right	66	22	45	5
cSH	1425	1401	633	529
Volume to Capacity	0.00*	0.05	0.16	0.03
Queue Length 95th (m)	0.1	1.1	4.2	0.8
Control Delay (s/veh)	0.3	2.5	11.8	12.0
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.3	2.5	11.8	12.0
Approach LOS			B	B

Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	36.0%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	193	288	43	26	5
Future Volume (Veh/h)	6	193	288	43	26	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	210	313	47	28	5
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	360				561	337
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	360				561	337
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				94	99
cM capacity (veh/h)	1199				486	706

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	217	360	33
Volume Left	7	0	28
Volume Right	0	47	5
cSH	1199	1700	510
Volume to Capacity	0.00*	0.21	0.06
Queue Length 95th (m)	0.1	0.0	1.6
Control Delay (s/veh)	0.3	0.0	12.5
Lane LOS	A		B
Approach Delay (s/veh)	0.3	0.0	12.5
Approach LOS			B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	27.8%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

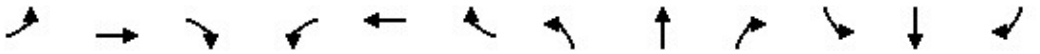


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	117	36	120	172	30	81
Future Volume (Veh/h)	117	36	120	172	30	81
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	127	39	130	187	33	88
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			166		594	147
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			166		594	147
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			91		92	90
cM capacity (veh/h)			1412		425	901

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	166	317	121
Volume Left	0	130	33
Volume Right	39	0	88
cSH	1700	1412	690
Volume to Capacity	0.10	0.09	0.18
Queue Length 95th (m)	0.0	2.3	4.8
Control Delay (s/veh)	0.0	3.7	11.3
Lane LOS		A	B
Approach Delay (s/veh)	0.0	3.7	11.3
Approach LOS			B

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	40.7%	ICU Level of Service	A
Analysis Period (min)	15		

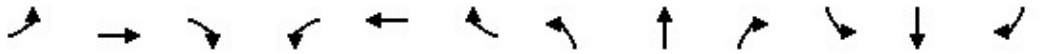
* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	197	157	57	159	7	218	7	55	8	7	7
Future Volume (vph)	7	197	157	57	159	7	218	7	55	8	7	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.94			1.00			0.97			0.96	
Flt Protected		1.00			0.99			0.96			0.98	
Satd. Flow (prot)		1771			1852			1765			1771	
Flt Permitted		0.99			0.84			0.76			0.86	
Satd. Flow (perm)		1759			1579			1386			1546	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	8	235	187	68	189	8	260	8	65	10	8	8
RTOR Reduction (vph)	0	66	0	0	3	0	0	20	0	0	5	0
Lane Group Flow (vph)	0	364	0	0	262	0	0	313	0	0	21	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.0			12.0			12.4			12.4	
Effective Green, g (s)		12.0			12.0			12.4			12.4	
Actuated g/C Ratio		0.36			0.36			0.37			0.37	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		631			567			514			573	
v/s Ratio Prot												
v/s Ratio Perm		c0.21			0.17			c0.23			0.01	
v/c Ratio		0.58			0.46			0.61			0.04	
Uniform Delay, d1		8.6			8.2			8.5			6.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.3			0.6			2.0			0.0	
Delay (s)		9.9			8.8			10.6			6.7	
Level of Service		A			A			B			A	
Approach Delay (s/veh)		9.9			8.8			10.6			6.7	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	33.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		

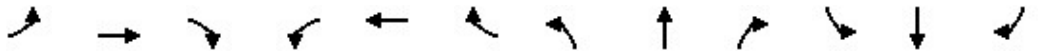
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	7	238	278	57	45	11	244	7	52	7	7	7
Future Volume (vph)	7	238	278	57	45	11	244	7	52	7	7	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.93			0.99			0.98			0.96	
Flt Protected		1.00			0.98			0.96			0.98	
Satd. Flow (prot)		1747			1813			1768			1769	
Flt Permitted		1.00			0.68			0.75			0.88	
Satd. Flow (perm)		1743			1260			1382			1589	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	8	283	331	68	54	13	290	8	62	8	8	8
RTOR Reduction (vph)	0	77	0	0	7	0	0	14	0	0	5	0
Lane Group Flow (vph)	0	545	0	0	128	0	0	346	0	0	19	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.1			18.1			15.6			15.6	
Effective Green, g (s)		18.1			18.1			15.6			15.6	
Actuated g/C Ratio		0.42			0.42			0.37			0.37	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		738			534			504			580	
v/s Ratio Prot												
v/s Ratio Perm		c0.31			0.10			c0.25			0.01	
v/c Ratio		0.74			0.24			0.69			0.03	
Uniform Delay, d1		10.3			7.9			11.5			8.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		3.9			0.2			3.9			0.0	
Delay (s)		14.2			8.1			15.3			8.7	
Level of Service		B			A			B			A	
Approach Delay (s/veh)		14.2			8.1			15.3			8.7	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	42.7	Sum of lost time (s)	9.0
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		

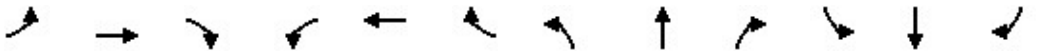
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	262	59	53	134	58	18	287	76	37	225	52
Future Volume (vph)	43	262	59	53	134	58	18	287	76	37	225	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.97			0.97			0.98	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1831			1804			1829			1830	
Flt Permitted		0.93			0.86			0.98			0.92	
Satd. Flow (perm)		1716			1564			1787			1691	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	49	301	68	61	154	67	21	330	87	43	259	60
RTOR Reduction (vph)	0	17	0	0	28	0	0	18	0	0	15	0
Lane Group Flow (vph)	0	401	0	0	254	0	0	420	0	0	347	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		13.9			13.9			18.1			18.1	
Effective Green, g (s)		13.9			13.9			18.1			18.1	
Actuated g/C Ratio		0.34			0.34			0.44			0.44	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		581			530			788			746	
v/s Ratio Prot												
v/s Ratio Perm		c0.23			0.16			c0.23			0.21	
v/c Ratio		0.69			0.48			0.53			0.47	
Uniform Delay, d1		11.7			10.7			8.4			8.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		3.4			0.7			2.6			2.1	
Delay (s)		15.1			11.4			10.9			10.1	
Level of Service		B			B			B			B	
Approach Delay (s/veh)		15.1			11.4			10.9			10.1	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	41.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	40	12	7	40	116	12	93	7	82	93	7
Future Volume (Veh/h)	7	40	12	7	40	116	12	93	7	82	93	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	8	48	14	8	48	140	14	112	8	99	112	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	622	462	116	496	462	116	120			120		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	622	462	116	496	462	116	120			120		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	90	99	98	90	85	99			93		
cM capacity (veh/h)	294	459	936	414	459	936	1468			1468		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	70	196	134	219
Volume Left	8	8	14	99
Volume Right	14	140	8	8
cSH	477	717	1468	1468
Volume to Capacity	0.15	0.27	0.00*	0.07
Queue Length 95th (m)	3.9	8.4	0.2	1.6
Control Delay (s/veh)	13.8	11.9	0.8	3.8
Lane LOS	B	B	A	A
Approach Delay (s/veh)	13.8	11.9	0.8	3.8
Approach LOS	B	B		

Intersection Summary				
Average Delay	6.8			
Intersection Capacity Utilization	33.8%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	134	176	69	256	273	54
Future Volume (vph)	134	176	69	256	273	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		0.95	0.95	1.00	
Frt	0.92		1.00	1.00	0.98	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1702		1700	1787	1841	
Flt Permitted	0.98		0.46	0.99	1.00	
Satd. Flow (perm)	1702		831	1768	1841	
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	176	232	91	337	359	71
RTOR Reduction (vph)	126	0	0	0	13	0
Lane Group Flow (vph)	282	0	82	346	417	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	10.9		18.7	18.7	18.7	
Effective Green, g (s)	10.9		18.7	18.7	18.7	
Actuated g/C Ratio	0.28		0.48	0.48	0.48	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	480		402	856	891	
v/s Ratio Prot	c0.17				c0.23	
v/s Ratio Perm			0.10	0.20		
v/c Ratio	0.59		0.20	0.40	0.47	
Uniform Delay, d1	11.9		5.7	6.4	6.6	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.8		1.1	1.4	1.8	
Delay (s)	13.7		6.8	7.8	8.4	
Level of Service	B		A	A	A	
Approach Delay (s/veh)	13.7			7.6	8.4	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	38.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	7	54	7	7	45	89	7	7	7	93	7	7
Future Volume (vph)	7	54	7	7	45	89	7	7	7	93	7	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	8	60	8	8	50	99	8	8	8	103	8	8

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	76	157	24	119
Volume Left (vph)	8	8	8	103
Volume Right (vph)	8	99	8	8
Hadj (s)	-0.01	-0.33	-0.10	0.17
Departure Headway (s)	4.4	4.0	4.5	4.6
Degree Utilization, x	0.09	0.17	0.03	0.15
Capacity (veh/h)	783	867	754	737
Control Delay (s/veh)	7.8	7.8	7.6	8.4
Approach Delay (s/veh)	7.8	7.8	7.6	8.4
Approach LOS	A	A	A	A

Intersection Summary				
Delay	8.0			
Level of Service	A			
Intersection Capacity Utilization	28.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	76	66	42	7	7	81
Future Volume (Veh/h)	76	66	42	7	7	81
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	83	72	46	8	8	88
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	54				288	50
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	54				288	50
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				99	91
cM capacity (veh/h)	1551				665	1018

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	155	54	96
Volume Left	83	0	8
Volume Right	0	8	88
cSH	1551	1700	975
Volume to Capacity	0.05	0.03	0.10
Queue Length 95th (m)	1.3	0.0	2.5
Control Delay (s/veh)	4.2	0.0	9.1
Lane LOS	A		A
Approach Delay (s/veh)	4.2	0.0	9.1
Approach LOS			A

Intersection Summary			
Average Delay		5.0	
Intersection Capacity Utilization		26.4%	ICU Level of Service
Analysis Period (min)		15	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	217	159	62	172	7	219	7	61	9	7	7
Future Volume (vph)	7	217	159	62	172	7	219	7	61	9	7	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.94			1.00			0.97			0.96	
Flt Protected		1.00			0.99			0.96			0.98	
Satd. Flow (prot)		1776			1852			1762			1772	
Flt Permitted		0.99			0.78			0.76			0.87	
Satd. Flow (perm)		1764			1459			1389			1577	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	8	258	189	74	205	8	261	8	73	11	8	8
RTOR Reduction (vph)	0	64	0	0	3	0	0	20	0	0	4	0
Lane Group Flow (vph)	0	391	0	0	284	0	0	322	0	0	23	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		13.3			13.3			18.2			18.2	
Effective Green, g (s)		13.3			13.3			18.2			18.2	
Actuated g/C Ratio		0.33			0.33			0.45			0.45	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		579			479			624			708	
v/s Ratio Prot												
v/s Ratio Perm		c0.22			0.19			c0.23			0.01	
v/c Ratio		0.68			0.59			0.52			0.03	
Uniform Delay, d1		11.7			11.3			8.0			6.2	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		3.1			2.0			3.0			0.1	
Delay (s)		14.9			13.3			11.0			6.3	
Level of Service		B			B			B			A	
Approach Delay (s/veh)		14.9			13.3			11.0			6.3	
Approach LOS		B			B			B			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	40.5	Sum of lost time (s)	9.0
Intersection Capacity Utilization	68.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	130	148	2	7	10
Future Volume (Veh/h)	8	130	148	2	7	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	141	161	2	8	11
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	163				321	162
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	163				321	162
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	1416				668	883

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	150	163	19
Volume Left	9	0	8
Volume Right	0	2	11
cSH	1416	1700	778
Volume to Capacity	0.00*	0.10	0.02
Queue Length 95th (m)	0.1	0.0	0.6
Control Delay (s/veh)	0.5	0.0	9.7
Lane LOS	A		A
Approach Delay (s/veh)	0.5	0.0	9.7
Approach LOS			A

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	23.4%	ICU Level of Service	A
Analysis Period (min)	15		

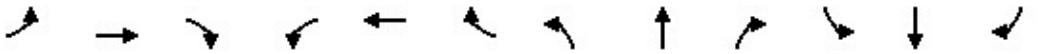
* Value less than 0.01.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	113	24	8	119	31	21
Future Volume (Veh/h)	113	24	8	119	31	21
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	123	26	9	129	34	23
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			149		283	136
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			149		283	136
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		95	97
cM capacity (veh/h)			1432		703	913

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	149	138	57
Volume Left	0	9	34
Volume Right	26	0	23
cSH	1700	1432	775
Volume to Capacity	0.09	0.00*	0.07
Queue Length 95th (m)	0.0	0.1	1.8
Control Delay (s/veh)	0.0	0.5	10.0
Lane LOS		A	B
Approach Delay (s/veh)	0.0	0.5	10.0
Approach LOS			B

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	22.8%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	97	33	23	75	7	47	0	62	19	0	4
Future Volume (Veh/h)	3	97	33	23	75	7	47	0	62	19	0	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	3	105	36	25	82	8	51	0	67	21	0	4
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	90			141			269	269	123	332	283	86
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	90			141			269	269	123	332	283	86
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			92	100	93	96	100	100
cM capacity (veh/h)	1505			1442			671	625	928	568	614	973

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	144	115	118	25
Volume Left	3	25	51	21
Volume Right	36	8	67	4
cSH	1505	1442	796	609
Volume to Capacity	0.00*	0.02	0.15	0.04
Queue Length 95th (m)	0.0	0.4	3.9	1.0
Control Delay (s/veh)	0.2	1.7	10.3	11.2
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.2	1.7	10.3	11.2
Approach LOS			B	B

Intersection Summary				
Average Delay	4.3			
Intersection Capacity Utilization	29.1%	ICU Level of Service	A	
Analysis Period (min)	15			

* Value less than 0.01.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	280	117	14	41	4
Future Volume (Veh/h)	3	280	117	14	41	4
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	304	127	15	45	4
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	142				445	135
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	142				445	135
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				92	100
cM capacity (veh/h)	1441				570	914

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	307	142	49
Volume Left	3	0	45
Volume Right	0	15	4
cSH	1441	1700	588
Volume to Capacity	0.00*	0.08	0.08
Queue Length 95th (m)	0.0	0.0	2.1
Control Delay (s/veh)	0.1	0.0	11.7
Lane LOS	A		B
Approach Delay (s/veh)	0.1	0.0	11.7
Approach LOS			B

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	27.1%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

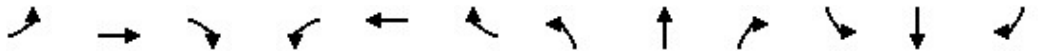


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	159	19	46	75	30	124
Future Volume (Veh/h)	159	19	46	75	30	124
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	173	21	50	82	33	135
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			194		366	184
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			194		366	184
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		95	84
cM capacity (veh/h)			1379		611	859

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	194	132	168
Volume Left	0	50	33
Volume Right	21	0	135
cSH	1700	1379	796
Volume to Capacity	0.11	0.04	0.21
Queue Length 95th (m)	0.0	0.9	6.0
Control Delay (s/veh)	0.0	3.1	10.7
Lane LOS		A	B
Approach Delay (s/veh)	0.0	3.1	10.7
Approach LOS			B

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		

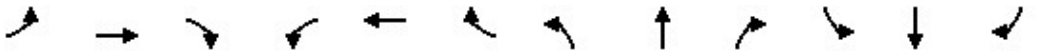
* Value less than 0.01.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	242	53	108	286	79	33	312	96	82	356	51
Future Volume (vph)	65	242	53	108	286	79	33	312	96	82	356	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.97			0.99	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1829			1820			1821			1841	
Flt Permitted		0.85			0.82			0.95			0.85	
Satd. Flow (perm)		1562			1501			1729			1580	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	75	278	61	124	329	91	38	359	110	94	409	59
RTOR Reduction (vph)	0	14	0	0	16	0	0	22	0	0	9	0
Lane Group Flow (vph)	0	400	0	0	528	0	0	485	0	0	553	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		17.2			17.2			18.0			18.0	
Effective Green, g (s)		17.2			17.2			18.0			18.0	
Actuated g/C Ratio		0.39			0.39			0.41			0.41	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		607			584			704			643	
v/s Ratio Prot												
v/s Ratio Perm		0.26			c0.35			0.28			c0.35	
v/c Ratio		0.66			0.90			0.69			0.86	
Uniform Delay, d1		11.1			12.7			10.8			11.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.6			17.3			5.5			14.0	
Delay (s)		13.7			30.0			16.2			25.9	
Level of Service		B			C			B			C	
Approach Delay (s/veh)		13.7			30.0			16.2			25.9	
Approach LOS		B			C			B			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	22.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	44.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	91.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	57	15	7	60	130	15	131	7	140	112	7
Future Volume (Veh/h)	10	57	15	7	60	130	15	131	7	140	112	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	12	69	18	8	72	157	18	158	8	169	135	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	868	679	139	728	679	162	143			166		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	868	679	139	728	679	162	143			166		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	79	98	97	78	82	99			88		
cM capacity (veh/h)	168	325	909	251	325	883	1440			1412		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	99	237	184	312
Volume Left	12	8	18	169
Volume Right	18	157	8	8
cSH	326	549	1440	1412
Volume to Capacity	0.30	0.43	0.01	0.12
Queue Length 95th (m)	9.5	16.4	0.3	3.1
Control Delay (s/veh)	20.8	16.4	0.8	4.7
Lane LOS	C	C	A	A
Approach Delay (s/veh)	20.8	16.4	0.8	4.7
Approach LOS	C	C		

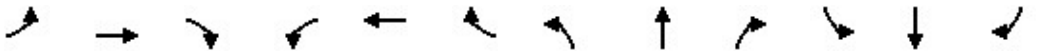
Intersection Summary				
Average Delay	9.1			
Intersection Capacity Utilization	44.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	90	118	176	373	348	134
Future Volume (vph)	90	118	176	373	348	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		0.95	0.95	1.00	
Frt	0.92		1.00	1.00	0.96	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1702		1700	1785	1813	
Flt Permitted	0.98		0.35	0.97	1.00	
Satd. Flow (perm)	1702		625	1730	1813	
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	118	155	232	491	458	176
RTOR Reduction (vph)	91	0	0	0	18	0
Lane Group Flow (vph)	182	0	209	514	616	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	10.7		35.2	35.2	35.2	
Effective Green, g (s)	10.7		35.2	35.2	35.2	
Actuated g/C Ratio	0.19		0.64	0.64	0.64	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	331		400	1109	1162	
v/s Ratio Prot	c0.11				c0.34	
v/s Ratio Perm			0.33	0.30		
v/c Ratio	0.55		0.52	0.46	0.53	
Uniform Delay, d1	19.9		5.3	5.0	5.4	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.9		4.8	1.4	1.7	
Delay (s)	21.8		10.1	6.4	7.1	
Level of Service	C		B	A	A	
Approach Delay (s/veh)	21.8			7.5	7.1	
Approach LOS	C			A	A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	9.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	54.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	69.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	10	81	7	7	67	135	7	7	7	109	9	7
Future Volume (vph)	10	81	7	7	67	135	7	7	7	109	9	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	90	8	8	74	150	8	8	8	121	10	8

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	109	232	24	139
Volume Left (vph)	11	8	8	121
Volume Right (vph)	8	150	8	8
Hadj (s)	0.01	-0.35	-0.10	0.17
Departure Headway (s)	4.6	4.1	4.7	4.9
Degree Utilization, x	0.14	0.26	0.03	0.19
Capacity (veh/h)	750	836	690	689
Control Delay (s/veh)	8.3	8.6	7.9	9.0
Approach Delay (s/veh)	8.3	8.6	7.9	9.0
Approach LOS	A	A	A	A

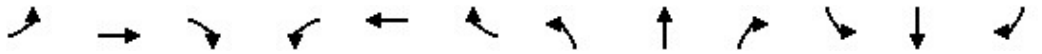
Intersection Summary				
Delay	8.6			
Level of Service	A			
Intersection Capacity Utilization	33.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	118	79	75	7	7	110
Future Volume (Veh/h)	118	79	75	7	7	110
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	128	86	82	8	8	120
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	90				428	86
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	90				428	86
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	91				99	88
cM capacity (veh/h)	1505				534	973

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	214	90	128
Volume Left	128	0	8
Volume Right	0	8	120
cSH	1505	1700	925
Volume to Capacity	0.09	0.05	0.14
Queue Length 95th (m)	2.1	0.0	3.6
Control Delay (s/veh)	4.8	0.0	9.5
Lane LOS	A		A
Approach Delay (s/veh)	4.8	0.0	9.5
Approach LOS			A

Intersection Summary			
Average Delay		5.2	
Intersection Capacity Utilization		31.2%	ICU Level of Service
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	258	279	62	47	12	246	7	58	7	7	7
Future Volume (vph)	7	258	279	62	47	12	246	7	58	7	7	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.93			0.99			0.97			0.96	
Flt Protected		1.00			0.97			0.96			0.98	
Satd. Flow (prot)		1752			1812			1766			1769	
Flt Permitted		1.00			0.59			0.75			0.89	
Satd. Flow (perm)		1747			1105			1385			1608	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	8	307	332	74	56	14	293	8	69	8	8	8
RTOR Reduction (vph)	0	81	0	0	8	0	0	16	0	0	5	0
Lane Group Flow (vph)	0	566	0	0	136	0	0	354	0	0	19	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.6			18.6			19.6			19.6	
Effective Green, g (s)		18.6			18.6			19.6			19.6	
Actuated g/C Ratio		0.39			0.39			0.42			0.42	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		688			435			575			667	
v/s Ratio Prot												
v/s Ratio Perm		c0.32			0.12			c0.26			0.01	
v/c Ratio		0.82			0.31			0.62			0.03	
Uniform Delay, d1		12.8			9.9			10.8			8.2	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		7.9			0.4			4.9			0.1	
Delay (s)		20.7			10.3			15.7			8.2	
Level of Service		C			B			B			A	
Approach Delay (s/veh)		20.7			10.3			15.7			8.2	
Approach LOS		C			B			B			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	47.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	15	190	191	7	4	13
Future Volume (Veh/h)	15	190	191	7	4	13
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	207	208	8	4	14
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	216				451	212
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	216				451	212
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	98
cM capacity (veh/h)	1354				559	828

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	223	216	18
Volume Left	16	0	4
Volume Right	0	8	14
cSH	1354	1700	748
Volume to Capacity	0.01	0.13	0.02
Queue Length 95th (m)	0.3	0.0	0.6
Control Delay (s/veh)	0.6	0.0	9.9
Lane LOS	A		A
Approach Delay (s/veh)	0.6	0.0	9.9
Approach LOS			A

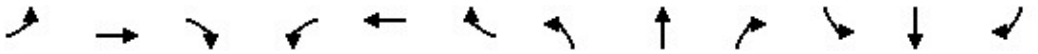
Intersection Summary			
Average Delay		0.7	
Intersection Capacity Utilization		32.4%	ICU Level of Service
Analysis Period (min)		15	



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	155	42	20	161	36	14
Future Volume (Veh/h)	155	42	20	161	36	14
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	168	46	22	175	39	15
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			214		410	191
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			214		410	191
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		93	98
cM capacity (veh/h)			1356		588	851

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	214	197	54
Volume Left	0	22	39
Volume Right	46	0	15
cSH	1700	1356	643
Volume to Capacity	0.13	0.02	0.08
Queue Length 95th (m)	0.0	0.4	2.1
Control Delay (s/veh)	0.0	1.0	11.1
Lane LOS		A	B
Approach Delay (s/veh)	0.0	1.0	11.1
Approach LOS			B

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	33.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	103	61	60	125	20	51	0	41	12	0	5
Future Volume (Veh/h)	6	103	61	60	125	20	51	0	41	12	0	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	7	112	66	65	136	22	55	0	45	13	0	5
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	158			178			441	447	145	481	469	147
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	158			178			441	447	145	481	469	147
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			95			89	100	95	97	100	99
cM capacity (veh/h)	1422			1398			503	481	902	452	467	900

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	185	223	100	18
Volume Left	7	65	55	13
Volume Right	66	22	45	5
cSH	1422	1398	628	525
Volume to Capacity	0.00*	0.05	0.16	0.03
Queue Length 95th (m)	0.1	1.1	4.3	0.8
Control Delay (s/veh)	0.3	2.5	11.8	12.1
Lane LOS	A	A	B	B
Approach Delay (s/veh)	0.3	2.5	11.8	12.1
Approach LOS			B	B

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	36.3%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	195	292	43	26	5
Future Volume (Veh/h)	6	195	292	43	26	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	212	317	47	28	5
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	364				567	341
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	364				567	341
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				94	99
cM capacity (veh/h)	1195				482	702

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	219	364	33
Volume Left	7	0	28
Volume Right	0	47	5
cSH	1195	1700	506
Volume to Capacity	0.00*	0.21	0.07
Queue Length 95th (m)	0.1	0.0	1.6
Control Delay (s/veh)	0.3	0.0	12.6
Lane LOS	A		B
Approach Delay (s/veh)	0.3	0.0	12.6
Approach LOS			B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	28.0%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	119	36	120	176	30	81
Future Volume (Veh/h)	119	36	120	176	30	81
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	129	39	130	191	33	88
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			168		600	149
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			168		600	149
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			91		92	90
cM capacity (veh/h)			1410		421	898

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	168	321	121
Volume Left	0	130	33
Volume Right	39	0	88
cSH	1700	1410	686
Volume to Capacity	0.10	0.09	0.18
Queue Length 95th (m)	0.0	2.3	4.8
Control Delay (s/veh)	0.0	3.6	11.4
Lane LOS		A	B
Approach Delay (s/veh)	0.0	3.6	11.4
Approach LOS			B

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	41.0%	ICU Level of Service	A
Analysis Period (min)	15		

* Value less than 0.01.

Appendix F:
Traffic Signal Warrant

Justification 7 - Projected Volumes

Intersection: County Road 9 & Mary Street Count Date: 2041 Total Conditions

Return to Justifications 1 - 6

INPUT

PRIOR TO START - FILL OUT GEOMETRY INPUTS IN THE INPUT DATA SPREADSHEET - STEPS A to D

a.- Both Intersection Roads Exist? Yes

b.- What kind of count estimate available? AM PM Peak Hour **Proceed to c2**

c1.- 8-Hour Count Estimate

Hour Ending	Main Eastbound Approach			Minor Northbound Approach			Main Westbound Approach			Minor Southbound Approach			Pedestrians Crossing Main Road
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
7:00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8:00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9:00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10:00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15:00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16:00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17:00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18:00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

c2.- Peak Hour Estimate

Peak Hour	Main Eastbound Approach			Minor Northbound Approach			Main Westbound Approach			Minor Southbound Approach			Pedestrians Crossing Main Road
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
AM Peak Hour	7	197	157	218	7	55	57	159	7	8	7	7	
PM Peak Hour	7	238	278	244	7	52	57	45	11	7	7	7	
AHV	4	109	109	116	4	27	29	51	5	4	4	4	0
	Main Street AHV Sum			**Minor Street AHV Sum**									
	305			**157**									

c3.- AADT Estimate - can leave movements without data blank. If midblock reading, can assign demand to through movement.

AADT	Main Eastbound Approach			Minor Northbound Approach			Main Westbound Approach			Minor Southbound Approach			Pedestrians Crossing Main Road
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
AHV	0	0	0	0	0	0	0	0	0	0	0	0	0
	Main Street AHV Sum			**Minor Street AHV Sum**									
	0			**0**									

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	720	-	-	462	64.1	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	170	-	-	157	92.1	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	720	-	-	305	42.4	
	B. Combined vehicle and pedestrian volume crossing	-	75	-	-	123	163.7	

Justification 7 - Projected Volumes

Intersection: County Road 42 & Edward Street East Count Date: 2036 Total Conditions

Return to Justifications 1 - 6

INPUT

PRIOR TO START - FILL OUT GEOMETRY INPUTS IN THE INPUT DATA SPREADSHEET - STEPS A to D

a.- Both Intersection Roads Exist? Yes

b.- What kind of count estimate available? AM PM Peak Hour **Proceed to c2**

c1.- 8-Hour Count Estimate

Hour Ending	Main Northbound Approach			Minor Eastbound Approach			Main Southbound Approach			Minor Westbound Approach			Pedestrians Crossing Main Road
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
7:00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8:00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9:00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10:00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15:00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16:00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17:00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18:00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

c2.- Peak Hour Estimate

Peak Hour	Main Northbound Approach			Minor Eastbound Approach			Main Southbound Approach			Minor Westbound Approach			Pedestrians Crossing Main Road
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
AM Peak Hour	68	210		133		175		224	52				
PM Peak Hour	175	306		89		117		285	133				
AHV	61	129	0	56	0	73	0	127	46	0	0	0	0
	Main Street AHV Sum			**Minor Street AHV Sum**									
	363			**129**									

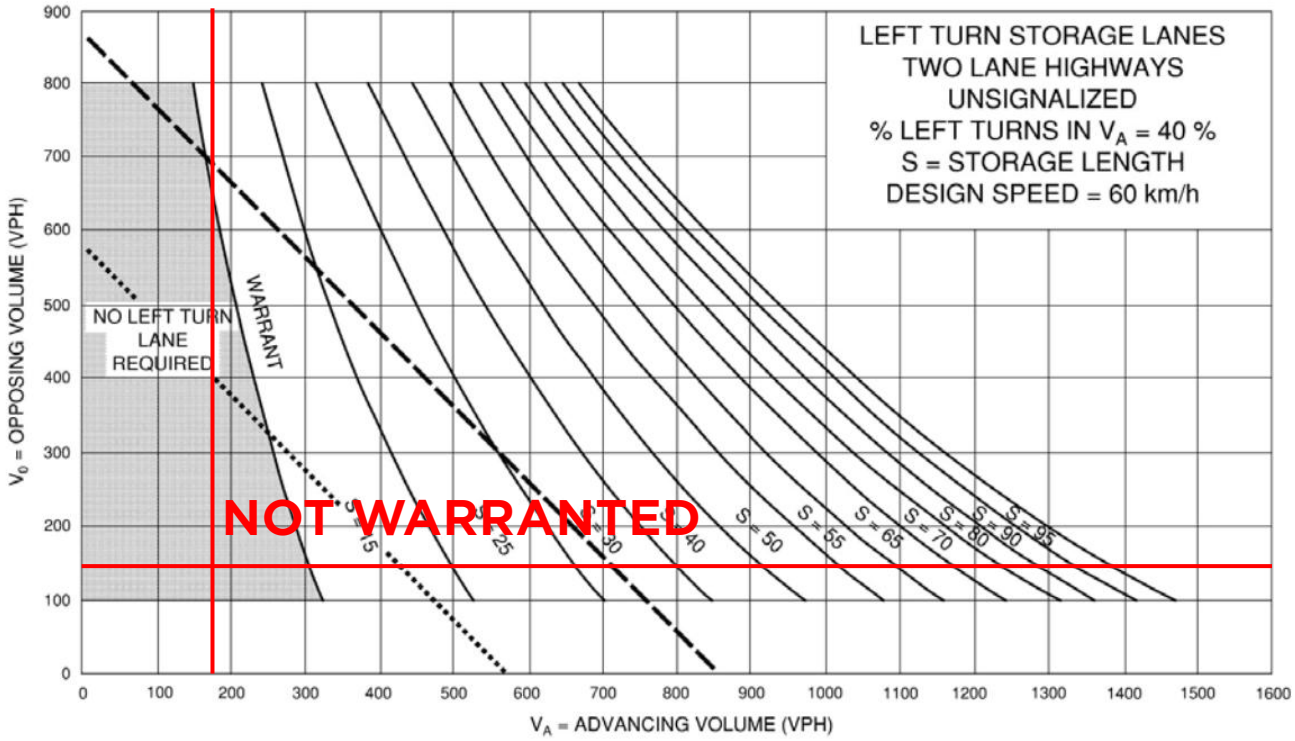
c3.- AADT Estimate - can leave movements without data blank. If midblock reading, can assign demand to through movement.

AADT	Main Northbound Approach			Minor Eastbound Approach			Main Southbound Approach			Minor Westbound Approach			Pedestrians Crossing Main Road
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
AHV	0	0	0	0	0	0	0	0	0	0	0	0	0
	Main Street AHV Sum			**Minor Street AHV Sum**									
	0			**0**									

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	-	-	-	492	102.4	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	180	-	-	-	129	71.4	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	480	-	-	-	363	75.7	
	B. Combined vehicle and pedestrian volume crossing	50	-	-	-	56	111.0	

Appendix G:
Left Turn Lane Nomographs



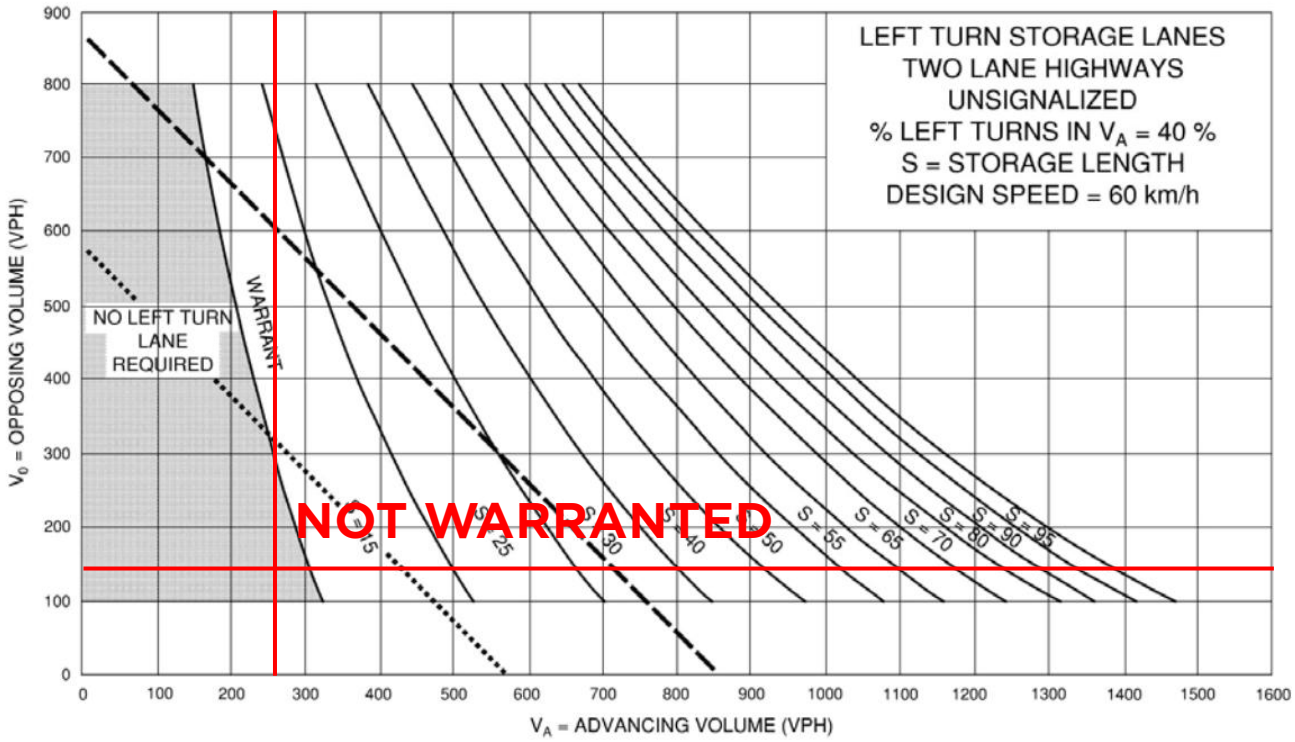


Figure 1: Left Turn Lane Nomograph – Mary Street & Edward Street East – 2046 Total