Appendix ‘G’

Transportation Impact Study

611 Saulsbury Street, Strathroy
Transportation Impact Study

Paradigm Transportation Solutions Limited

August 2022
220331

ptsl.com

Project Summary

Project Number
220331

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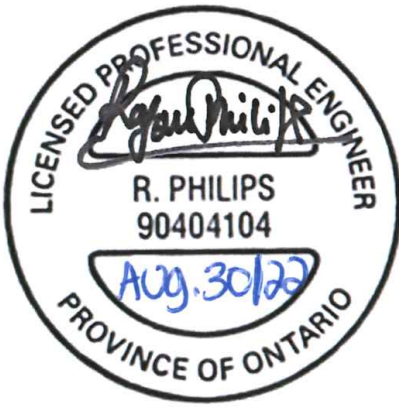
Client
SLD Group
75 Caradoc Street South
Strathroy ON

Client Contact
Peter Bakker

611 Saulsbury Street, Strathroy Transportation Impact Study



Consultant Project Team
Rajan Philips, M.Sc. (PI), P.Eng.
Maddison Murch, EIT

Rajan Philips, M.Sc. (PI), P.Eng.

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Paradigm Transportation Solutions Limited
5A-150 Pinebush Road
Cambridge ON N1R 8J8
p: 519.896.3163
905.381.2229
416.479.9684
www.ptsl.com

Executive Summary

Content

Paradigm Transportation Solutions Limited (Paradigm) has been retained to conduct this Transportation Impact Study (TIS) for the proposed residential subdivision located at 611 Saulsbury Street in the Municipality of Strathroy-Caradoc, Middlesex County.

This Transportation Impact Study (TIS) includes an analysis of existing traffic conditions, a description of the proposed development, traffic forecasts for a five-year horizon from development completion (2034), and assessment of traffic impacts with recommendations to accommodate the proposed development as appropriate.

Proposed Development

The subject lands are located west of Dominion Street and North of Albert Street.

The subdivision is to be completed in two phases. Phase 1 consists of 359 residential units including 244 townhouses, 103 semi-detached units and 12 single-family units. Vehicle access for Phase 1 is proposed via a single connection to Saulsbury Street and a single connection to Albert Street (CR 39).

Phase 1 of development is anticipated to be completed by 2029, and only Phase 1 traffic impacts are assessed in this TIS.

Phase 2 is proposed to include 189 residential units including 20 semi-detached units and 169 single-family units, and is subject to future development approvals. The timing of Phase 2 is not known at this time.

TIS Scope

The scope of the Transportation Impact Study for the proposed development includes:

- **Study Area intersections:**
  - Napperton Drive (CR 39) and Pike Road (unsignalized);
  - Albert Street (CR 39) and Victoria Street (CR 44) (signalized);
  - Metcalfe Street West (CR 39) and Caradoc Street (CR 81) (signalized);

  - Victoria Street (CR 44) and Saulsbury Street;
  - One connection to Saulsbury Street; and
  - One connection to Albert Street (CR 39).
- **Analysis Periods:** Weekday AM and PM peak hours.
- Background Developments: Cuddy Farm Residential Lands.
- **Traffic Conditions:** Existing (2022) and five-years from Phase 1 build-out (2034).

Conclusions

Based on the investigations carried out, it is concluded that:

- **Existing Traffic Conditions:** The study area intersections are operating with acceptable levels of service, except for the following critical movements:
  - Victoria Street and Albert Street: The northbound left-turn movement is operating with 95th percentile queues exceeding the available storage of 10 metres during the PM peak hour.
  - Caradoc Street and Metcalfe Street: The southbound left-turn movement is operating with 95th percentile queues exceeding the available storage of 20 metres during the AM and PM peak hours.
- **Development Trip Generation:** The development is forecast to generate 162 and 200 trips during the AM and PM peak hours, respectively.
- **2034 Background Traffic Conditions:** The study area intersections are forecast to operate with the same critical movements as under existing traffic conditions, with the addition of the following critical movements:
  - Victoria Street and Albert Street: The northbound left-turn movement is forecast to operate with 95th percentile queues exceeding the available storage of 10 metres during the AM peak hour.
  - Caradoc Street and Metcalfe Street: The westbound left-turn movement is forecast to operate with 95th percentile queues exceeding the available storage of 40 metres during the PM peak hour;

    The northbound shared through/right-turn movement is forecast to operate with LOS D and a v/c ratio greater than 0.85 during the PM peak hour; and

The southbound left-turn movement is forecast to operate with LOS F and a v/c ratio greater than 0.90 during the PM peak hour.

- **2034 Total Traffic Conditions:** The study area intersections are forecast to operate with similar levels of service as under background traffic conditions, indicating minimal impacts due to the subject development.
- **Left-Turn Lanes:**
  - A northbound left-turn lane with 15 metres of storage is warranted on Victoria Street (CR 44) at Saulsbury Street under 2034 total traffic conditions.
  - An eastbound left-turn lane is not warranted at the proposed access location on Albert Street (CR 39).
  - Extending existing left-turn lane storage lengths should be considered as part of future traffic monitoring and road reconstruction.

Recommendations

Based on the findings and conclusions of this study, it is recommended that the development be considered for approval as proposed.

Contents

Appendices

Figures

Tables

1 Introduction

1.1 Overview

Paradigm Transportation Solutions Limited (Paradigm) has been retained to conduct this Transportation Impact Study (TIS) for the proposed residential subdivision located at 611 Saulsbury Street in the Municipality of Strathroy-Caradoc, Middlesex County.

The subject lands are located west of Dominion Street and North of Albert Street.

The subdivision is to be completed in two phases. Phase 1 consists of 359 residential units including 244 townhouses, 103 semi-detached units and 12 single-family units. Vehicle access for Phase 1 is proposed via a single connection to Saulsbury Street and a single connection to Albert Street (CR 39).

Phase 1 of development is anticipated to be completed by 2029, and only Phase 1 traffic impacts are assessed in this TIS.

Phase 2 is proposed to include 189 residential units including 20 semi-detached units and 169 single-family units and is subject to future development approvals. The timing of Phase 2 is not known at this time.

Figure 1.1 details the subject development location, including the two phases of development.

1.2 Purpose and Scope

The purpose of this report is to identify and assess the potential traffic impact resulting from Phase 1 of the proposed development. The scope of the study, provided to County of Middlesex and Municipality of Strathroy-Caradoc staff via e-mail in June 2022, includes:

- Assessment of the current traffic and site conditions within the study area;
- Estimates of background traffic growth for five years from Phase 1 build-out (2034);
- Estimates of additional traffic generated by the subject site;
- Analyses of the impact of future traffic on the surrounding road network, including the following study area intersections:
  - Napperton Drive (CR 39) and Pike Road (unsignalized);

- Albert Street (CR 39) and Victoria Street (CR 44) (signalized);
- Metcalfe Street West (CR 39) and Caradoc Street (CR 81) (signalized);
- Victoria Street (CR 44) and Saulsbury Street;
- One connection to Saulsbury Street; and
- One connection to Albert Street (CR 39).

- Recommendations necessary to mitigate the site generated traffic in a satisfactory manner.

Appendix A contains the pre-study consultation material and responses from the County of Middlesex.

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Location of Subject Lands

611 Saulsbury Street, Strathroy TIS
220331

Figure 1.1

2 Existing Conditions

2.1 Existing Roadways

The main roadways near the subject site considered in assessing the traffic impacts of the development include:

- **Albert Street (CR 39)** is an east-west arterial road[1] under the jurisdiction of the County of Middlesex. The roadway generally has a two-lane cross section, and a posted speed limit of 50 km/h east of the municipal boundary and 60 km/h to the west. Sidewalks are generally provided on at least one side of the roadway.

  CR 39 continues west of the municipal boundary as Napperton Drive and east of Frank Street as Metcalfe Street West.

- **Victoria Street (CR 44)** is a north-south arterial road under the jurisdiction of the County of Middlesex. The roadway has a two-lane cross section and a posted speed limit of 50 km/h. Sidewalks are provided on the east side of the roadway south of Albert Street (CR 39), and on both sides of the roadway between Saulsbury Street and Caradoc Street North.

- **Pike Road** is a north-south local road under the jurisdiction of the Township of Adelaide-Metcalfe. The roadway has a two-lane cross section and a posted speed limit of 50 km/h.

- **Caradoc Street (CR 81)** is a north-south arterial road under the jurisdiction of the County of Middlesex. The roadway has a two-lane cross section north of Metcalfe Street and three lane cross section to the south (one travel lane in each direction and two-way centre left-turn lane). The roadway has a posted speed limit of 50 km/h. Sidewalks are provided on both sides of the roadway.

- **Saulsbury Street** is an east-west local road under the jurisdiction of the Municipality of Strathroy-Caradoc. The roadway has a two-lane cross section and an assumed speed limit of 50 km/h. Sidewalks are provided on the north side of the roadway between Victoria Street (CR 44) and Drury Lane, and on the south side between Drury Lane and Dominion Street.

Figure 2.1 illustrates the existing lane configuration and traffic control at the study area intersections.

[1] Municipality of Strathroy-Caradoc Official Plan Schedule 'B' Land Use and Transportation Plan, May 2019.

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Existing Lane Configuration and Traffic Control

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Figure 2.1

2.2 Transit Service

The City of London, City of Sarnia and Municipality of Strathroy-Caradoc have partnered to provide Inter-Community Transit which connects Sarnia, Strathroy-Caradoc and London. The only stop in Strathroy-Caradoc is provided on Front Street East between Head Street North and Colborne Street, approximately 1.9 kilometres from the subject subdivision.

2.3 Traffic Volumes

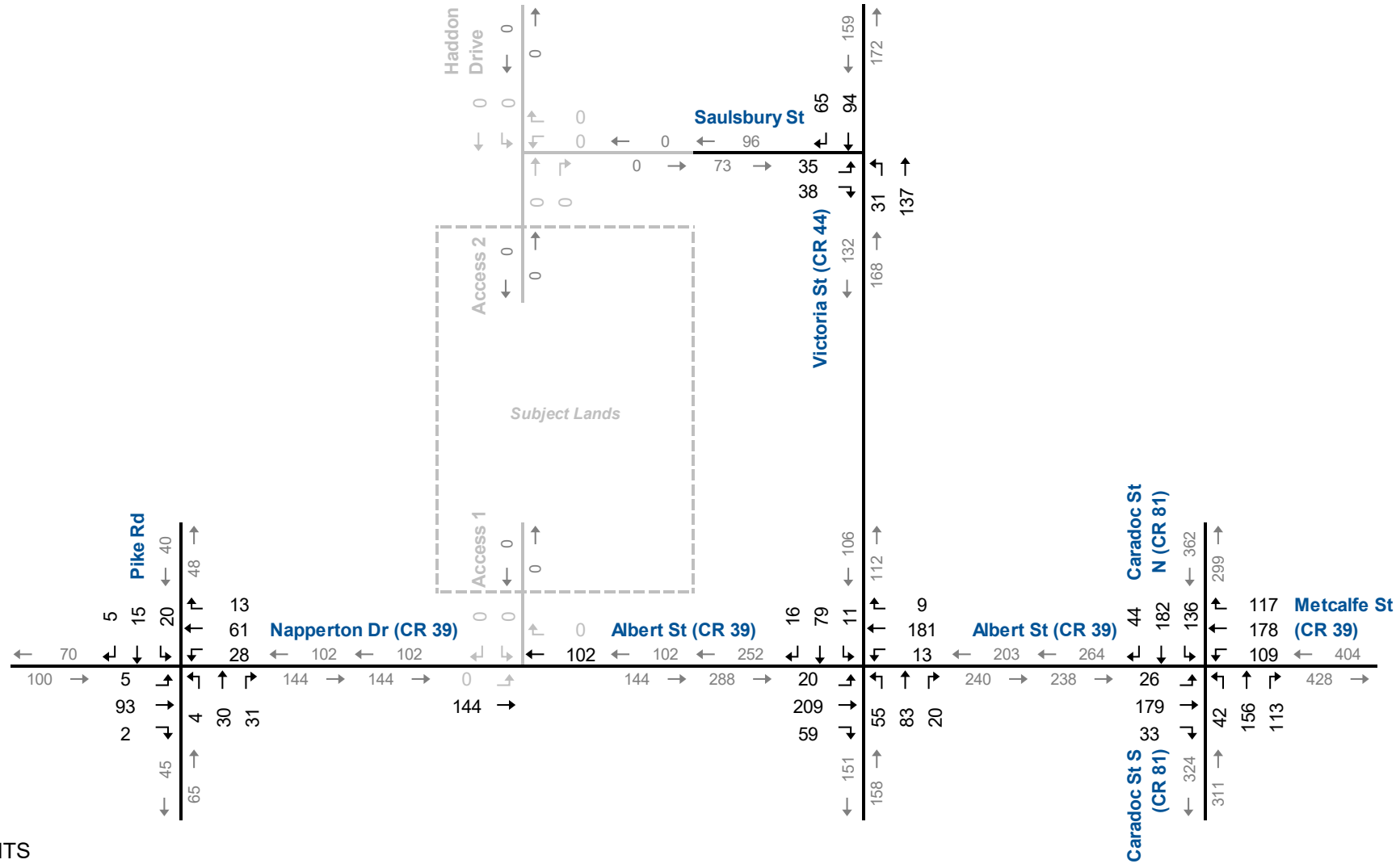
Turning movement count data was collected by Paradigm at the study area intersections on 29 June 2022 and 10 March 2022. **Table 2.1** summarizes the traffic count date and peak hour start time for each intersection.

TABLE 2.1: EXISTING TURNING MOVEMENT COUNT SUMMARY

Intersection	Count Date	AM Peak Hour	PM Peak Hour
Napperton Dr (CR 39) & Pike Rd	29 June 2022	8:30 AM	3:00 PM
Albert St (CR 39) & Victoria St (CR 44)	29 June 2022	8:15 AM	3:45 PM
Metcalfe St (CR 39) & Caradoc St (CR 81)	29 June 2022	8:45 AM	4:15 PM
Victoria St (CR 44) & Saulsbury St	10 March 2022	7:45 AM	3:15 PM

Figure 2.2a and **Figure 2.2b** illustrate the existing AM and PM weekday peak hour traffic volumes, respectively.

Appendix B contains the detailed traffic counts and signal timings for the study area intersections.



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Existing Traffic Volumes – AM Peak Hour

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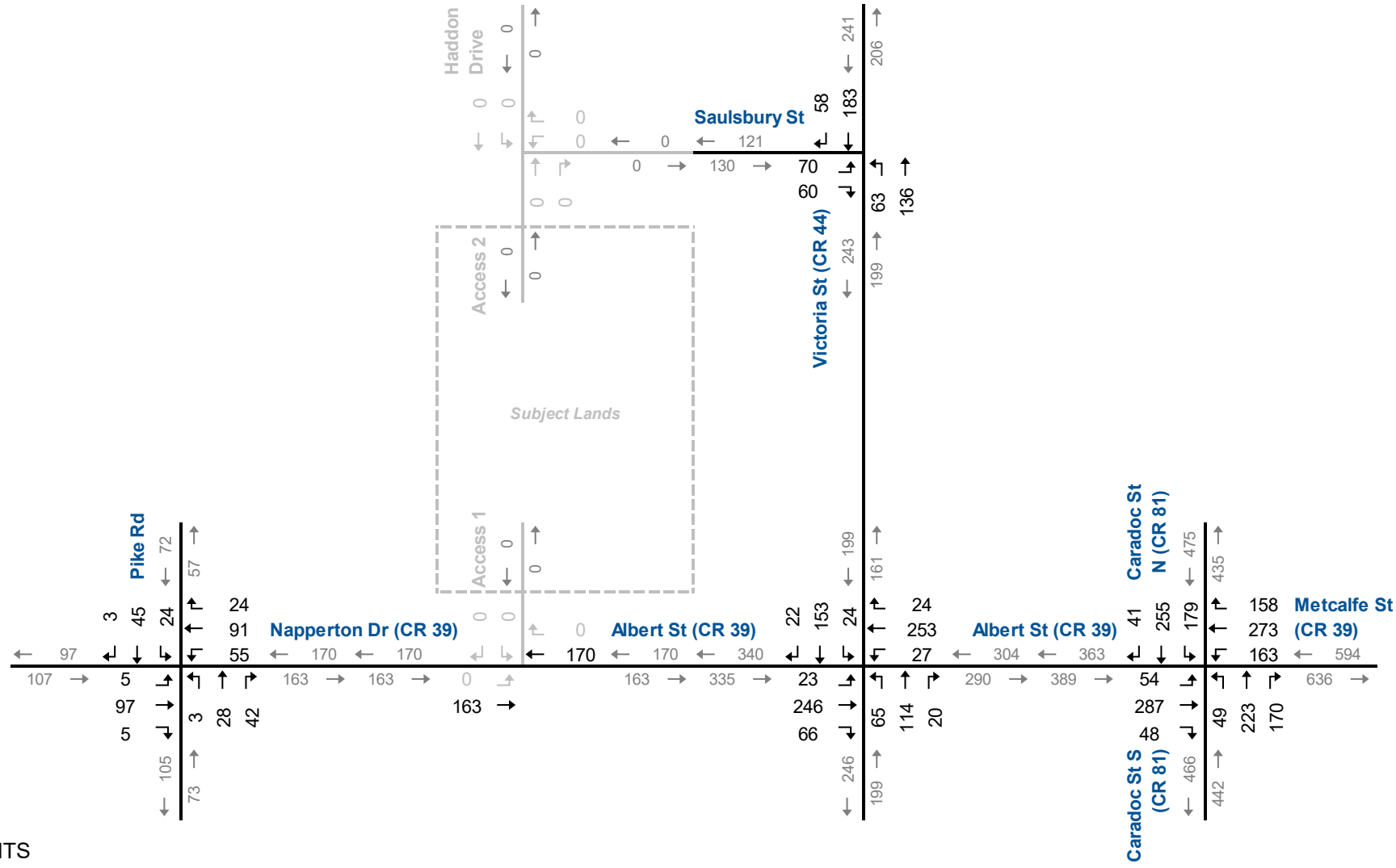
Figure 2.2a



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Existing Traffic Volumes – PM Peak Hour

611 Saulsbury Street, Strathroy TIS
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Figure 2.2b

2.4 Traffic Operations

The level of service conditions at the study area intersections have been assessed using Synchro 11 and based on TIS guidelines in the nearby City of St. Thomas[2], City of London[3] and Oxford County[4]. Traffic movements are considered critical under the following conditions:

Signalized Intersections

- Volume/capacity (V/C) ratios for overall intersection operations, through movements or shared through/turning movements increased to 0.85 or above;
- V/C ratios for dedicated turning movements of 0.90 or above;
- 95th percentile queue lengths for individual movements exceeds available lane storage.

Unsignalized Intersections

- Level of Service (LOS) “E” or better.

Intersection LOS is a recognized method of quantifying the average delay experienced by drivers at intersections. It is based on the delay experienced by individual vehicles executing various movements. The delay is related to the number of vehicles intending to make a particular movement, compared to the estimated capacity for that movement. The capacity is based on a number of criteria related to the opposing traffic flows and intersection geometry.

The highest possible rating is LOS A, under which the average total delay is equal to or less than 10.0 seconds per vehicle. When the average delay exceeds 80 seconds for signalized intersections, 50 seconds for unsignalized intersections or when the volume to capacity ratio is greater than 1.0, the movement is classed as LOS F and remedial measures are usually implemented, if they are feasible. LOS E is usually used as a guideline for the determination of road improvement needs on through lanes, while LOS F may be acceptable for left-turn movements at peak times, depending on delays.

Table 2.2 summarizes the results of the intersection operational analysis under existing conditions, including the AM and PM peak hour LOS, v/c ratios, and 95th percentile queues.

[2] City of St. Thomas Design Guidelines Manual, 2019.
[3] City of London Transportation Impact Assessment Guidelines, April 2012.
[4] County of Oxford Guidelines and Requirements for Traffic Impact Studies, October 2009.

The results indicate that the study area intersections are operating with acceptable levels of service, except for the following movements:

Victoria Street (CR 44) and Albert Street (CR 39)

- The northbound left-turn movement is operating with 95th percentile queues exceeding the available storage of 10 metres during the PM peak hour.

Caradoc Street (CR 81) and Metcalfe Street (CR 39)

- The southbound left-turn movement is operating with 95th percentile queues exceeding the available storage of 20 metres during the AM and PM peak hours.

Appendix C contains the detailed Synchro 11 reports.

TABLE 2.2: EXISTING TRAFFIC OPERATIONS

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Pike Road & Napperton Drive (CR 39)	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	B	>	**B**	<	B	>	**B**	
			Delay	<	7	>	**0**	<	8	>	**2**	<	10	>	**10**	<	11	>	**11**	
			V/C	<	0.00	>		<	0.02	>		<	0.09	>		<	0.07	>		
			Q	<	0	>		<	1	>		<	2	>		<	2	>		
	Victoria Street (CR 44) & Albert Street (CR 39)	TCS	LOS	B	C	>	**C**	B	B	>	**B**	A	A	>	**A**	A	A	>	**A**	**B**
			Delay	16	22	>	**21**	16	20	>	**20**	8	7	>	**7**	8	7	>	**7**	**16**
			V/C	0.08	0.58	>		0.06	0.42	>		0.09	0.12	>		0.02	0.12	>		
			Q	6	46	>		5	34	>		9	13	>		3	12	>		
			Stor.	40	-	>		25	-	>		10	-	>		15	-	>		
			Avail.	34	-	>		20	-	>		1	-	>		12	-	>		
	Caradoc Street (CR 81) & Metcalfe Street (CR 39)	TCS	LOS	B	C	A	**B**	B	C	A	**B**	B	C	>	**C**	C	C	>	**C**	**C**
			Delay	14	24	0	**19**	17	24	5	**16**	15	23	>	**22**	20	24	>	**23**	**20**
			V/C	0.06	0.31	0.06		0.25	0.31	0.21		0.10	0.50	>		0.38	0.41	>		
			Q	8	43	0		23	43	12		11	60	>		28	53	>		
			Stor.	35	-	30		40	-	30		25	-	>		20	-	>		
			Avail.	27	-	30		17	-	18		14	-	>		-8	-	>		
	Victoria Street (CR 44) & Saulsbury Street	TWSC	LOS	B		>	**B**					<	A		**A**		A	>	**A**	
			Delay	11		>	**11**					<	8		**1**		0	>	**0**	
			V/C	0.11		>						<	0.02				0.00	>		
			Q	3		>						<	1				0	>		
PM Peak Hour	Pike Road & Napperton Drive (CR 39)	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	B	>	**B**	<	B	>	**B**	
			Delay	<	8	>	**0**	<	8	>	**2**	<	11	>	**11**	<	13	>	**13**	
			V/C	<	0.00	>		<	0.04	>		<	0.11	>		<	0.15	>		
			Q	<	0	>		<	1	>		<	3	>		<	4	>		
	Victoria Street (CR 44) & Albert Street (CR 39)	TCS	LOS	B	C	>	**C**	B	C	>	**C**	A	A	>	**A**	A	A	>	**A**	**B**
			Delay	16	23	>	**23**	17	22	>	**21**	9	8	>	**8**	9	9	>	**9**	**17**
			V/C	0.10	0.64	>		0.12	0.56	>		0.12	0.16	>		0.04	0.20	>		
			Q	7	54	>		8	49	>		11	18	>		5	24	>		
			Stor.	40	-	>		25	-	>		10	-	>		15	-	>		
			Avail.	33	-	>		17	-	>		-1	-	>		10	-	>		
	Caradoc Street (CR 81) & Metcalfe Street (CR 39)	TCS	LOS	B	C	A	**C**	C	C	A	**B**	B	C	>	**C**	D	C	>	**C**	**C**
			Delay	16	27	0	**22**	23	26	5	**20**	16	30	>	**29**	36	27	>	**30**	**25**
			V/C	0.17	0.49	0.09		0.47	0.47	0.27		0.14	0.71	>		0.67	0.52	>		
			Q	13	69	0		32	66	14		12	95	>		38	71	>		
			Stor.	35	-	30		40	-	30		25	-	>		20	-	>		
			Avail.	22	-	30		8	-	16		13	-	>		-18	-	>		
	Victoria Street (CR 44) & Saulsbury Street	TWSC	LOS	B		>	**B**					<	A		**A**		A	>	**A**	
			Delay	13		>	**13**					<	8		**2**		0	>	**0**	
			V/C	0.24		>						<	0.05				0.00	>		
			Q	7		>						<	2				0	>		

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
Stor. - Existing Storage (m)
Avail. - Available Storage (m)
TCS - Traffic Control Signal
TWSC - Two-Way Stop Control
< / > - Shared with through movement

3 Development Concept

3.1 Development Description

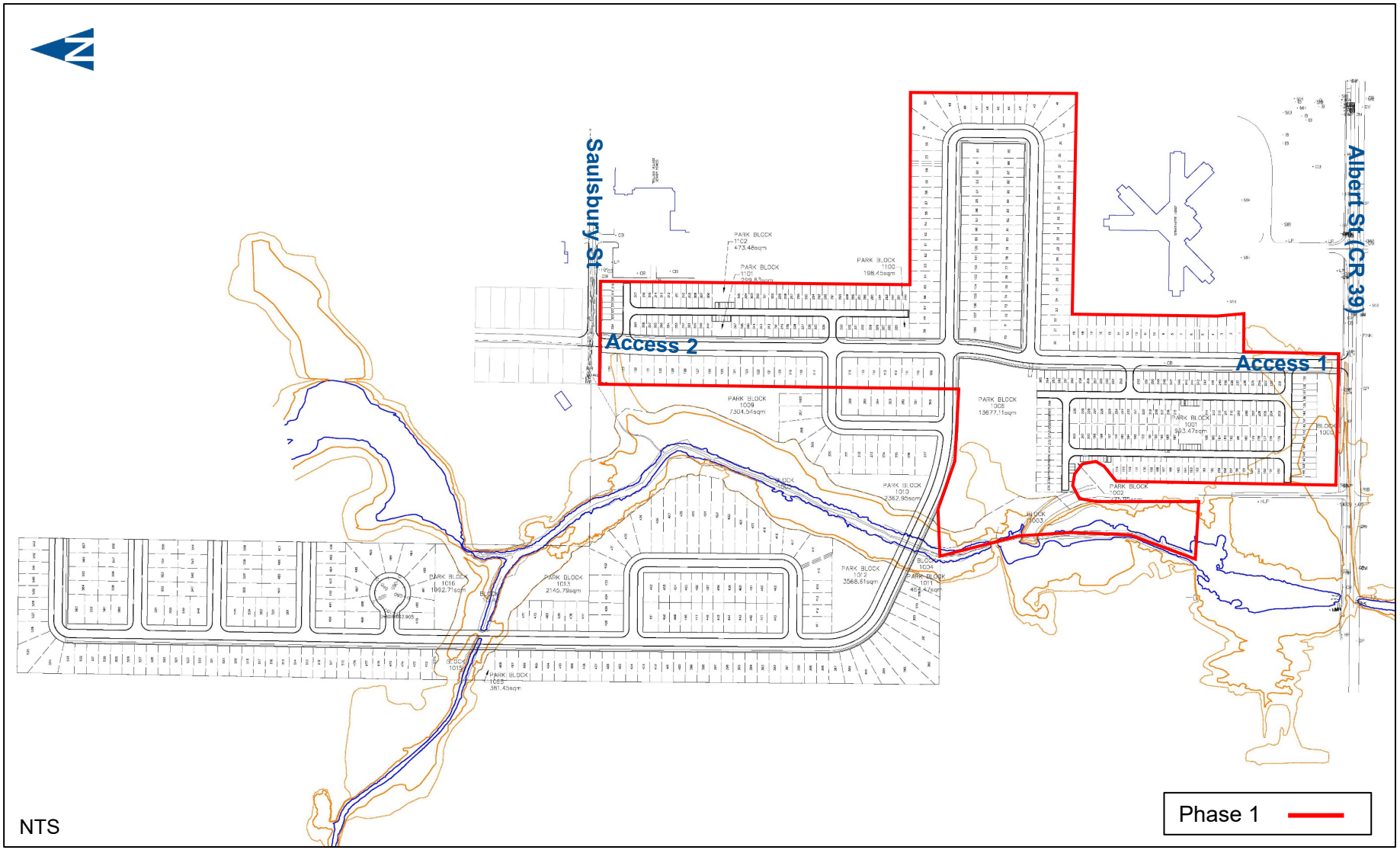
The subject lands are located west of Dominion Street and North of Albert Street.

The subdivision is to be completed in two phases. Phase 1 consists of 359 residential units including 244 townhouses, 103 semi-detached units and 12 single-family units. Vehicle access for Phase 1 is proposed via a single connection to Saulsbury Street and a single connection to Albert Street (CR 39).

Phase 1 of development is anticipated to be completed by 2029, and only Phase 1 traffic impacts are assessed in this TIS.

Phase 2 is proposed to include 189 residential units including 20 semi-detached units and 169 single-family units and is subject to future development approvals. The timing of Phase 2 is not known at this time.

Figure 3.1 shows the Draft Plan of Subdivision for Phase 1.



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Draft Plan of Subdivision

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Figure 3.1

3.2 Development Trip Generation

The Institute of Transportation Engineers (ITE) Trip Generation Manual[5] provides rates and equations used to estimate the peak hour traffic volumes generated by the Land Use Codes (LUC) of this development:

- LUC 210 (Single-Family Detached Housing);
- LUC 215 (Single-Family Attached Housing); and
- LUC 220 (Multifamily Housing, Low Rise).

Table 3.1 summarizes the forecast number of net new trips generated by the proposed development.

TABLE 3.1: TRIP GENERATION

Land Use	Number of Units	AM Peak Hour				PM Peak Hour			
		Rate	In	Out	Total	Rate	In	Out	Total
LUC 210 - Single-Family Detached Housing	12	Eq	3	8	**11**	Eq	9	5	**14**
LUC 215 - Single-Family Attached Housing	122	Eq	18	40	**58**	Eq	39	30	**69**
LUC 220 - Multifamily Housing (Low-Rise)	225	Eq	22	71	**93**	Eq	74	43	**117**
Total Trip Generation			**43**	**119**	**162**		**122**	**78**	**200**

LUC 210 - AM: Ln(T) = 0.91Ln(X)+ 0.12 | PM: Ln(T) = 0.94Ln(X) + 0.27

LUC 215 - AM: T = 0.52(X) - 5.70 | PM: T = 0.60(X) - 3.93

LUC 220 - AM: T = 0.31(X) + 22.85 | PM: T = 0.43(X) + 20.55

3.3 Development Trip Distribution and Assignment

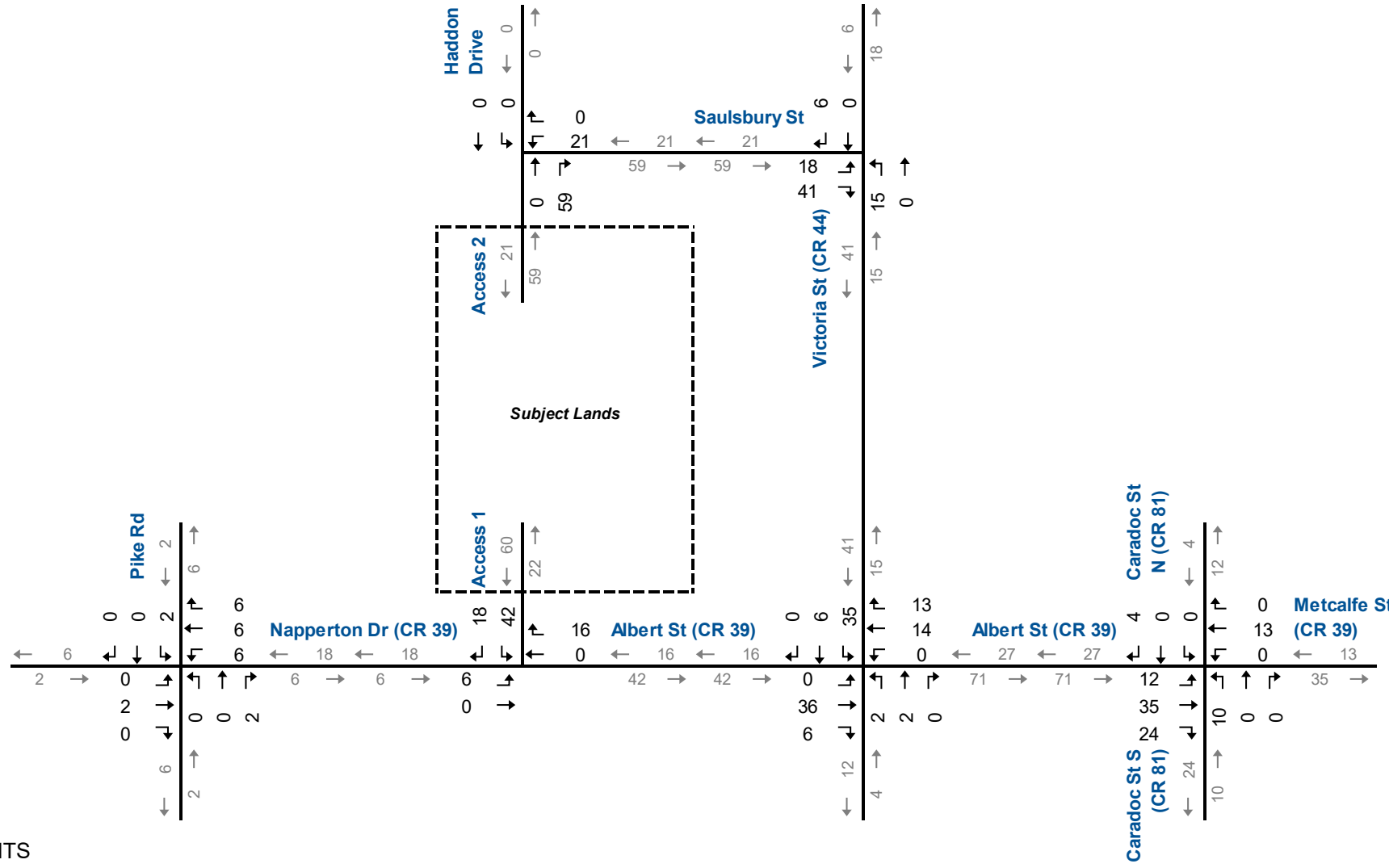
The trip distribution was determined based on existing travel patterns within the study area. **Table 3.2** displays the breakdown of trip distributions used in this study.

TABLE 3.2: ESTIMATED TRIP DISTRIBUTION

Origin/Destination	Percentage
North via Victoria St (CR 44)	15%
North via Caradoc St (CR 81)	10%
North via Pike Rd	5%
South via Victoria St (CR 44)	10%
South via Caradoc St (CR 81)	20%
South via Pike Rd	5%
East via Metcalfe St (CR 39)	30%
West via Napperton Dr (CR 39)	5%
Total	**100%**

[5] Institute of Transportation Engineers Trip Generation Manual 11th Edition, 2021.

Figure 3.2a and **Figure 3.2b** illustrate the site-generated traffic volumes for the AM and PM peak hours, respectively.



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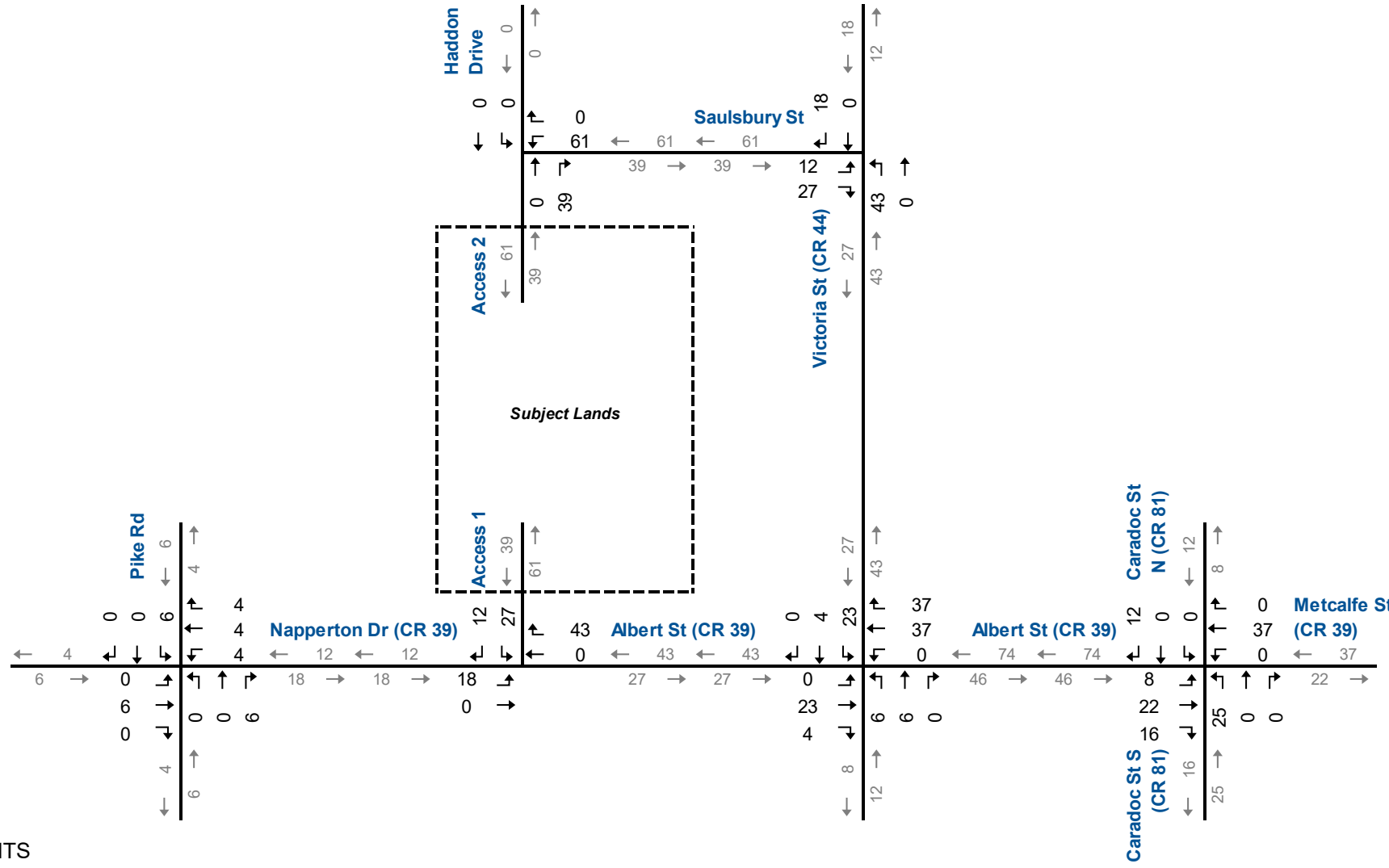
Site Generated Traffic Volumes – AM Peak Hour

611 Saulsbury Street, Strathroy TIS
220331

Figure 3.2a



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Site Generated Traffic Volumes – PM Peak Hour

611 Saulsbury Street, Strathroy TIS
220331

Figure 3.2b

4 Evaluation of Future Traffic Conditions

The assessment of future traffic conditions in this section includes estimates of future background and total traffic volumes, and the analyses for the 2034 horizon.

4.1 Background Traffic Forecasts

To derive the 2034 generalized background traffic volumes, a growth rate of 2% was applied to the existing roadway traffic volumes. This growth rate was confirmed with Middlesex County during the pre-study consultation.

4.1.1 Other Area Developments

The subdivision located in the northwest corner of Saulsbury Street and Drury Lane has been included in the background traffic volumes. **Figure 4.1** illustrates the location of the other area development.

The subdivision consists of 323 single-family units, 20 freehold townhouse units and 112 units in a townhouse block. The Transportation Impact Brief (TIB) Addendum[6] indicates the development is forecast to generate 296 trips during the AM peak hour and 389 trips during the PM peak hour.

Appendix D contains the other area development traffic volumes.

[6] Cuddy Farm Residential Subdivision, Strathroy, Middlesex County – Transportation Impact Brief Addendum. Prepared by Paradigm Transportation Solutions Limited, March 2022.

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Other Area Development Location

611 Saulsbury Street, Strathroy TIS
220331

Figure 4.1

4.2 2034 Background Traffic Operations

Figure 4.2a and **Figure 4.2b** illustrate the 2034 background traffic volumes, including road traffic growth and other area development traffic.

The 2034 background traffic volumes have been analyzed using the same methodology as under existing traffic conditions. Signal timings have not been optimized.

Table 4.1 summarizes the results of the 2034 background traffic operations. The results indicate that the study area intersections are forecast to operate with similar levels of service as under existing traffic conditions, except for the following movements:

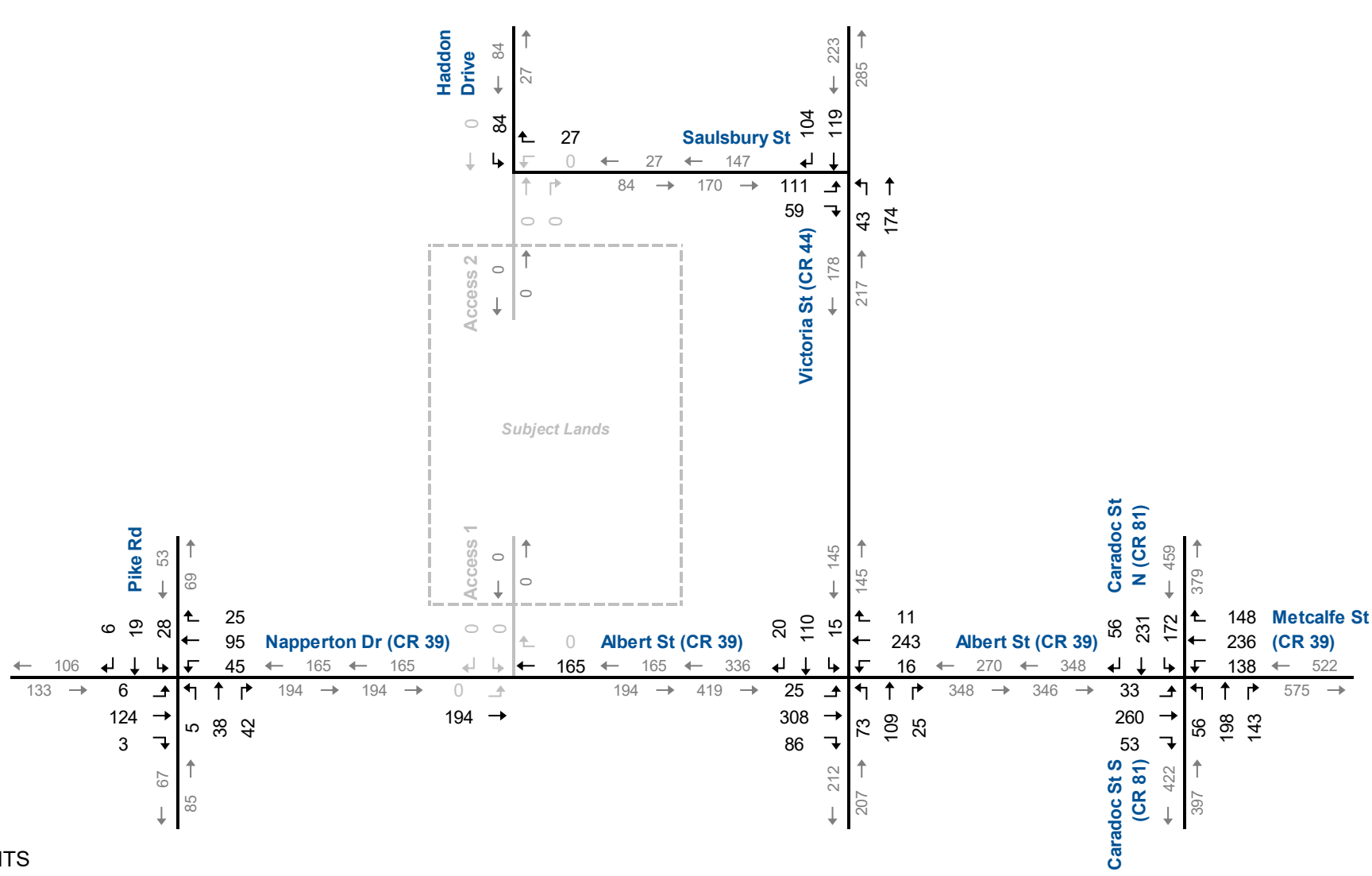
Victoria Street (CR 44) and Albert Street (CR 39)

- The northbound left-turn movement is forecast to operate with 95th percentile queues exceeding the available storage of 10 metres during the AM peak hour.

Caradoc Street (CR 81) and Metcalfe Street (CR 39)

- The westbound left-turn movement is forecast to operate with 95th percentile queues exceeding the available storage of 40 metres during the PM peak hour;
- The northbound shared through/right-turn movement is forecast to operate with LOS D and a v/c ratio greater than 0.85 during the PM peak hour; and
- The southbound left-turn movement is forecast to operate with LOS F and a v/c ratio greater than 0.90 during the PM peak hour.

Appendix E contains the supporting detailed Synchro 11 reports.



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2034 Background Traffic Volumes – AM Peak Hour

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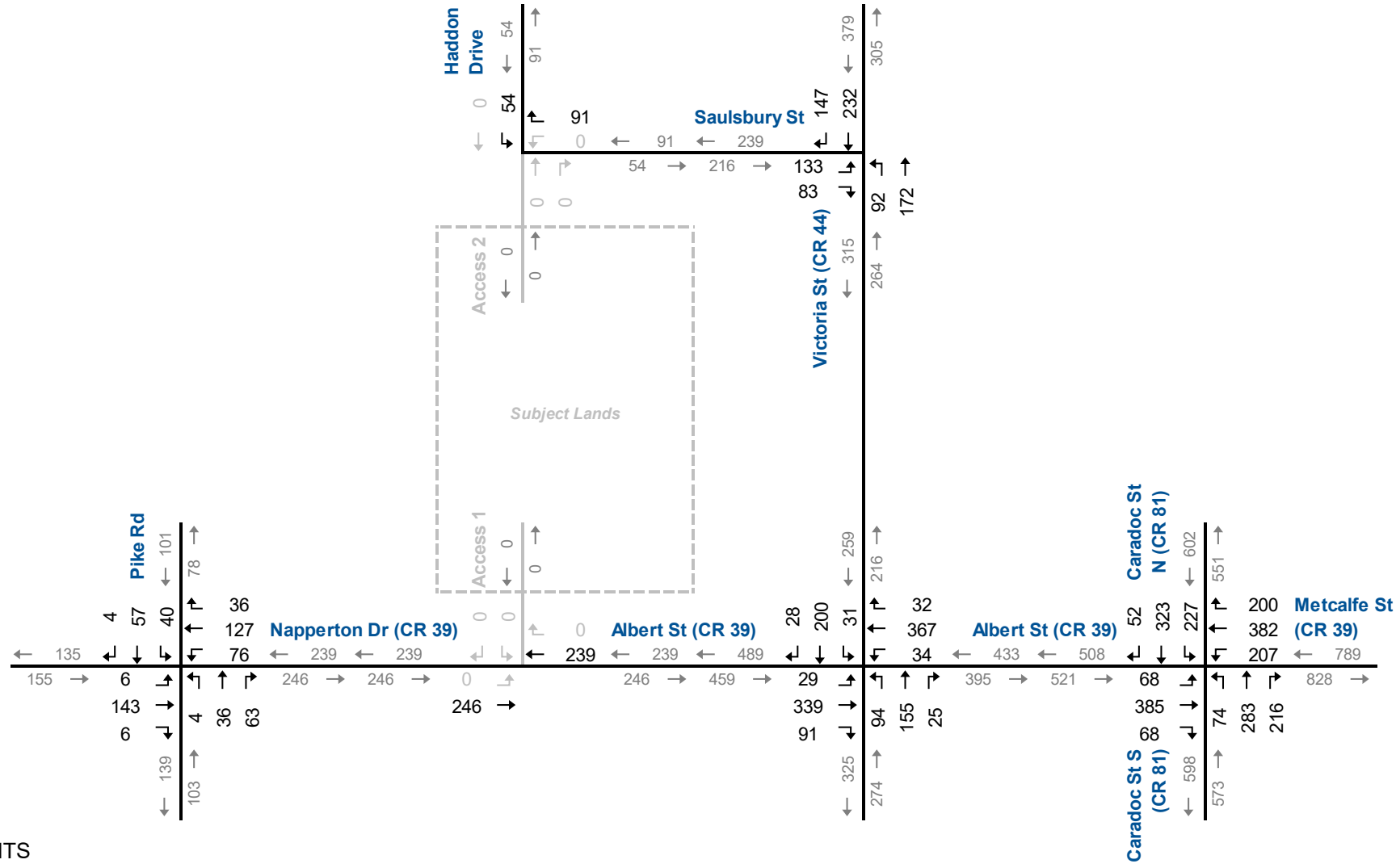
220331

Figure 4.2a



NTS

2034 Background Traffic Volumes – PM Peak Hour

611 Saulsbury Street, Strathroy TIS
220331

Figure 4.2b

TABLE 4.1: 2034 BACKGROUND TRAFFIC OPERATIONS

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Pike Road & Napperton Drive (CR 39)	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	B	>	**B**	<	B	>	**B**	
			Delay	<	8	>	**0**	<	8	>	**2**	<	11	>	**11**	<	13	>	**13**	
			V/C	<	0.00	>		<	0.03	>		<	0.14	>		<	0.12	>		
			Q	<	0	>		<	1	>		<	4	>		<	3	>		
	Victoria Street (CR 44) & Albert Street (CR 39)	TCS	LOS	B	C	>	**C**	B	B	>	**B**	B	A	>	**B**	B	B	>	**B**	**B**
			Delay	15	26	>	**25**	16	19	>	**19**	11	10	>	**10**	11	10	>	**10**	**18**
			V/C	0.09	0.74	>		0.10	0.48	>		0.13	0.16	>		0.03	0.17	>		
			Q	7	70	>		5	44	>		15	22	>		5	22	>		
			Stor.	40	-	>		25	-	>		10	-	>		15	-	>		
			Avail.	33	-	>		20	-	>		-5	-	>		10	-	>		
	Caradoc Street (CR 81) & Metcalfe Street (CR 39)	TCS	LOS	B	C	A	**C**	C	C	A	**B**	B	C	>	**C**	C	C	>	**C**	**C**
			Delay	15	26	0	**21**	20	26	5	**18**	16	27	>	**26**	28	26	>	**27**	**23**
			V/C	0.09	0.45	0.10		0.38	0.42	0.26		0.16	0.63	>		0.57	0.52	>		
			Q	9	63	0		28	57	13		13	80	>		34	68	>		
			Stor.	35	-	30		40	-	30		25	-	>		20	-	>		
			Avail.	26	-	30		12	-	17		12	-	>		-14	-	>		
	Victoria Street (CR 44) & Saulsbury Street	TWSC	LOS	B		>	**B**					<	A		**A**		A	>	**A**	
			Delay	14		>	**14**					<	8		**2**		0	>	**0**	
			V/C	0.31		>						<	0.04				0.00	>		
			Q	10		>						<	1				0	>		
PM Peak Hour	Pike Road & Napperton Drive (CR 39)	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	B	>	**B**	<	C	>	**C**	
			Delay	<	8	>	**0**	<	8	>	**2**	<	12	>	**12**	<	17	>	**17**	
			V/C	<	0.01	>		<	0.06	>		<	0.18	>		<	0.27	>		
			Q	<	0	>		<	2	>		<	4	>		<	8	>		
	Victoria Street (CR 44) & Albert Street (CR 39)	TCS	LOS	B	C	>	**C**	B	C	>	**C**	B	B	>	**B**	B	B	>	**B**	**C**
			Delay	16	27	>	**26**	17	25	>	**24**	12	11	>	**12**	12	12	>	**12**	**20**
			V/C	0.16	0.77	>		0.20	0.70	>		0.19	0.23	>		0.06	0.28	>		
			Q	8	78	>		9	72	>		19	30	>		8	38	>		
			Stor.	40	-	>		25	-	>		10	-	>		15	-	>		
			Avail.	32	-	>		16	-	>		-9	-	>		7	-	>		
	Caradoc Street (CR 81) & Metcalfe Street (CR 39)	TCS	LOS	C	C	A	**C**	D	C	A	**C**	B	D	>	**D**	F	C	>	**F**	**D**
			Delay	20	31	2	**26**	43	31	9	**29**	19	46	>	**43**	163	31	>	**81**	**44**
			V/C	0.28	0.66	0.12		0.76	0.66	0.35		0.26	0.90	>		1.21	0.66	>		
			Q	16	96	3		51	96	25		16	149	>		86	93	>		
			Stor.	35	-	30		40	-	30		25	-	>		20	-	>		
			Avail.	19	-	27		-11	-	5		9	-	>		-66	-	>		
	Victoria Street (CR 44) & Saulsbury Street	TWSC	LOS	C		>	**C**					<	A		**A**		A	>	**A**	
			Delay	22		>	**22**					<	8		**3**		0	>	**0**	
			V/C	0.54		>						<	0.09				0.00	>		
			Q	23		>						<	2				0	>		

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
Stor. - Existing Storage (m)
Avail. - Available Storage (m)
TCS - Traffic Control Signal
TWSC - Two-Way Stop Control
< / > - Shared with through movement

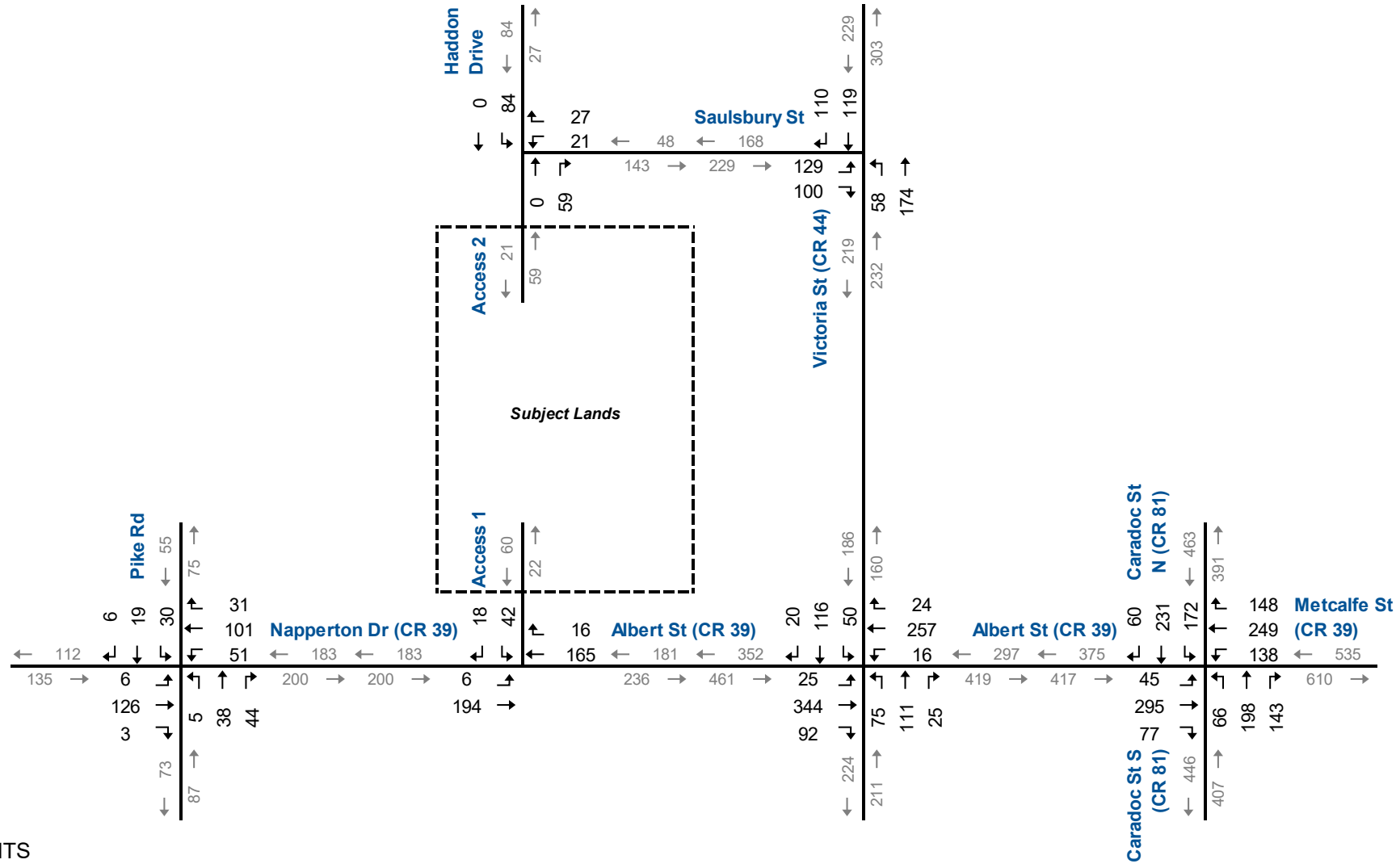
4.3 2034 Total Traffic Operations

Figure 4.3a and **Figure 4.3b** illustrate the 2034 total traffic volumes, including trips generated by the proposed development.

The 2034 total traffic volumes have been analyzed using the same methodology as under existing and background traffic conditions. Signal timings have not been optimized.

Table 4.2 summarizes the results of the 2034 total traffic operations. The results indicate that the study area intersections are forecast to operate with similar levels of service as under background traffic conditions.

Appendix F contains the supporting detailed Synchro 11 reports.

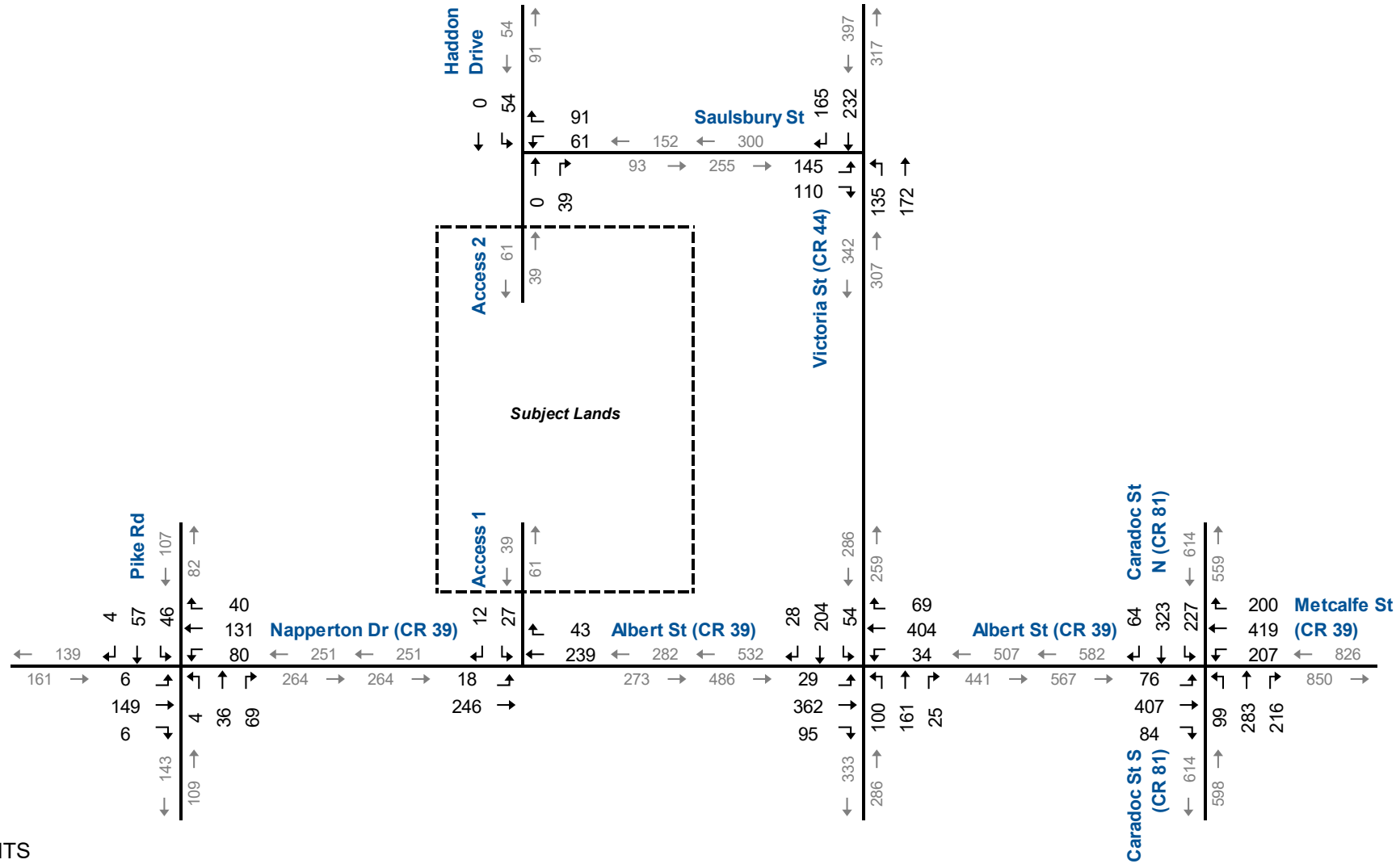


NTS

2034 Total Traffic Volumes – AM Peak Hour

611 Saulsbury Street, Strathroy TIS
220331

Figure 4.3a



NTS

2034 Total Traffic Volumes – PM Peak Hour

611 Saulsbury Street, Strathroy TIS
220331

Figure 4.3b

TABLE 4.2: 2034 TOTAL TRAFFIC OPERATIONS

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Pike Road & Napperton Drive (CR 39)	TWSC	LOS	<	A	>	A	<	A	>	A	<	B	>	B	<	B	>	B	
			Delay	<	8	>	0	<	8	>	2	<	11	>	11	<	14	>	14	
			V/C	<	0.00	>		<	0.04	>		<	0.14	>		<	0.12	>		
			Q	<	0	>		<	1	>		<	4	>		<	3	>		
	Victoria Street (CR 44) & Albert Street (CR 39)	TCS	LOS	B	C	>	C	B	B	>	B	B	B	>	B	B	B	>	B	B
			Delay	14	28	>	27	16	19	>	19	12	10	>	11	12	11	>	11	20
			V/C	0.10	0.78	>		0.12	0.51	>		0.14	0.17	>		0.10	0.18	>		
			Q	7	80	>		6	48	>		16	22	>		11	23	>		
			Stor.	40	-	>		25	-	>		10	-	>		15	-	>		
			Avail.	33	-	>		19	-	>		-6	-	>		4	-	>		
	Caradoc Street (CR 81) & Metcalfe Street (CR 39)	TCS	LOS	B	C	A	C	C	C	A	B	B	C	>	C	C	C	>	C	C
			Delay	16	27	2	21	21	26	5	19	17	27	>	26	28	26	>	27	23
			V/C	0.13	0.51	0.14		0.41	0.44	0.26		0.19	0.63	>		0.57	0.53	>		
			Q	11	71	5		28	60	13		15	80	>		34	69	>		
			Stor.	35	-	30		40	-	30		25	-	>		20	-	>		
			Avail.	24	-	25		12	-	17		10	-	>		-14	-	>		
	Victoria Street (CR 44) & Saulsbury Street	TWSC	LOS	C		>	C					<	A		A		A	>	A	
			Delay	16		>	16					<	8		2		0	>	0	
			V/C	0.42		>						<	0.05				0.00	>		
			Q	16		>						<	2				0	>		
	Napperton Drive (CR 39)/Albert Street (CR 39) & Access 1	TWSC	LOS	<	A		A		A	>	A					B		>	B	
			Delay	<	8		0		0	>	0					11		>	11	
			V/C	<	0.01				0.00	>						0.10		>		
			Q	<	0				0	>						2		>		
	Access 2/Haddon Drive & Saulsbury Street	TWSC	LOS					A		>	A		A	>	A	<	A		A	
			Delay					9		>	9		0	>	0	<	8		8	
			V/C					0.06		>			0.00	>		<	0.06			
			Q					2		>			0	>		<	2			
PM Peak Hour	Pike Road & Napperton Drive (CR 39)	TWSC	LOS	<	A	>	A	<	A	>	A	<	B	>	B	<	C	>	C	
			Delay	<	8	>	0	<	8	>	2	<	12	>	12	<	18	>	18	
			V/C	<	0.01	>		<	0.06	>		<	0.19	>		<	0.30	>		
			Q	<	0	>		<	2	>		<	5	>		<	9	>		
	Victoria Street (CR 44) & Albert Street (CR 39)	TCS	LOS	B	C	>	C	B	C	>	C	B	B	>	B	B	B	>	B	C
			Delay	18	28	>	27	18	29	>	28	13	12	>	12	12	13	>	12	22
			V/C	0.21	0.79	>		0.21	0.81	>		0.20	0.24	>		0.11	0.29	>		
			Q	9	85	>		10	89	>		20	31	>		12	39	>		
			Stor.	40	-	>		25	-	>		10	-	>		15	-	>		
			Avail.	31	-	>		15	-	>		-10	-	>		3	-	>		
	Caradoc Street (CR 81) & Metcalfe Street (CR 39)	TCS	LOS	C	C	A	C	D	C	B	C	C	D	>	D	F	C	>	F	D
			Delay	24	33	3	27	50	34	10	32	22	46	>	42	163	31	>	80	45
			V/C	0.35	0.70	0.15		0.81	0.73	0.36		0.37	0.90	>		1.21	0.68	>		
			Q	17	103	6		55	107	27		21	149	>		86	96	>		
			Stor.	35	-	30		40	-	30		25	-	>		20	-	>		
			Avail.	18	-	24		-15	-	3		4	-	>		-66	-	>		
	Victoria Street (CR 44) & Saulsbury Street	TWSC	LOS	D		>	D					<	A		A		A	>	A	
			Delay	35		>	35					<	9		4		0	>	0	
			V/C	0.72		>						<	0.13				0.00	>		
			Q	41		>						<	4				0	>		
	Napperton Drive (CR 39)/Albert Street (CR 39) & Access 1	TWSC	LOS	<	A		A		A	>	A					B		>	B	
			Delay	<	8		0		0	>	0					12		>	12	
			V/C	<	0.01				0.00	>						0.08		>		
			Q	<	0				0	>						2		>		
	Access 2/Haddon Drive & Saulsbury Street	TWSC	LOS					A		>	A		A	>	A	<	A		A	
			Delay					10		>	10		0	>	0	<	7		7	
			V/C					0.17		>			0.00	>		<	0.04			
			Q					4		>			0	>		<	1			

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
Stor. - Existing Storage (m)
Avail. - Available Storage (m)
TCS - Traffic Control Signal
TWSC - Two-Way Stop Control
< / > - Shared with through movement

5 Left-Turn Lanes

5.1 Existing Left-Turn Lanes

As noted in **Section 4**, the left-turn queue lengths are projected to exceed the available storage lengths under 2034 background and total traffic conditions at the following locations:

- Northbound left-turns at Victoria Street (CR 44) and Albert Street (CR 39); and
- Southbound and westbound left-turns at Caradoc Street (CR 81) and Metcalfe Street (CR 39).

It is noted that extending the left turn storage lengths at the above locations should be considered as part of future road reconstruction and traffic monitoring.

5.2 New Left-Turn Lanes

The Ministry of Transportation Design Supplement for the Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads[7] provides guidance on the assessment and/or need for auxiliary left-turn lanes.

Warrants have been calculated for northbound left-turns on Victoria Street (CR 44) at Saulsbury Street, and eastbound left-turns on Albert Street (CR 39) at Access 1.

The warrants were calculated using the nomographs for left-turn lanes on a two-lane undivided highway at an unsignalized intersection, with a design speed of 10 km/h over the posted speed limit.

Table 5.1 summarizes the results of the warrants.

TABLE 5.1: LEFT-TURN LANE WARRANT SUMMARY

Intersection	Movement	Design Speed	AM Peak Hour	PM Peak Hour
Victoria St (CR 44) & Saulsbury St	Northbound	60 km/h	Not warranted	15m warranted
Albert St (CR 39) & Access 1	Eastbound	70 km/h	Not warranted	Not warranted

Based on this criterion, a northbound left-turn lane with 15-metres of storage on Victoria Street (CR 44) at Saulsbury Street is warranted under 2034 total traffic conditions.

[7] MTO Design Supplement for TAC Geometric Design Guide for Canadian Roads, June 2017.

Appendix G contains the warrant nomographs.

6 Conclusions and Recommendations

6.1 Conclusions

Based on the investigations carried out, it is concluded that:

- **Existing Traffic Conditions:** The study area intersections are operating with acceptable levels of service, except for the following critical movements:
  - Victoria Street and Albert Street: The northbound left-turn movement is operating with 95th percentile queues exceeding the available storage of 10 metres during the PM peak hour.
  - Caradoc Street and Metcalfe Street: The southbound left-turn movement is operating with 95th percentile queues exceeding the available storage of 20 metres during the AM and PM peak hours.
- **Development Trip Generation:** The development is forecast to generate 162 and 200 trips during the AM and PM peak hours, respectively.
- **2034 Background Traffic Conditions:** The study area intersections are forecast to operate with the same critical movements as under existing traffic conditions, with the addition of the following critical movements:
  - Victoria Street and Albert Street: The northbound left-turn movement is forecast to operate with 95th percentile queues exceeding the available storage of 10 metres during the AM peak hour.
  - Caradoc Street and Metcalfe Street: The westbound left-turn movement is forecast to operate with 95th percentile queues exceeding the available storage of 40 metres during the PM peak hour;

    The northbound shared through/right-turn movement is forecast to operate with LOS D and a v/c ratio greater than 0.85 during the PM peak hour; and

    The southbound left-turn movement is forecast to operate with LOS F and a v/c ratio greater than 0.90 during the PM peak hour.
- **2034 Total Traffic Conditions:** The study area intersections are forecast to operate with similar levels of service as under background traffic conditions, indicating minimal impacts due to the subject development.

- **Left-Turn Lanes:**
  - A northbound left-turn lane with 15 metres of storage is warranted on Victoria Street (CR 44) at Saulsbury Street under 2034 total traffic conditions.
  - An eastbound left-turn lane is not warranted at the proposed access location on Albert Street (CR 39).
  - Extending existing left-turn lane storage lengths should be considered as part of future traffic monitoring and road reconstruction.

6.2 Recommendations

Based on the findings and conclusions of this study, it is recommended that the development be considered for approval as proposed.

Appendix A

Pre-Study Consultation

Maddison Murch

From: Chris Traini <ctraini@middlesex.ca>
Sent: June 24, 2022 10:16 AM
To: Maddison Murch; jhuff@strathroy-caradoc.ca
Cc: Rajan Philips; jstraus@strathroy-caradoc.ca; jfohkens@bmross.net; peter@built.by
Subject: RE: (220331) 611 Saulsbury Street, Strathroy TIA Pre-Study Consultation

I'm fine with this approach Maddison.
Chris

Chris Traini, P.Eng.
Deputy CAO/County Engineer
County of Middlesex
ctraini@middlesex.ca
(519) 434-7321 ext. 2264

From: Maddison Murch <mmurch@ptsl.com>
Sent: Wednesday, June 22, 2022 4:49 PM
To: jhuff@strathroy-caradoc.ca; Chris Traini <ctraini@middlesex.ca>
Cc: Rajan Philips <rphilips@ptsl.com>; jstraus@strathroy-caradoc.ca; jfohkens@bmross.net; peter@built.by
Subject: RE: (220331) 611 Saulsbury Street, Strathroy TIA Pre-Study Consultation

Hi Chris and Jennifer,

I am following up regarding the below scope of work, sent on June 10. Please let us know if you have any comments or questions.

Regards,

Maddison Murch, EIT
Transportation Consultant

Paradigm Transportation Solutions Limited
p: 519.896.3163 x205
e: mmurch@ptsl.com

From: Maddison Murch
Sent: June 10, 2022 1:14 PM
To: jhuff@strathroy-caradoc.ca; ctraini@middlesex.ca

Cc: Rajan Philips <rphilips@ptsl.com>; jstraus@strathroy-caradoc.ca; jfohkens@bmross.net; peter@built.by
Subject: (220331) 611 Saulsbury Street, Strathroy TIA Pre-Study Consultation

Hi Chris and Jennifer,

We have been retained by SLD Group to complete the Transportation Impact Assessment (TIA) for the proposed residential subdivision located at 611 Saulsbury Street in Strathroy-Caradoc, Middlesex County. The proposed subdivision is located on the vacant lands west of Dominion Street and north of Albert Street/Napperton Drive (CR 39). Please see the attached Site Location Plan and Concept Subdivision Plan.

As shown in the Concept Plan, Phase 1 of the proposed development is outlined in red. Phase 1 will include a total of 358 dwelling units, comprising 224 condominium townhouses, 19 street townhouses, 103 semi-detached houses and 12 single detached houses.
Access for Phase 1 is proposed via two connections to the north along Saulsbury Street and one connection to the south on Albert Street. There will be an emergency access to the Retirement Home to the east. A future development connection to the west is also identified.

The Plan also illustrates Phase 2 (area outside the red outline) for future development to accommodate 189 dwelling units, including 169 singles and 20 semi-detached units. Phase 2 will potentially have an additional access connection to Pannell Lane extension.

It is noted that the Draft Plan Application is limited to Phase 1. The TIA will assess the traffic impacts due to Phase 1 only, in a five-year horizon after completion. All Phase 1 traffic will be conservatively assigned to the Saulsbury Street and Albert Street connections.
A future TIA will need to be undertaken for Phase 2 approval.

Based on the above background, we have prepared the following technical scope of work for review/approval:

- Weekday AM and PM peak hours for analysis
- Study Area Intersections:
    - Napperton Drive (CR 39) and Pike Road (unsignalized).
    - Albert Street (CR 39) and Victoria Street (CR 44) (signalized);
    - Metcalfe Street East (CR 39) and Caradoc Street (CR 81) (signalized);
    - Saulsbury Street and Victoria Street (CR 44) (unsignalized); and
    - Access intersections on Albert Street (1) and on Saulsbury Street (2).
- Horizon Year: five years after completion.
- Background Growth Rate: 2% compounded annually.
- Background Developments: Residential subdivision north-east of the subject subdivision, north of Saulsbury Street. **Please confirm and provide any additional developments.**
- Background roadway improvements: **Please confirm**
- Trip Generation: ITE Trip Generation Manual 11th Edition.
- Trip Distribution: Existing traffic patterns.

Please let us know if you have any questions or comments.

Regards,

Maddison Murch, EIT
Transportation Consultant

Paradigm Transportation Solutions Limited
5A-150 Pinebush Road, Cambridge ON N1R 8J8

p: 519.896.3163 x205
e: mmurch@ptsl.com
w: www.ptsl.com

Appendix B

Existing Traffic Data

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Albert Street & Victoria Street
Site Code: 220331
Start Date: 06/29/2022

Turning Movement Data

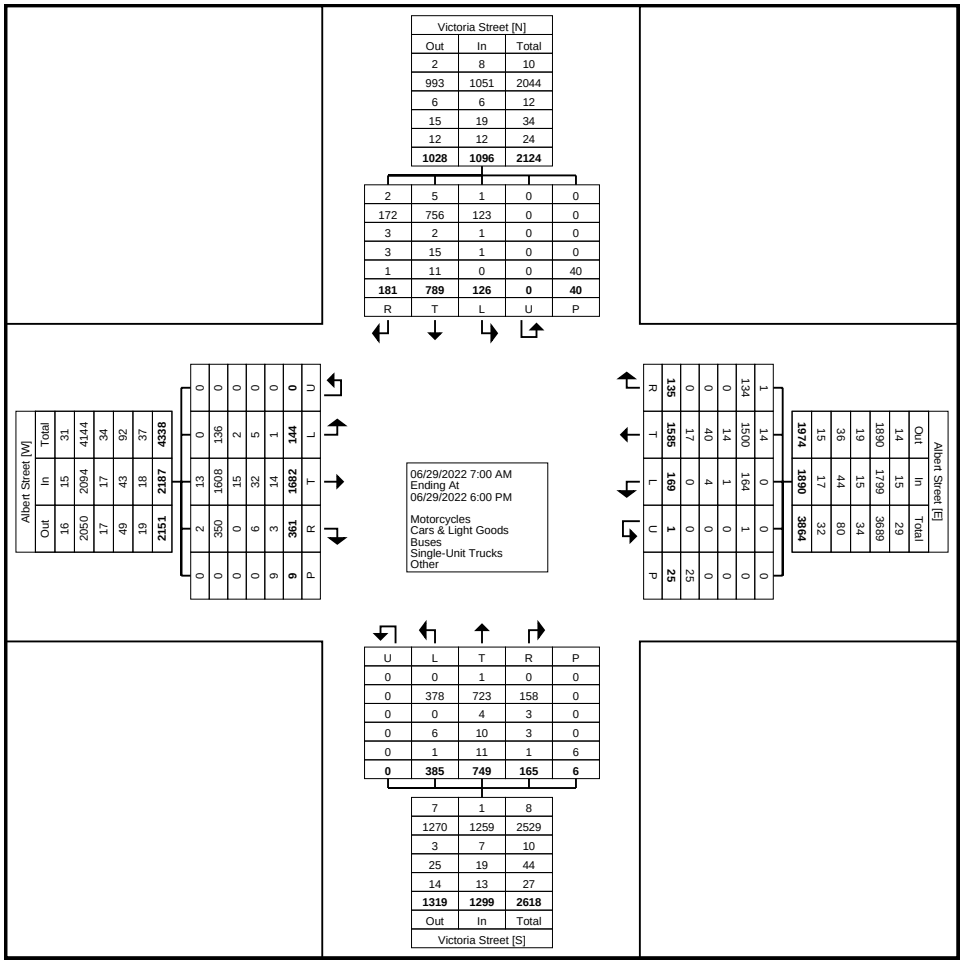
Start Time	Albert Street Eastbound						Albert Street Westbound						Victoria Street Northbound						Victoria Street Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	1	23	3	0	0	27	1	20	2	0	0	23	8	15	2	0	0	25	1	15	0	0	0	16	91
7:15 AM	2	37	9	0	0	48	2	25	4	0	0	31	7	27	3	0	0	37	0	14	4	0	1	18	134
7:30 AM	3	50	4	0	0	57	5	46	0	0	0	51	13	25	6	0	0	44	1	6	9	0	0	16	168
7:45 AM	4	46	3	0	0	53	0	46	3	0	0	49	10	35	7	0	0	52	2	13	2	0	0	17	171
Hourly Total	10	156	19	0	0	185	8	137	9	0	0	154	38	102	18	0	0	158	4	48	15	0	1	67	564
8:00 AM	3	50	9	0	1	62	2	46	1	0	0	49	9	22	5	0	1	36	5	17	1	0	0	23	170
8:15 AM	3	50	14	0	0	67	1	36	2	0	0	39	11	14	6	0	0	31	4	20	2	0	1	26	163
8:30 AM	7	57	15	0	0	79	5	42	5	0	0	52	11	16	3	0	0	30	2	18	3	0	0	23	184
8:45 AM	10	46	18	0	0	74	5	62	2	0	0	69	16	30	7	0	0	53	4	28	6	0	0	38	234
Hourly Total	23	203	56	0	1	282	13	186	10	0	0	209	47	82	21	0	1	150	15	83	12	0	1	110	751
9:00 AM	0	56	12	0	0	68	2	41	0	0	0	43	17	23	4	0	0	44	1	13	5	0	1	19	174
9:15 AM	6	43	3	0	0	52	0	47	2	0	0	49	6	16	2	0	0	24	5	10	5	0	0	20	145
9:30 AM	3	38	6	0	0	47	5	35	5	0	0	45	9	12	7	0	0	28	1	7	5	0	0	13	133
9:45 AM	2	60	7	0	0	69	5	39	1	0	3	45	8	20	8	0	0	36	2	22	3	0	1	27	177
Hourly Total	11	197	28	0	0	236	12	162	8	0	3	182	40	71	21	0	0	132	9	52	18	0	2	79	629
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:30 AM	8	60	7	0	0	75	7	46	1	0	3	54	10	24	1	0	0	35	4	23	6	0	2	33	197
11:45 AM	2	50	14	0	0	66	10	47	2	0	0	59	15	22	7	0	0	44	4	23	8	0	1	35	204
Hourly Total	10	110	21	0	0	141	17	93	3	0	3	113	25	46	8	0	0	79	8	46	14	0	3	68	401
12:00 PM	3	51	19	0	1	73	3	54	5	0	1	62	11	15	5	0	1	31	4	22	9	0	4	35	201
12:15 PM	6	55	5	0	1	66	6	47	4	0	1	57	13	21	3	0	1	37	5	15	11	0	1	31	191
12:30 PM	4	57	15	0	1	76	6	49	8	0	1	63	12	21	10	0	1	43	1	21	1	0	2	23	205
12:45 PM	4	53	9	0	0	66	7	39	5	0	4	51	17	30	5	0	0	52	7	22	6	0	5	35	204
Hourly Total	17	216	48	0	3	281	22	189	22	0	7	233	53	87	23	0	3	163	17	80	27	0	12	124	801
1:00 PM	3	54	6	0	0	63	7	50	2	0	0	59	13	22	6	0	0	41	7	21	4	0	2	32	195
1:15 PM	5	66	5	0	0	76	6	62	5	0	0	73	8	24	6	0	0	38	7	20	5	0	5	32	219
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	8	120	11	0	0	139	13	112	7	0	0	132	21	46	12	0	0	79	14	41	9	0	7	64	414
3:00 PM	8	63	20	0	1	91	5	66	5	0	0	76	12	16	7	0	0	35	0	26	10	0	1	36	238
3:15 PM	7	44	21	0	0	72	9	45	12	0	0	66	9	20	3	0	1	32	6	38	7	0	1	51	221
3:30 PM	1	41	14	0	1	56	5	57	8	0	0	70	15	40	11	0	1	66	7	40	8	0	0	55	247
3:45 PM	2	53	22	0	0	77	6	65	9	0	0	80	16	32	4	0	0	52	7	40	6	0	0	53	262
Hourly Total	18	201	77	0	2	296	25	233	34	0	0	292	52	108	25	0	2	185	20	144	31	0	2	195	968
4:00 PM	5	78	15	0	1	98	7	50	4	1	4	62	12	25	7	0	0	44	9	40	6	0	4	55	259
4:15 PM	8	55	16	0	0	79	4	60	3	0	0	67	22	20	4	0	0	46	4	39	5	0	2	48	240

4:30 PM	8	60	13	0	0	81	10	78	8	0	0	96	15	37	5	0	0	57	4	34	5	0	1	43	277
4:45 PM	7	48	13	0	0	68	11	66	7	0	0	84	8	29	6	0	0	43	3	28	11	0	2	42	237
Hourly Total	28	241	57	0	1	326	32	254	22	1	4	309	57	111	22	0	0	190	20	141	27	0	9	188	1013
5:00 PM	5	69	11	0	1	85	8	65	4	0	1	77	15	25	8	0	0	48	2	54	8	0	1	64	274
5:15 PM	5	58	11	0	0	74	5	61	6	0	0	72	13	27	3	0	0	43	7	38	7	0	0	52	241
5:30 PM	6	56	9	0	0	71	6	50	4	0	6	60	10	22	2	0	0	34	6	31	8	0	0	45	210
5:45 PM	3	55	13	0	1	71	8	43	6	0	1	57	14	22	2	0	0	38	4	31	5	0	2	40	206
Hourly Total	19	238	44	0	2	301	27	219	20	0	8	266	52	96	15	0	0	163	19	154	28	0	3	201	931
Grand Total	144	1682	361	0	9	2187	169	1585	135	1	25	1890	385	749	165	0	6	1299	126	789	181	0	40	1096	6472
Approach %	6.6	76.9	16.5	0.0	-	-	8.9	83.9	7.1	0.1	-	-	29.6	57.7	12.7	0.0	-	-	11.5	72.0	16.5	0.0	-	-	-
Total %	2.2	26.0	5.6	0.0	-	33.8	2.6	24.5	2.1	0.0	-	29.2	5.9	11.6	2.5	0.0	-	20.1	1.9	12.2	2.8	0.0	-	16.9	-
Motorcycles	0	13	2	0	-	15	0	14	1	0	-	15	0	1	0	0	-	1	1	5	2	0	-	8	39
% Motorcycles	0.0	0.8	0.6	-	-	0.7	0.0	0.9	0.7	0.0	-	0.8	0.0	0.1	0.0	-	-	0.1	0.8	0.6	1.1	-	-	0.7	0.6
Cars & Light Goods	136	1608	350	0	-	2094	164	1500	134	1	-	1799	378	723	158	0	-	1259	123	756	172	0	-	1051	6203
% Cars & Light Goods	94.4	95.6	97.0	-	-	95.7	97.0	94.6	99.3	100.0	-	95.2	98.2	96.5	95.8	-	-	96.9	97.6	95.8	95.0	-	-	95.9	95.8
Buses	2	15	0	0	-	17	1	14	0	0	-	15	0	4	3	0	-	7	1	2	3	0	-	6	45
% Buses	1.4	0.9	0.0	-	-	0.8	0.6	0.9	0.0	0.0	-	0.8	0.0	0.5	1.8	-	-	0.5	0.8	0.3	1.7	-	-	0.5	0.7
Single-Unit Trucks	5	32	6	0	-	43	4	40	0	0	-	44	6	10	3	0	-	19	1	15	3	0	-	19	125
% Single-Unit Trucks	3.5	1.9	1.7	-	-	2.0	2.4	2.5	0.0	0.0	-	2.3	1.6	1.3	1.8	-	-	1.5	0.8	1.9	1.7	-	-	1.7	1.9
Articulated Trucks	1	9	0	0	-	10	0	11	0	0	-	11	0	9	0	0	-	9	0	9	1	0	-	10	40
% Articulated Trucks	0.7	0.5	0.0	-	-	0.5	0.0	0.7	0.0	0.0	-	0.6	0.0	1.2	0.0	-	-	0.7	0.0	1.1	0.6	-	-	0.9	0.6
Bicycles on Road	0	5	3	0	-	8	0	6	0	0	-	6	1	2	1	0	-	4	0	2	0	0	-	2	20
% Bicycles on Road	0.0	0.3	0.8	-	-	0.4	0.0	0.4	0.0	0.0	-	0.3	0.3	0.3	0.6	-	-	0.3	0.0	0.3	0.0	-	-	0.2	0.3
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	1	-	-	-	-	-	8	-	-
% Bicycles on Crosswalk	-	-	-	-	11.1	-	-	-	-	-	16.0	-	-	-	-	-	16.7	-	-	-	-	-	20.0	-	-
Pedestrians	-	-	-	-	8	-	-	-	-	-	21	-	-	-	-	-	5	-	-	-	-	-	32	-	-
% Pedestrians	-	-	-	-	88.9	-	-	-	-	-	84.0	-	-	-	-	-	83.3	-	-	-	-	-	80.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Albert Street & Victoria Street
Site Code: 220331
Start Date: 06/29/2022



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Albert Street & Victoria Street
Site Code: 220331
Start Date: 06/29/2022

Turning Movement Peak Hour Data (8:15 AM)

Start Time	Albert Street Eastbound						Albert Street Westbound						Victoria Street Northbound						Victoria Street Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
8:15 AM	3	50	14	0	0	67	1	36	2	0	0	39	11	14	6	0	0	31	4	20	2	0	1	26	163
8:30 AM	7	57	15	0	0	79	5	42	5	0	0	52	11	16	3	0	0	30	2	18	3	0	0	23	184
8:45 AM	10	46	18	0	0	74	5	62	2	0	0	69	16	30	7	0	0	53	4	28	6	0	0	38	234
9:00 AM	0	56	12	0	0	68	2	41	0	0	0	43	17	23	4	0	0	44	1	13	5	0	1	19	174
Total	20	209	59	0	0	288	13	181	9	0	0	203	55	83	20	0	0	158	11	79	16	0	2	106	755
Approach %	6.9	72.6	20.5	0.0	-	-	6.4	89.2	4.4	0.0	-	-	34.8	52.5	12.7	0.0	-	-	10.4	74.5	15.1	0.0	-	-	-
Total %	2.6	27.7	7.8	0.0	-	38.1	1.7	24.0	1.2	0.0	-	26.9	7.3	11.0	2.6	0.0	-	20.9	1.5	10.5	2.1	0.0	-	14.0	-
PHF	0.500	0.917	0.819	0.000	-	0.911	0.650	0.730	0.450	0.000	-	0.736	0.809	0.692	0.714	0.000	-	0.745	0.688	0.705	0.667	0.000	-	0.697	0.807
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	17	196	59	0	-	272	10	170	9	0	-	189	54	81	20	0	-	155	10	72	14	0	-	96	712
% Cars & Light Goods	85.0	93.8	100.0	-	-	94.4	76.9	93.9	100.0	-	-	93.1	98.2	97.6	100.0	-	-	98.1	90.9	91.1	87.5	-	-	90.6	94.3
Buses	2	7	0	0	-	9	1	4	0	0	-	5	0	0	0	0	-	0	0	1	1	0	-	2	16
% Buses	10.0	3.3	0.0	-	-	3.1	7.7	2.2	0.0	-	-	2.5	0.0	0.0	0.0	-	-	0.0	0.0	1.3	6.3	-	-	1.9	2.1
Single-Unit Trucks	1	5	0	0	-	6	2	7	0	0	-	9	1	0	0	0	-	1	1	2	0	0	-	3	19
% Single-Unit Trucks	5.0	2.4	0.0	-	-	2.1	15.4	3.9	0.0	-	-	4.4	1.8	0.0	0.0	-	-	0.6	9.1	2.5	0.0	-	-	2.8	2.5
Articulated Trucks	0	1	0	0	-	1	0	0	0	0	-	0	0	2	0	0	-	2	0	3	1	0	-	4	7
% Articulated Trucks	0.0	0.5	0.0	-	-	0.3	0.0	0.0	0.0	-	-	0.0	0.0	2.4	0.0	-	-	1.3	0.0	3.8	6.3	-	-	3.8	0.9
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	1
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	1.3	0.0	-	-	0.9	0.1
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
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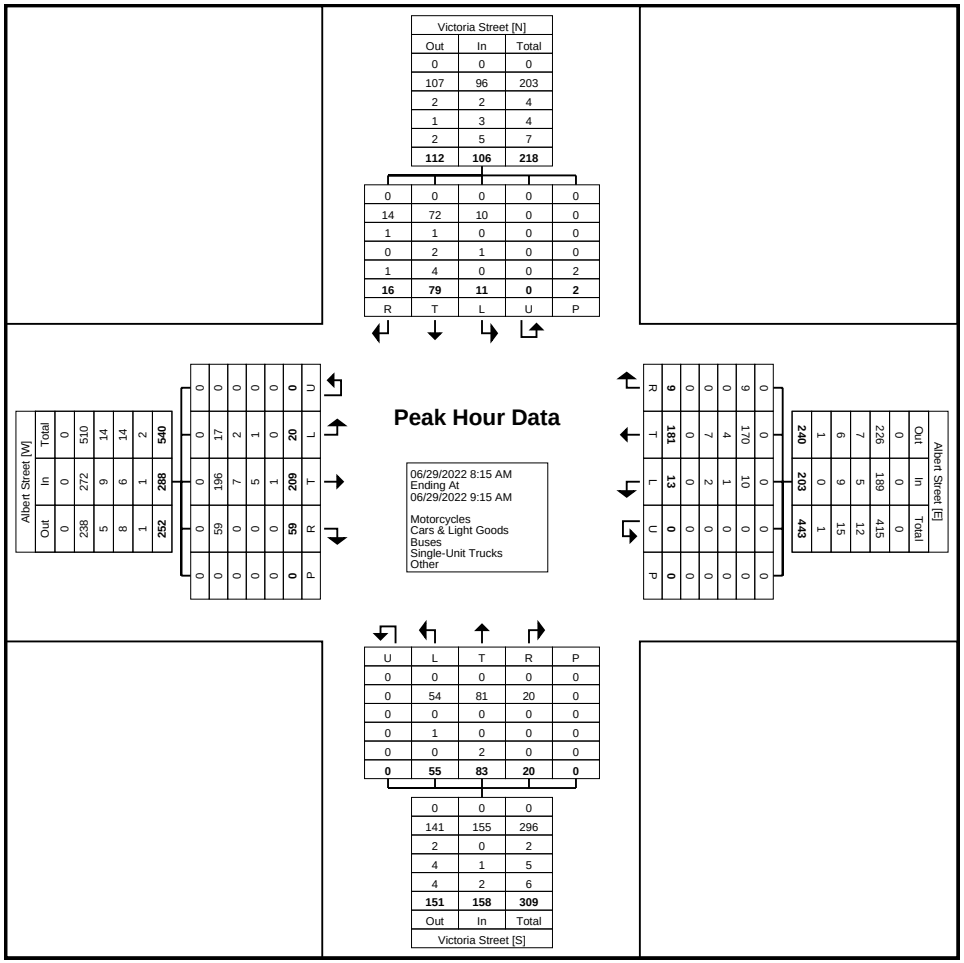
Count Name: Albert Street & Victoria Street
Site Code: 220331
Start Date: 06/29/2022



Turning Movement Peak Hour Data Plot (8:15 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Albert Street & Victoria Street
Site Code: 220331
Start Date: 06/29/2022

Turning Movement Peak Hour Data (12:30 PM)

Start Time	Albert Street Eastbound						Albert Street Westbound						Victoria Street Northbound						Victoria Street Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
12:30 PM	4	57	15	0	1	76	6	49	8	0	1	63	12	21	10	0	1	43	1	21	1	0	2	23	205
12:45 PM	4	53	9	0	0	66	7	39	5	0	4	51	17	30	5	0	0	52	7	22	6	0	5	35	204
1:00 PM	3	54	6	0	0	63	7	50	2	0	0	59	13	22	6	0	0	41	7	21	4	0	2	32	195
1:15 PM	5	66	5	0	0	76	6	62	5	0	0	73	8	24	6	0	0	38	7	20	5	0	5	32	219
Total	16	230	35	0	1	281	26	200	20	0	5	246	50	97	27	0	1	174	22	84	16	0	14	122	823
Approach %	5.7	81.9	12.5	0.0	-	-	10.6	81.3	8.1	0.0	-	-	28.7	55.7	15.5	0.0	-	-	18.0	68.9	13.1	0.0	-	-	-
Total %	1.9	27.9	4.3	0.0	-	34.1	3.2	24.3	2.4	0.0	-	29.9	6.1	11.8	3.3	0.0	-	21.1	2.7	10.2	1.9	0.0	-	14.8	-
PHF	0.800	0.871	0.583	0.000	-	0.924	0.929	0.806	0.625	0.000	-	0.842	0.735	0.808	0.675	0.000	-	0.837	0.786	0.955	0.667	0.000	-	0.871	0.939
Motorcycles	0	2	0	0	-	2	0	2	0	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	4
% Motorcycles	0.0	0.9	0.0	-	-	0.7	0.0	1.0	0.0	-	-	0.8	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.5
Cars & Light Goods	13	218	33	0	-	264	25	187	20	0	-	232	49	92	27	0	-	168	22	76	15	0	-	113	777
% Cars & Light Goods	81.3	94.8	94.3	-	-	94.0	96.2	93.5	100.0	-	-	94.3	98.0	94.8	100.0	-	-	96.6	100.0	90.5	93.8	-	-	92.6	94.4
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	1
% Buses	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	1.2	0.0	-	-	0.8	0.1
Single-Unit Trucks	2	5	2	0	-	9	1	8	0	0	-	9	1	2	0	0	-	3	0	4	1	0	-	5	26
% Single-Unit Trucks	12.5	2.2	5.7	-	-	3.2	3.8	4.0	0.0	-	-	3.7	2.0	2.1	0.0	-	-	1.7	0.0	4.8	6.3	-	-	4.1	3.2
Articulated Trucks	1	2	0	0	-	3	0	2	0	0	-	2	0	1	0	0	-	1	0	3	0	0	-	3	9
% Articulated Trucks	6.3	0.9	0.0	-	-	1.1	0.0	1.0	0.0	-	-	0.8	0.0	1.0	0.0	-	-	0.6	0.0	3.6	0.0	-	-	2.5	1.1
Bicycles on Road	0	3	0	0	-	3	0	1	0	0	-	1	0	2	0	0	-	2	0	0	0	0	-	0	6
% Bicycles on Road	0.0	1.3	0.0	-	-	1.1	0.0	0.5	0.0	-	-	0.4	0.0	2.1	0.0	-	-	1.1	0.0	0.0	0.0	-	-	0.0	0.7
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	20.0	-	-	-	-	-	0.0	-	-	-	-	-	14.3	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	1	-	-	-	-	-	12	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	80.0	-	-	-	-	-	100.0	-	-	-	-	-	85.7	-	-

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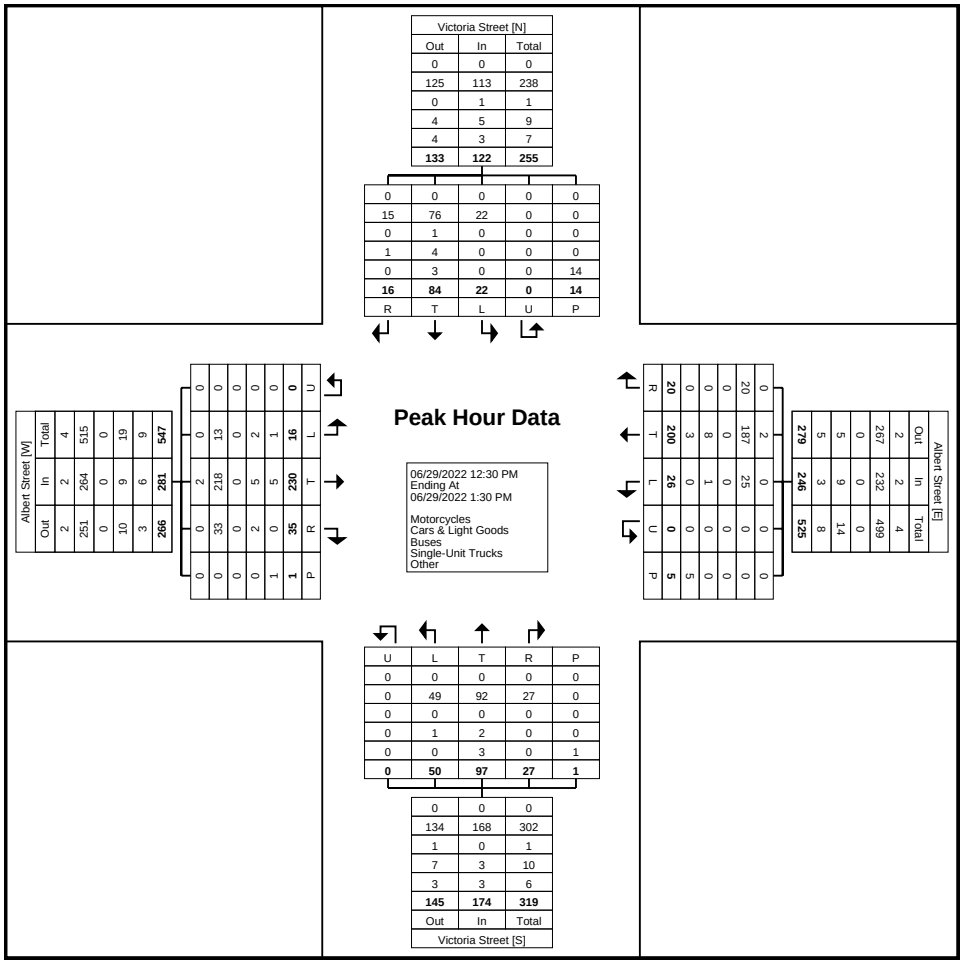
Start Date: 06/29/2022



Turning Movement Peak Hour Data Plot (12:30 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Albert Street & Victoria Street
Site Code: 220331
Start Date: 06/29/2022

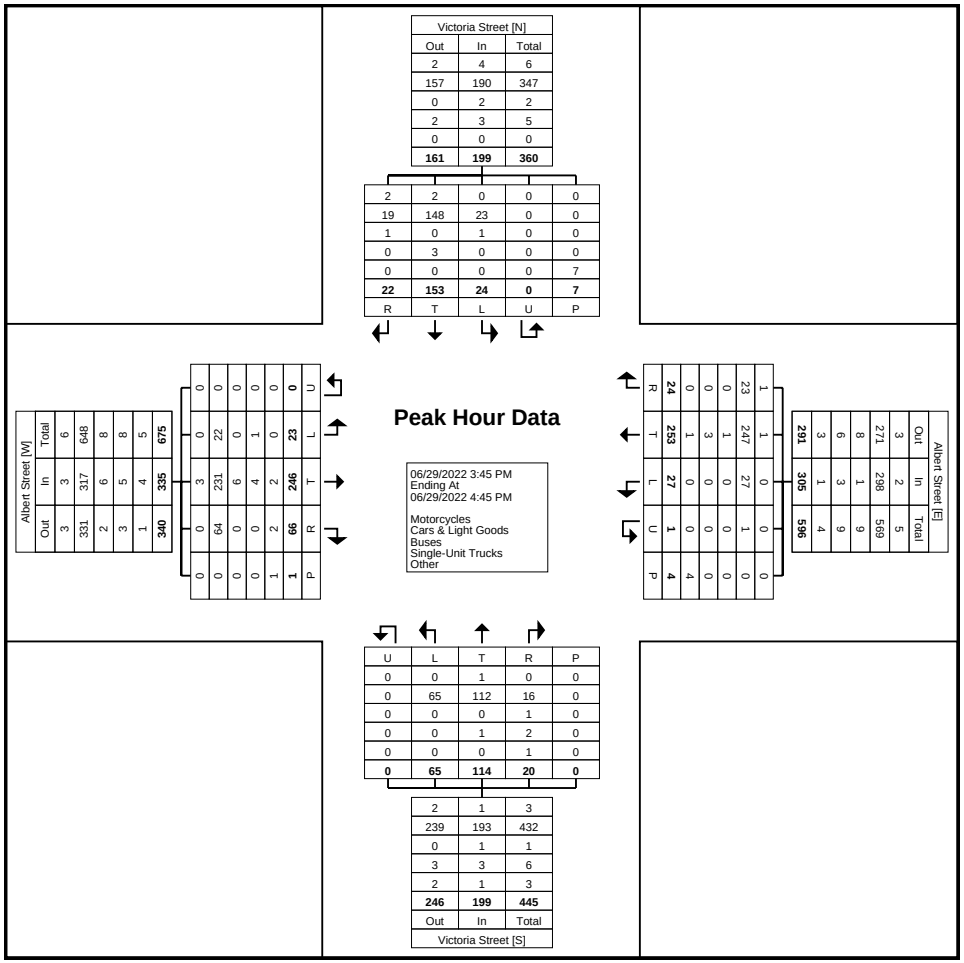
Turning Movement Peak Hour Data (3:45 PM)

Start Time	Albert Street Eastbound						Albert Street Westbound						Victoria Street Northbound						Victoria Street Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
3:45 PM	2	53	22	0	0	77	6	65	9	0	0	80	16	32	4	0	0	52	7	40	6	0	0	53	262
4:00 PM	5	78	15	0	1	98	7	50	4	1	4	62	12	25	7	0	0	44	9	40	6	0	4	55	259
4:15 PM	8	55	16	0	0	79	4	60	3	0	0	67	22	20	4	0	0	46	4	39	5	0	2	48	240
4:30 PM	8	60	13	0	0	81	10	78	8	0	0	96	15	37	5	0	0	57	4	34	5	0	1	43	277
Total	23	246	66	0	1	335	27	253	24	1	4	305	65	114	20	0	0	199	24	153	22	0	7	199	1038
Approach %	6.9	73.4	19.7	0.0	-	-	8.9	83.0	7.9	0.3	-	-	32.7	57.3	10.1	0.0	-	-	12.1	76.9	11.1	0.0	-	-	-
Total %	2.2	23.7	6.4	0.0	-	32.3	2.6	24.4	2.3	0.1	-	29.4	6.3	11.0	1.9	0.0	-	19.2	2.3	14.7	2.1	0.0	-	19.2	-
PHF	0.719	0.788	0.750	0.000	-	0.855	0.675	0.811	0.667	0.250	-	0.794	0.739	0.770	0.714	0.000	-	0.873	0.667	0.956	0.917	0.000	-	0.905	0.937
Motorcycles	0	3	0	0	-	3	0	1	1	0	-	2	0	1	0	0	-	1	0	2	2	0	-	4	10
% Motorcycles	0.0	1.2	0.0	-	-	0.9	0.0	0.4	4.2	0.0	-	0.7	0.0	0.9	0.0	-	-	0.5	0.0	1.3	9.1	-	-	2.0	1.0
Cars & Light Goods	22	231	64	0	-	317	27	247	23	1	-	298	65	112	16	0	-	193	23	148	19	0	-	190	998
% Cars & Light Goods	95.7	93.9	97.0	-	-	94.6	100.0	97.6	95.8	100.0	-	97.7	100.0	98.2	80.0	-	-	97.0	95.8	96.7	86.4	-	-	95.5	96.1
Buses	0	6	0	0	-	6	0	1	0	0	-	1	0	0	1	0	-	1	1	0	1	0	-	2	10
% Buses	0.0	2.4	0.0	-	-	1.8	0.0	0.4	0.0	0.0	-	0.3	0.0	0.0	5.0	-	-	0.5	4.2	0.0	4.5	-	-	1.0	1.0
Single-Unit Trucks	1	4	0	0	-	5	0	3	0	0	-	3	0	1	2	0	-	3	0	3	0	0	-	3	14
% Single-Unit Trucks	4.3	1.6	0.0	-	-	1.5	0.0	1.2	0.0	0.0	-	1.0	0.0	0.9	10.0	-	-	1.5	0.0	2.0	0.0	-	-	1.5	1.3
Articulated Trucks	0	1	0	0	-	1	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Articulated Trucks	0.0	0.4	0.0	-	-	0.3	0.0	0.4	0.0	0.0	-	0.3	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.2
Bicycles on Road	0	1	2	0	-	3	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	4
% Bicycles on Road	0.0	0.4	3.0	-	-	0.9	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	5.0	-	-	0.5	0.0	0.0	0.0	-	-	0.0	0.4
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Bicycles on Crosswalk	-	-	-	-	100.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	28.6	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	0.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	71.4	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Albert Street & Victoria Street
Site Code: 220331
Start Date: 06/29/2022



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

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Metcalfe Street East & Caradoc Street
Site Code: 220331
Start Date: 06/29/2022

Turning Movement Data

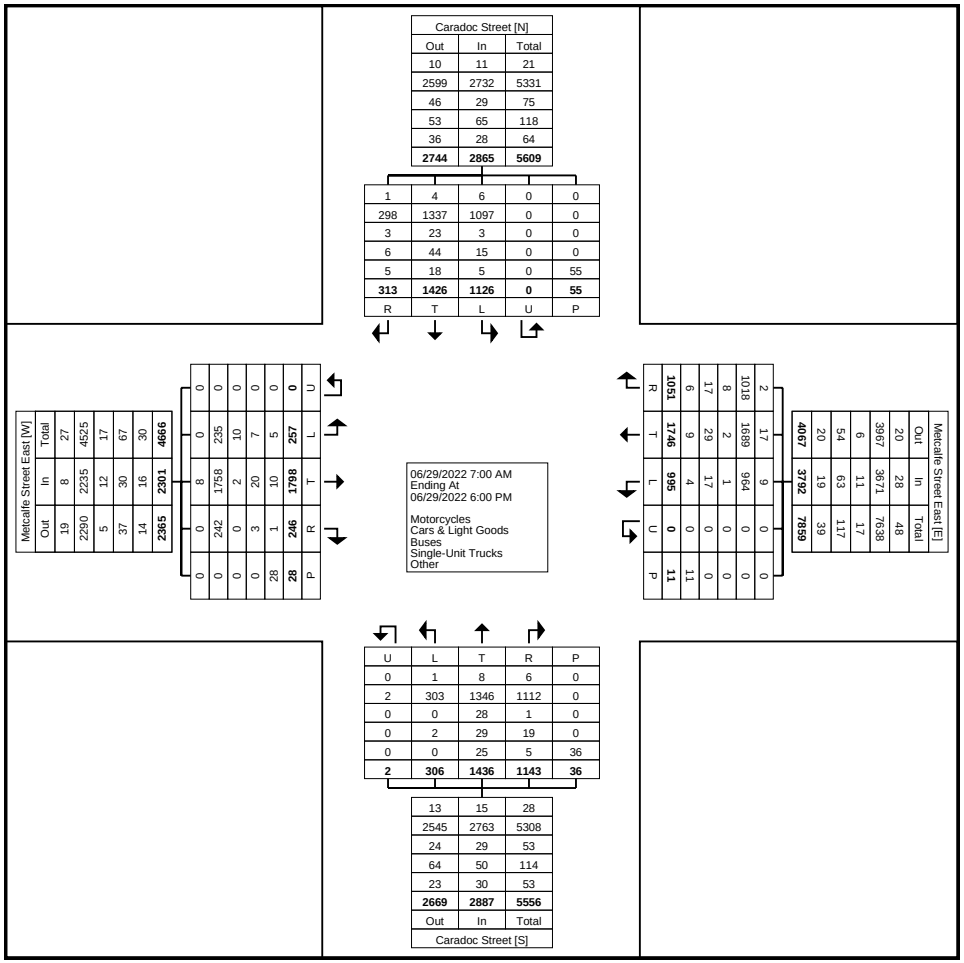
Start Time	Metcalfe Street East Eastbound						Metcalfe Street East Westbound						Caradoc Street Northbound						Caradoc Street Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	7	19	2	0	2	28	7	15	16	0	1	38	6	27	10	0	0	43	18	22	6	0	1	46	155
7:15 AM	10	16	1	0	0	27	14	20	17	0	0	51	9	41	16	0	0	66	15	20	3	0	0	38	182
7:30 AM	3	28	0	0	1	31	15	35	27	0	0	77	5	48	23	0	0	76	14	41	8	0	1	63	247
7:45 AM	8	25	2	0	0	35	23	32	21	0	0	76	3	51	19	0	0	73	24	33	7	0	0	64	248
Hourly Total	28	88	5	0	3	121	59	102	81	0	1	242	23	167	68	0	0	258	71	116	24	0	2	211	832
8:00 AM	3	27	9	0	1	39	19	33	27	0	1	79	6	45	24	0	0	75	21	51	7	0	0	79	272
8:15 AM	4	25	4	0	0	33	30	24	35	0	0	89	9	42	30	0	1	81	28	28	9	0	1	65	268
8:30 AM	9	30	7	0	0	46	22	23	35	0	0	80	9	43	27	0	2	79	32	35	12	0	1	79	284
8:45 AM	7	35	4	0	0	46	31	43	27	0	0	101	11	42	31	0	4	84	45	59	18	0	0	122	353
Hourly Total	23	117	24	0	1	164	102	123	124	0	1	349	35	172	112	0	7	319	126	173	46	0	2	345	1177
9:00 AM	9	56	4	0	0	69	22	54	38	0	0	114	8	43	28	0	0	79	39	51	5	0	0	95	357
9:15 AM	5	42	10	0	1	57	28	42	26	0	0	96	13	36	23	0	0	72	27	43	12	0	2	82	307
9:30 AM	5	46	15	0	2	66	28	39	26	0	0	93	10	35	31	0	0	76	25	29	9	0	1	63	298
9:45 AM	7	52	4	0	1	63	15	40	20	0	0	75	13	36	39	1	0	89	29	38	10	0	4	77	304
Hourly Total	26	196	33	0	4	255	93	175	110	0	0	378	44	150	121	1	0	316	120	161	36	0	7	317	1266
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:30 AM	3	67	7	0	0	77	25	75	36	0	0	136	10	41	47	0	3	98	37	31	5	0	0	73	384
11:45 AM	5	79	7	0	0	91	37	78	40	0	1	155	13	45	40	0	0	98	35	36	12	0	2	83	427
Hourly Total	8	146	14	0	0	168	62	153	76	0	1	291	23	86	87	0	3	196	72	67	17	0	2	156	811
12:00 PM	7	72	6	0	0	85	32	68	29	0	3	129	6	41	47	0	2	94	42	46	9	0	1	97	405
12:15 PM	10	66	4	0	0	80	31	70	25	0	0	126	5	42	46	0	0	93	48	39	5	0	3	92	391
12:30 PM	8	56	6	0	2	70	30	62	33	0	0	125	17	48	40	0	2	105	41	30	9	0	1	80	380
12:45 PM	9	68	7	0	2	84	52	76	46	0	0	174	13	41	50	0	2	104	37	33	8	0	4	78	440
Hourly Total	34	262	23	0	4	319	145	276	133	0	3	554	41	172	183	0	6	396	168	148	31	0	9	347	1616
1:00 PM	6	51	14	0	1	71	25	56	43	0	1	124	3	46	41	0	1	90	27	39	5	0	4	71	356
1:15 PM	6	78	6	0	0	90	38	71	30	0	1	139	7	34	48	0	1	89	48	43	4	0	6	95	413
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	12	129	20	0	1	161	63	127	73	0	2	263	10	80	89	0	2	179	75	82	9	0	10	166	769
3:00 PM	7	86	17	0	1	110	47	80	48	0	0	175	12	51	49	0	2	112	32	56	13	0	1	101	498
3:15 PM	14	80	11	0	1	105	38	56	33	0	0	127	6	41	26	0	0	73	43	50	15	0	1	108	413
3:30 PM	10	64	5	0	1	79	28	66	29	0	0	123	10	50	34	0	2	94	40	61	18	0	4	119	415
3:45 PM	13	78	7	0	0	98	49	84	31	0	1	164	9	47	40	0	2	96	56	55	16	0	0	127	485
Hourly Total	44	308	40	0	3	392	162	286	141	0	1	589	37	189	149	0	6	375	171	222	62	0	6	455	1811
4:00 PM	10	77	10	0	4	97	32	58	31	0	0	121	6	51	53	0	0	110	34	52	12	0	5	98	426
4:15 PM	10	61	13	0	3	84	47	63	48	0	0	158	17	48	32	0	0	97	53	56	13	0	1	122	461

4:30 PM	13	72	12	0	1	97	48	65	27	0	0	140	7	58	51	1	0	117	36	80	7	0	2	123	477
4:45 PM	15	72	7	0	0	94	31	77	34	0	1	142	8	67	37	0	3	112	46	49	8	0	2	103	451
Hourly Total	48	282	42	0	8	372	158	263	140	0	1	561	38	224	173	1	3	436	169	237	40	0	10	446	1815
5:00 PM	16	82	16	0	3	114	37	68	49	0	1	154	17	50	50	0	4	117	44	70	13	0	6	127	512
5:15 PM	11	82	10	0	0	103	39	55	48	0	0	142	13	46	39	0	1	98	35	52	9	0	0	96	439
5:30 PM	5	60	10	0	1	75	39	56	43	0	0	138	14	59	43	0	2	116	40	63	9	0	0	112	441
5:45 PM	2	46	9	0	0	57	36	62	33	0	0	131	11	41	29	0	2	81	35	35	17	0	1	87	356
Hourly Total	34	270	45	0	4	349	151	241	173	0	1	565	55	196	161	0	9	412	154	220	48	0	7	422	1748
Grand Total	257	1798	246	0	28	2301	995	1746	1051	0	11	3792	306	1436	1143	2	36	2887	1126	1426	313	0	55	2865	11845
Approach %	11.2	78.1	10.7	0.0	-	-	26.2	46.0	27.7	0.0	-	-	10.6	49.7	39.6	0.1	-	-	39.3	49.8	10.9	0.0	-	-	-
Total %	2.2	15.2	2.1	0.0	-	19.4	8.4	14.7	8.9	0.0	-	32.0	2.6	12.1	9.6	0.0	-	24.4	9.5	12.0	2.6	0.0	-	24.2	-
Motorcycles	0	8	0	0	-	8	9	17	2	0	-	28	1	8	6	0	-	15	6	4	1	0	-	11	62
% Motorcycles	0.0	0.4	0.0	-	-	0.3	0.9	1.0	0.2	-	-	0.7	0.3	0.6	0.5	0.0	-	0.5	0.5	0.3	0.3	-	-	0.4	0.5
Cars & Light Goods	235	1758	242	0	-	2235	964	1689	1018	0	-	3671	303	1346	1112	2	-	2763	1097	1337	298	0	-	2732	11401
% Cars & Light Goods	91.4	97.8	98.4	-	-	97.1	96.9	96.7	96.9	-	-	96.8	99.0	93.7	97.3	100.0	-	95.7	97.4	93.8	95.2	-	-	95.4	96.3
Buses	10	2	0	0	-	12	1	2	8	0	-	11	0	28	1	0	-	29	3	23	3	0	-	29	81
% Buses	3.9	0.1	0.0	-	-	0.5	0.1	0.1	0.8	-	-	0.3	0.0	1.9	0.1	0.0	-	1.0	0.3	1.6	1.0	-	-	1.0	0.7
Single-Unit Trucks	7	20	3	0	-	30	17	29	17	0	-	63	2	29	19	0	-	50	15	44	6	0	-	65	208
% Single-Unit Trucks	2.7	1.1	1.2	-	-	1.3	1.7	1.7	1.6	-	-	1.7	0.7	2.0	1.7	0.0	-	1.7	1.3	3.1	1.9	-	-	2.3	1.8
Articulated Trucks	5	9	1	0	-	15	3	7	4	0	-	14	0	24	3	0	-	27	5	16	4	0	-	25	81
% Articulated Trucks	1.9	0.5	0.4	-	-	0.7	0.3	0.4	0.4	-	-	0.4	0.0	1.7	0.3	0.0	-	0.9	0.4	1.1	1.3	-	-	0.9	0.7
Bicycles on Road	0	1	0	0	-	1	1	2	2	0	-	5	0	1	2	0	-	3	0	2	1	0	-	3	12
% Bicycles on Road	0.0	0.1	0.0	-	-	0.0	0.1	0.1	0.2	-	-	0.1	0.0	0.1	0.2	0.0	-	0.1	0.0	0.1	0.3	-	-	0.1	0.1
Bicycles on Crosswalk	-	-	-	-	8	-	-	-	-	-	4	-	-	-	-	-	9	-	-	-	-	-	11	-	-
% Bicycles on Crosswalk	-	-	-	-	28.6	-	-	-	-	-	36.4	-	-	-	-	-	25.0	-	-	-	-	-	20.0	-	-
Pedestrians	-	-	-	-	20	-	-	-	-	-	7	-	-	-	-	-	27	-	-	-	-	-	44	-	-
% Pedestrians	-	-	-	-	71.4	-	-	-	-	-	63.6	-	-	-	-	-	75.0	-	-	-	-	-	80.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Metcalfe Street East & Caradoc Street
Site Code: 220331
Start Date: 06/29/2022



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Metcalfe Street East & Caradoc Street
Site Code: 220331
Start Date: 06/29/2022

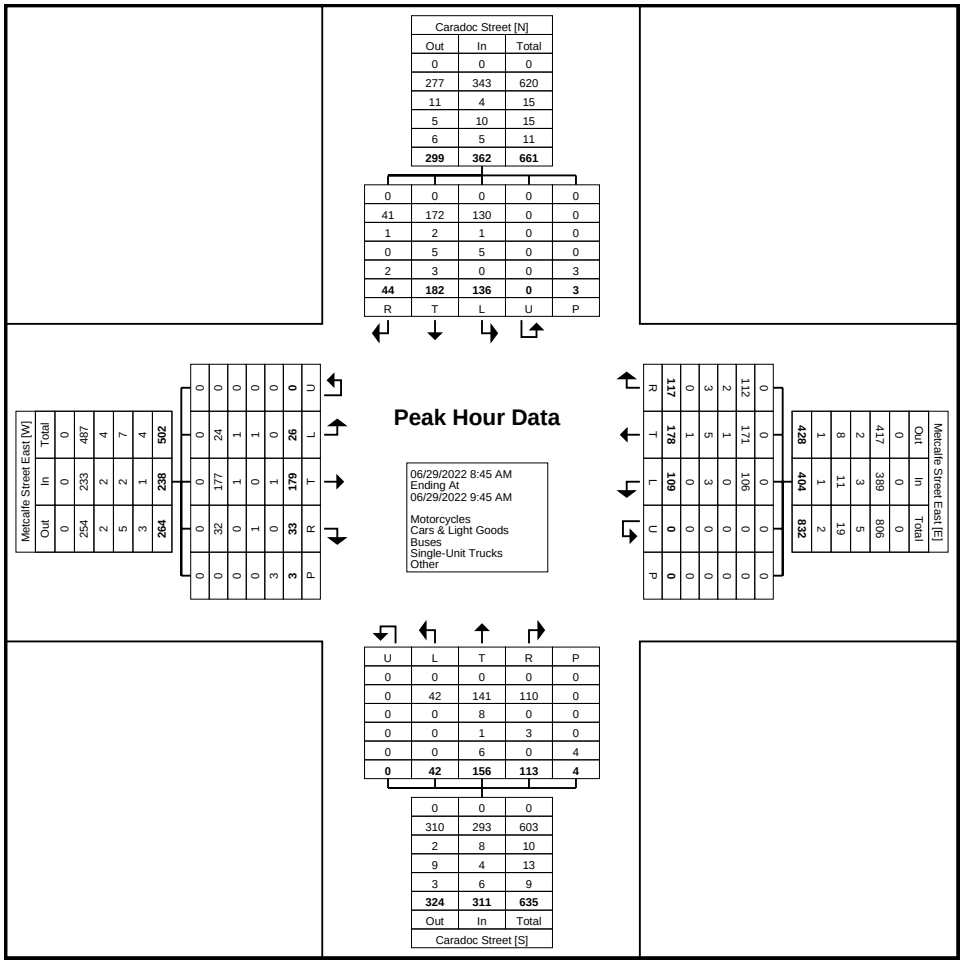
Turning Movement Peak Hour Data (8:45 AM)

Start Time	Metcalfe Street East Eastbound						Metcalfe Street East Westbound						Caradoc Street Northbound						Caradoc Street Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
8:45 AM	7	35	4	0	0	46	31	43	27	0	0	101	11	42	31	0	4	84	45	59	18	0	0	122	353
9:00 AM	9	56	4	0	0	69	22	54	38	0	0	114	8	43	28	0	0	79	39	51	5	0	0	95	357
9:15 AM	5	42	10	0	1	57	28	42	26	0	0	96	13	36	23	0	0	72	27	43	12	0	2	82	307
9:30 AM	5	46	15	0	2	66	28	39	26	0	0	93	10	35	31	0	0	76	25	29	9	0	1	63	298
Total	26	179	33	0	3	238	109	178	117	0	0	404	42	156	113	0	4	311	136	182	44	0	3	362	1315
Approach %	10.9	75.2	13.9	0.0	-	-	27.0	44.1	29.0	0.0	-	-	13.5	50.2	36.3	0.0	-	-	37.6	50.3	12.2	0.0	-	-	-
Total %	2.0	13.6	2.5	0.0	-	18.1	8.3	13.5	8.9	0.0	-	30.7	3.2	11.9	8.6	0.0	-	23.7	10.3	13.8	3.3	0.0	-	27.5	-
PHF	0.722	0.799	0.550	0.000	-	0.862	0.879	0.824	0.770	0.000	-	0.886	0.808	0.907	0.911	0.000	-	0.926	0.756	0.771	0.611	0.000	-	0.742	0.921
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	24	177	32	0	-	233	106	171	112	0	-	389	42	141	110	0	-	293	130	172	41	0	-	343	1258
% Cars & Light Goods	92.3	98.9	97.0	-	-	97.9	97.2	96.1	95.7	-	-	96.3	100.0	90.4	97.3	-	-	94.2	95.6	94.5	93.2	-	-	94.8	95.7
Buses	1	1	0	0	-	2	0	1	2	0	-	3	0	8	0	0	-	8	1	2	1	0	-	4	17
% Buses	3.8	0.6	0.0	-	-	0.8	0.0	0.6	1.7	-	-	0.7	0.0	5.1	0.0	-	-	2.6	0.7	1.1	2.3	-	-	1.1	1.3
Single-Unit Trucks	1	0	1	0	-	2	3	5	3	0	-	11	0	1	3	0	-	4	5	5	0	0	-	10	27
% Single-Unit Trucks	3.8	0.0	3.0	-	-	0.8	2.8	2.8	2.6	-	-	2.7	0.0	0.6	2.7	-	-	1.3	3.7	2.7	0.0	-	-	2.8	2.1
Articulated Trucks	0	1	0	0	-	1	0	1	0	0	-	1	0	6	0	0	-	6	0	3	1	0	-	4	12
% Articulated Trucks	0.0	0.6	0.0	-	-	0.4	0.0	0.6	0.0	-	-	0.2	0.0	3.8	0.0	-	-	1.9	0.0	1.6	2.3	-	-	1.1	0.9
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	2.3	-	-	0.3	0.1
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	33.3	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	66.7	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Metcalfe Street East & Caradoc Street
Site Code: 220331
Start Date: 06/29/2022



Turning Movement Peak Hour Data Plot (8:45 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Metcalfe Street East & Caradoc Street
Site Code: 220331
Start Date: 06/29/2022

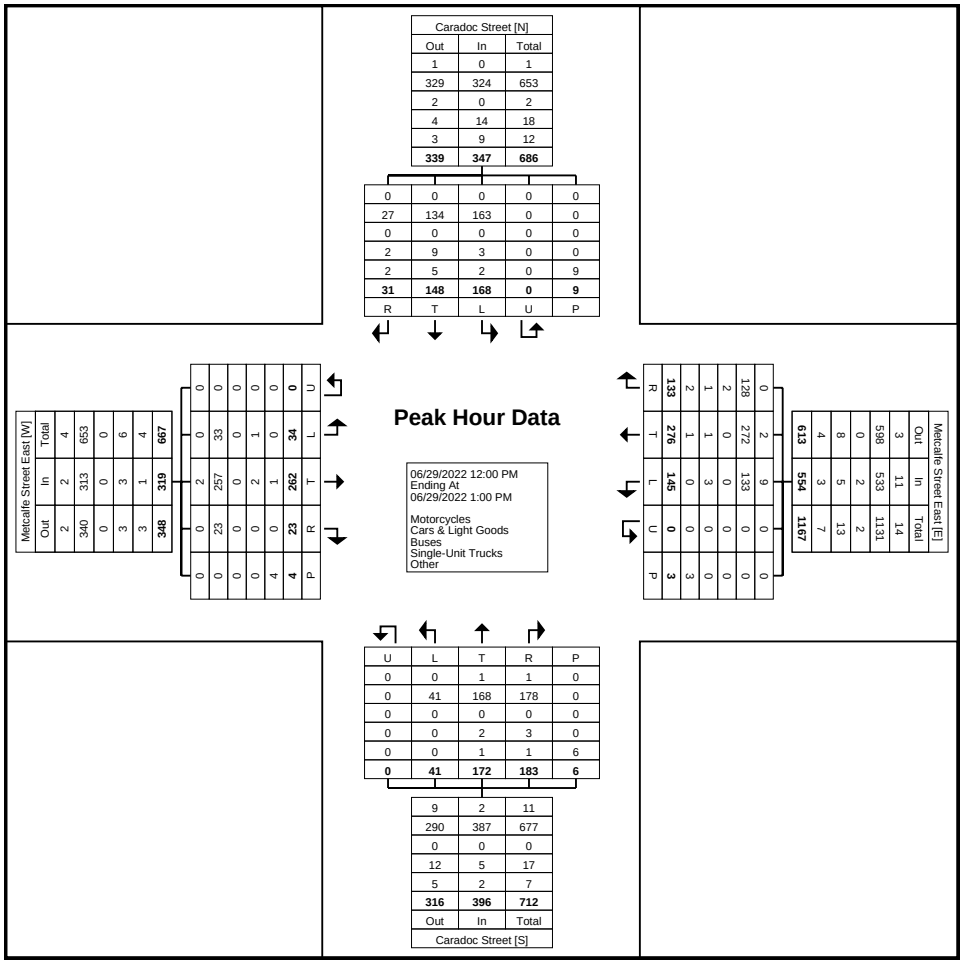
Turning Movement Peak Hour Data (12:00 PM)

Start Time	Metcalfe Street East Eastbound						Metcalfe Street East Westbound						Caradoc Street Northbound						Caradoc Street Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
12:00 PM	7	72	6	0	0	85	32	68	29	0	3	129	6	41	47	0	2	94	42	46	9	0	1	97	405
12:15 PM	10	66	4	0	0	80	31	70	25	0	0	126	5	42	46	0	0	93	48	39	5	0	3	92	391
12:30 PM	8	56	6	0	2	70	30	62	33	0	0	125	17	48	40	0	2	105	41	30	9	0	1	80	380
12:45 PM	9	68	7	0	2	84	52	76	46	0	0	174	13	41	50	0	2	104	37	33	8	0	4	78	440
Total	34	262	23	0	4	319	145	276	133	0	3	554	41	172	183	0	6	396	168	148	31	0	9	347	1616
Approach %	10.7	82.1	7.2	0.0	-	-	26.2	49.8	24.0	0.0	-	-	10.4	43.4	46.2	0.0	-	-	48.4	42.7	8.9	0.0	-	-	-
Total %	2.1	16.2	1.4	0.0	-	19.7	9.0	17.1	8.2	0.0	-	34.3	2.5	10.6	11.3	0.0	-	24.5	10.4	9.2	1.9	0.0	-	21.5	-
PHF	0.850	0.910	0.821	0.000	-	0.938	0.697	0.908	0.723	0.000	-	0.796	0.603	0.896	0.915	0.000	-	0.943	0.875	0.804	0.861	0.000	-	0.894	0.918
Motorcycles	0	2	0	0	-	2	9	2	0	0	-	11	0	1	1	0	-	2	0	0	0	0	-	0	15
% Motorcycles	0.0	0.8	0.0	-	-	0.6	6.2	0.7	0.0	-	-	2.0	0.0	0.6	0.5	-	-	0.5	0.0	0.0	0.0	-	-	0.0	0.9
Cars & Light Goods	33	257	23	0	-	313	133	272	128	0	-	533	41	168	178	0	-	387	163	134	27	0	-	324	1557
% Cars & Light Goods	97.1	98.1	100.0	-	-	98.1	91.7	98.6	96.2	-	-	96.2	100.0	97.7	97.3	-	-	97.7	97.0	90.5	87.1	-	-	93.4	96.3
Buses	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	2
% Buses	0.0	0.0	0.0	-	-	0.0	0.0	0.0	1.5	-	-	0.4	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.1
Single-Unit Trucks	1	2	0	0	-	3	3	1	1	0	-	5	0	2	3	0	-	5	3	9	2	0	-	14	27
% Single-Unit Trucks	2.9	0.8	0.0	-	-	0.9	2.1	0.4	0.8	-	-	0.9	0.0	1.2	1.6	-	-	1.3	1.8	6.1	6.5	-	-	4.0	1.7
Articulated Trucks	0	1	0	0	-	1	0	1	1	0	-	2	0	1	1	0	-	2	2	5	2	0	-	9	14
% Articulated Trucks	0.0	0.4	0.0	-	-	0.3	0.0	0.4	0.8	-	-	0.4	0.0	0.6	0.5	-	-	0.5	1.2	3.4	6.5	-	-	2.6	0.9
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.8	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.1
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	25.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	11.1	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	-	3	-	-	-	-	-	6	-	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	75.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	88.9	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Metcalfe Street East & Caradoc Street
Site Code: 220331
Start Date: 06/29/2022



Turning Movement Peak Hour Data Plot (12:00 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Metcalfe Street East & Caradoc Street
Site Code: 220331
Start Date: 06/29/2022

Turning Movement Peak Hour Data (4:15 PM)

Start Time	Metcalfe Street East Eastbound						Metcalfe Street East Westbound						Caradoc Street Northbound						Caradoc Street Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
4:15 PM	10	61	13	0	3	84	47	63	48	0	0	158	17	48	32	0	0	97	53	56	13	0	1	122	461
4:30 PM	13	72	12	0	1	97	48	65	27	0	0	140	7	58	51	1	0	117	36	80	7	0	2	123	477
4:45 PM	15	72	7	0	0	94	31	77	34	0	1	142	8	67	37	0	3	112	46	49	8	0	2	103	451
5:00 PM	16	82	16	0	3	114	37	68	49	0	1	154	17	50	50	0	4	117	44	70	13	0	6	127	512
Total	54	287	48	0	7	389	163	273	158	0	2	594	49	223	170	1	7	443	179	255	41	0	11	475	1901
Approach %	13.9	73.8	12.3	0.0	-	-	27.4	46.0	26.6	0.0	-	-	11.1	50.3	38.4	0.2	-	-	37.7	53.7	8.6	0.0	-	-	-
Total %	2.8	15.1	2.5	0.0	-	20.5	8.6	14.4	8.3	0.0	-	31.2	2.6	11.7	8.9	0.1	-	23.3	9.4	13.4	2.2	0.0	-	25.0	-
PHF	0.844	0.875	0.750	0.000	-	0.853	0.849	0.886	0.806	0.000	-	0.940	0.721	0.832	0.833	0.250	-	0.947	0.844	0.797	0.788	0.000	-	0.935	0.928
Motorcycles	0	0	0	0	-	0	0	10	2	0	-	12	0	3	4	0	-	7	2	2	0	0	-	4	23
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	3.7	1.3	-	-	2.0	0.0	1.3	2.4	0.0	-	1.6	1.1	0.8	0.0	-	-	0.8	1.2
Cars & Light Goods	46	284	48	0	-	378	159	256	154	0	-	569	48	210	162	1	-	421	175	248	41	0	-	464	1832
% Cars & Light Goods	85.2	99.0	100.0	-	-	97.2	97.5	93.8	97.5	-	-	95.8	98.0	94.2	95.3	100.0	-	95.0	97.8	97.3	100.0	-	-	97.7	96.4
Buses	6	0	0	0	-	6	0	0	0	0	-	0	0	5	0	0	-	5	0	0	0	0	-	0	11
% Buses	11.1	0.0	0.0	-	-	1.5	0.0	0.0	0.0	-	-	0.0	0.0	2.2	0.0	0.0	-	1.1	0.0	0.0	0.0	-	-	0.0	0.6
Single-Unit Trucks	1	3	0	0	-	4	3	4	1	0	-	8	1	3	3	0	-	7	1	3	0	0	-	4	23
% Single-Unit Trucks	1.9	1.0	0.0	-	-	1.0	1.8	1.5	0.6	-	-	1.3	2.0	1.3	1.8	0.0	-	1.6	0.6	1.2	0.0	-	-	0.8	1.2
Articulated Trucks	1	0	0	0	-	1	1	2	1	0	-	4	0	2	0	0	-	2	1	2	0	0	-	3	10
% Articulated Trucks	1.9	0.0	0.0	-	-	0.3	0.6	0.7	0.6	-	-	0.7	0.0	0.9	0.0	0.0	-	0.5	0.6	0.8	0.0	-	-	0.6	0.5
Bicycles on Road	0	0	0	0	-	0	0	1	0	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	2
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.4	0.0	-	-	0.2	0.0	0.0	0.6	0.0	-	0.2	0.0	0.0	0.0	-	-	0.0	0.1
Bicycles on Crosswalk	-	-	-	-	4	-	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	6	-	-
% Bicycles on Crosswalk	-	-	-	-	57.1	-	-	-	-	-	50.0	-	-	-	-	-	42.9	-	-	-	-	-	54.5	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	42.9	-	-	-	-	-	50.0	-	-	-	-	-	57.1	-	-	-	-	-	45.5	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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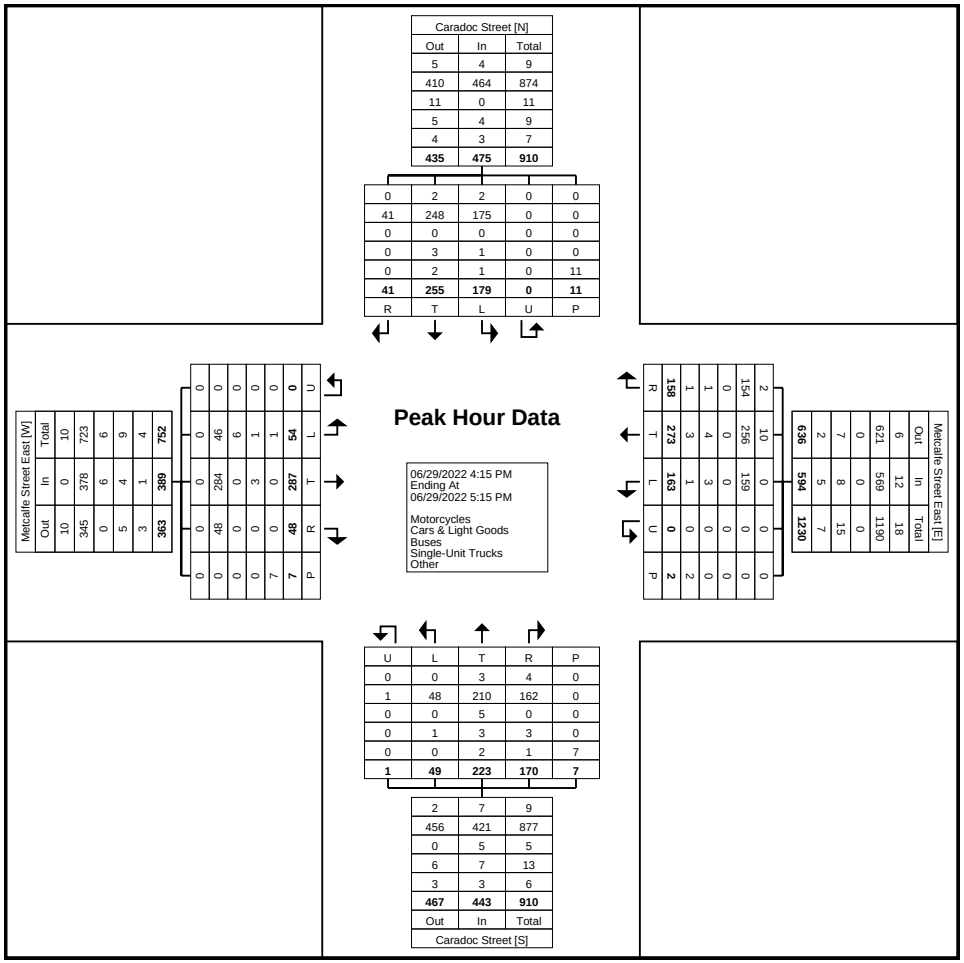
519-896-3163 cbowness@ptsl.com

Count Name: Metcalfe Street East & Caradoc Street
Site Code: 220331
Start Date: 06/29/2022



Turning Movement Peak Hour Data Plot (4:15 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Napperton Drive & Pike Road
Site Code: 220331
Start Date: 06/29/2022

Turning Movement Data

Start Time	Napperton Drive Eastbound						Napperton Drive Westbound						Pike Road Northbound						Pike Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	4	11	0	0	0	15	2	15	5	0	0	22	0	8	6	0	0	14	3	5	1	0	0	9	60
7:15 AM	0	15	0	0	0	15	3	15	4	0	0	22	0	12	5	0	0	17	3	6	2	0	0	11	65
7:30 AM	1	21	1	0	0	23	5	26	2	0	0	33	0	10	6	0	0	16	2	4	3	0	0	9	81
7:45 AM	2	27	0	0	0	29	2	18	6	0	0	26	2	12	5	0	0	19	3	4	0	0	0	7	81
Hourly Total	7	74	1	0	0	82	12	74	17	0	0	103	2	42	22	0	0	66	11	19	6	0	0	36	287
8:00 AM	3	21	1	0	0	25	4	13	1	0	0	18	0	10	5	0	0	15	0	2	0	0	0	2	60
8:15 AM	1	25	0	0	0	26	3	10	2	0	0	15	2	5	9	0	0	16	4	7	0	0	0	11	68
8:30 AM	1	25	1	0	0	27	7	21	6	0	0	34	0	7	5	0	0	12	6	6	1	0	0	13	86
8:45 AM	1	25	0	0	0	26	5	17	3	0	0	25	0	12	12	0	0	24	5	5	2	0	0	12	87
Hourly Total	6	96	2	0	0	104	19	61	12	0	0	92	2	34	31	0	0	67	15	20	3	0	0	38	301
9:00 AM	3	22	0	0	0	25	5	12	2	0	0	19	1	7	6	0	0	14	5	0	0	0	0	5	63
9:15 AM	0	21	1	0	0	22	11	11	2	0	0	24	3	4	8	0	0	15	4	4	2	0	0	10	71
9:30 AM	0	15	1	0	0	16	7	12	2	0	0	21	1	4	10	0	0	15	1	4	1	0	0	6	58
9:45 AM	1	27	0	0	0	28	12	7	1	0	0	20	2	3	10	0	0	15	1	4	0	0	0	5	68
Hourly Total	4	85	2	0	0	91	35	42	7	0	0	84	7	18	34	0	0	59	11	12	3	0	0	26	260
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:30 AM	2	20	0	0	0	22	11	19	2	0	0	32	0	3	10	0	0	13	2	6	2	0	0	10	77
11:45 AM	0	17	2	0	0	19	10	18	1	0	0	29	0	7	11	0	0	18	6	5	2	0	0	13	79
Hourly Total	2	37	2	0	0	41	21	37	3	0	0	61	0	10	21	0	0	31	8	11	4	0	0	23	156
12:00 PM	2	15	0	0	0	17	11	19	4	0	0	34	4	8	14	0	0	26	0	6	2	0	0	8	85
12:15 PM	1	19	1	0	0	21	12	19	5	0	0	36	2	6	13	0	0	21	3	4	0	0	0	7	85
12:30 PM	1	20	2	0	0	23	7	22	1	0	0	30	0	7	11	0	0	18	2	3	1	0	0	6	77
12:45 PM	0	19	3	0	0	22	10	17	2	0	0	29	0	4	8	0	0	12	1	7	0	0	0	8	71
Hourly Total	4	73	6	0	0	83	40	77	12	0	0	129	6	25	46	0	0	77	6	20	3	0	0	29	318
1:00 PM	1	21	2	0	0	24	14	12	1	0	0	27	1	6	6	0	0	13	2	1	0	0	0	3	67
1:15 PM	0	19	1	0	0	20	8	19	2	0	0	29	0	1	20	0	0	21	2	7	3	0	0	12	82
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	1	40	3	0	0	44	22	31	3	0	0	56	1	7	26	0	0	34	4	8	3	0	0	15	149
3:00 PM	1	22	1	0	0	24	13	27	9	0	0	49	0	9	15	0	0	24	4	9	0	0	1	13	110
3:15 PM	2	26	0	0	0	28	16	14	3	0	0	33	2	7	11	0	0	20	7	11	0	0	1	18	99
3:30 PM	2	17	3	0	0	22	10	25	7	0	0	42	1	6	7	0	0	14	7	17	2	0	0	26	104
3:45 PM	0	32	1	0	0	33	16	25	5	0	0	46	0	6	9	0	0	15	6	8	1	0	0	15	109
Hourly Total	5	97	5	0	0	107	55	91	24	0	0	170	3	28	42	0	0	73	24	45	3	0	2	72	422
4:00 PM	1	21	1	0	0	23	15	30	6	0	0	51	0	4	8	0	0	12	4	15	3	0	0	22	108
4:15 PM	1	23	1	0	0	25	8	30	4	0	0	42	3	9	8	0	0	20	7	4	1	0	0	12	99

4:30 PM	1	18	3	0	0	22	11	36	2	0	0	49	1	6	5	0	0	12	1	7	0	0	0	8	91
4:45 PM	1	25	0	0	0	26	17	29	6	0	0	52	1	2	6	0	0	9	8	2	2	0	0	12	99
Hourly Total	4	87	5	0	0	96	51	125	18	0	0	194	5	21	27	0	0	53	20	28	6	0	0	54	397
5:00 PM	0	19	0	0	0	19	13	33	5	0	0	51	1	4	5	0	0	10	5	11	1	0	0	17	97
5:15 PM	0	26	2	0	0	28	1	28	3	0	0	32	0	8	4	0	0	12	5	6	4	0	0	15	87
5:30 PM	3	26	2	0	0	31	9	22	6	0	0	37	0	11	8	0	0	19	2	8	3	0	0	13	100
5:45 PM	1	27	1	0	0	29	7	22	4	0	0	33	0	6	5	0	0	11	7	4	6	0	5	17	90
Hourly Total	4	98	5	0	0	107	30	105	18	0	0	153	1	29	22	0	0	52	19	29	14	0	5	62	374
Grand Total	37	687	31	0	0	755	285	643	114	0	0	1042	27	214	271	0	0	512	118	192	45	0	7	355	2664
Approach %	4.9	91.0	4.1	0.0	-	-	27.4	61.7	10.9	0.0	-	-	5.3	41.8	52.9	0.0	-	-	33.2	54.1	12.7	0.0	-	-	-
Total %	1.4	25.8	1.2	0.0	-	28.3	10.7	24.1	4.3	0.0	-	39.1	1.0	8.0	10.2	0.0	-	19.2	4.4	7.2	1.7	0.0	-	13.3	-
Motorcycles	0	5	0	0	-	5	0	11	0	0	-	11	0	1	1	0	-	2	0	1	0	0	-	1	19
% Motorcycles	0.0	0.7	0.0	-	-	0.7	0.0	1.7	0.0	-	-	1.1	0.0	0.5	0.4	-	-	0.4	0.0	0.5	0.0	-	-	0.3	0.7
Cars & Light Goods	36	652	30	0	-	718	270	602	103	0	-	975	25	191	264	0	-	480	106	180	36	0	-	322	2495
% Cars & Light Goods	97.3	94.9	96.8	-	-	95.1	94.7	93.6	90.4	-	-	93.6	92.6	89.3	97.4	-	-	93.8	89.8	93.8	80.0	-	-	90.7	93.7
Buses	1	6	1	0	-	8	5	6	5	0	-	16	0	4	1	0	-	5	7	2	1	0	-	10	39
% Buses	2.7	0.9	3.2	-	-	1.1	1.8	0.9	4.4	-	-	1.5	0.0	1.9	0.4	-	-	1.0	5.9	1.0	2.2	-	-	2.8	1.5
Single-Unit Trucks	0	14	0	0	-	14	8	17	5	0	-	30	1	3	4	0	-	8	5	6	3	0	-	14	66
% Single-Unit Trucks	0.0	2.0	0.0	-	-	1.9	2.8	2.6	4.4	-	-	2.9	3.7	1.4	1.5	-	-	1.6	4.2	3.1	6.7	-	-	3.9	2.5
Articulated Trucks	0	8	0	0	-	8	0	7	1	0	-	8	1	11	0	0	-	12	0	3	5	0	-	8	36
% Articulated Trucks	0.0	1.2	0.0	-	-	1.1	0.0	1.1	0.9	-	-	0.8	3.7	5.1	0.0	-	-	2.3	0.0	1.6	11.1	-	-	2.3	1.4
Bicycles on Road	0	2	0	0	-	2	2	0	0	0	-	2	0	4	1	0	-	5	0	0	0	0	-	0	9
% Bicycles on Road	0.0	0.3	0.0	-	-	0.3	0.7	0.0	0.0	-	-	0.2	0.0	1.9	0.4	-	-	1.0	0.0	0.0	0.0	-	-	0.0	0.3
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	4	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57.1	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42.9	-	-

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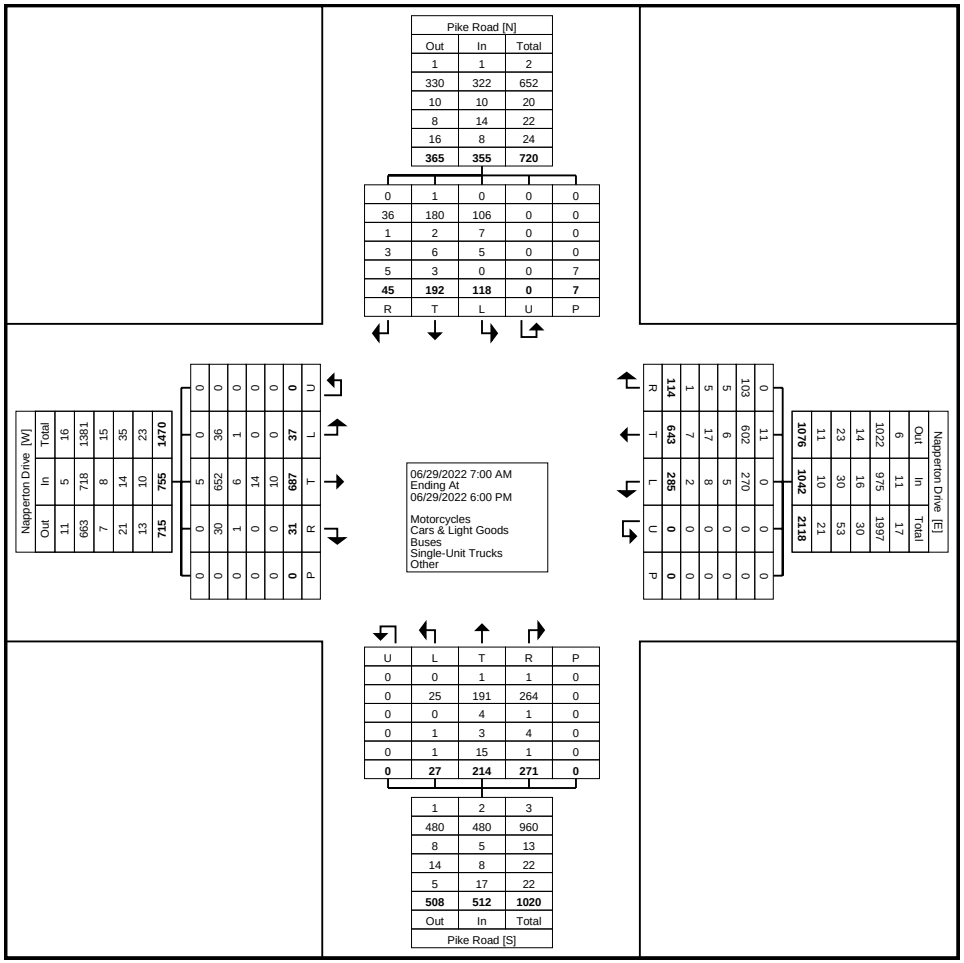
Site Code: 220331
Start Date: 06/29/2022



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Napperton Drive & Pike Road
Site Code: 220331
Start Date: 06/29/2022

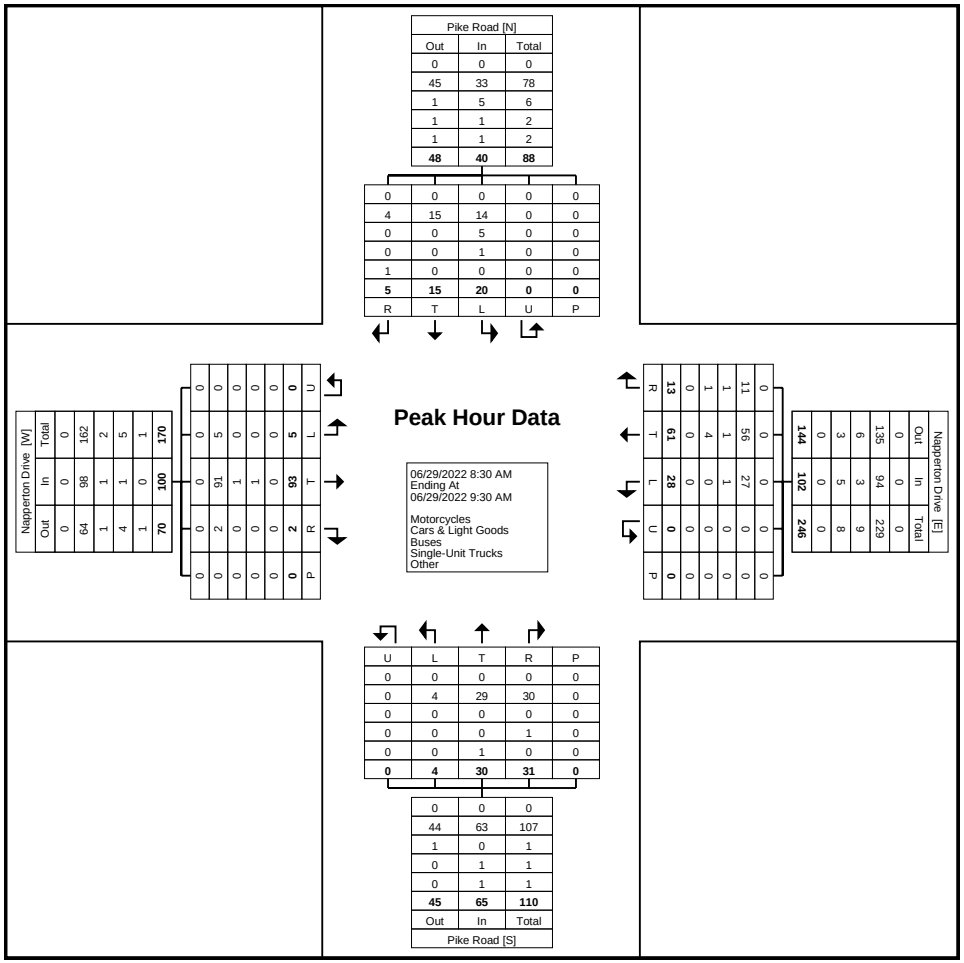
Turning Movement Peak Hour Data (8:30 AM)

Start Time	Napperton Drive Eastbound						Napperton Drive Westbound						Pike Road Northbound						Pike Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
8:30 AM	1	25	1	0	0	27	7	21	6	0	0	34	0	7	5	0	0	12	6	6	1	0	0	13	86
8:45 AM	1	25	0	0	0	26	5	17	3	0	0	25	0	12	12	0	0	24	5	5	2	0	0	12	87
9:00 AM	3	22	0	0	0	25	5	12	2	0	0	19	1	7	6	0	0	14	5	0	0	0	0	5	63
9:15 AM	0	21	1	0	0	22	11	11	2	0	0	24	3	4	8	0	0	15	4	4	2	0	0	10	71
Total	5	93	2	0	0	100	28	61	13	0	0	102	4	30	31	0	0	65	20	15	5	0	0	40	307
Approach %	5.0	93.0	2.0	0.0	-	-	27.5	59.8	12.7	0.0	-	-	6.2	46.2	47.7	0.0	-	-	50.0	37.5	12.5	0.0	-	-	-
Total %	1.6	30.3	0.7	0.0	-	32.6	9.1	19.9	4.2	0.0	-	33.2	1.3	9.8	10.1	0.0	-	21.2	6.5	4.9	1.6	0.0	-	13.0	-
PHF	0.417	0.930	0.500	0.000	-	0.926	0.636	0.726	0.542	0.000	-	0.750	0.333	0.625	0.646	0.000	-	0.677	0.833	0.625	0.625	0.000	-	0.769	0.882
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	5	91	2	0	-	98	27	56	11	0	-	94	4	29	30	0	-	63	14	15	4	0	-	33	288
% Cars & Light Goods	100.0	97.8	100.0	-	-	98.0	96.4	91.8	84.6	-	-	92.2	100.0	96.7	96.8	-	-	96.9	70.0	100.0	80.0	-	-	82.5	93.8
Buses	0	1	0	0	-	1	1	1	1	0	-	3	0	0	0	0	-	0	5	0	0	0	-	5	9
% Buses	0.0	1.1	0.0	-	-	1.0	3.6	1.6	7.7	-	-	2.9	0.0	0.0	0.0	-	-	0.0	25.0	0.0	0.0	-	-	12.5	2.9
Single-Unit Trucks	0	1	0	0	-	1	0	4	1	0	-	5	0	0	1	0	-	1	1	0	0	0	-	1	8
% Single-Unit Trucks	0.0	1.1	0.0	-	-	1.0	0.0	6.6	7.7	-	-	4.9	0.0	0.0	3.2	-	-	1.5	5.0	0.0	0.0	-	-	2.5	2.6
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	0	1	0	-	1	2
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	3.3	0.0	-	-	1.5	0.0	0.0	20.0	-	-	2.5	0.7
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Napperton Drive & Pike Road
Site Code: 220331
Start Date: 06/29/2022



Turning Movement Peak Hour Data Plot (8:30 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Napperton Drive & Pike Road
Site Code: 220331
Start Date: 06/29/2022

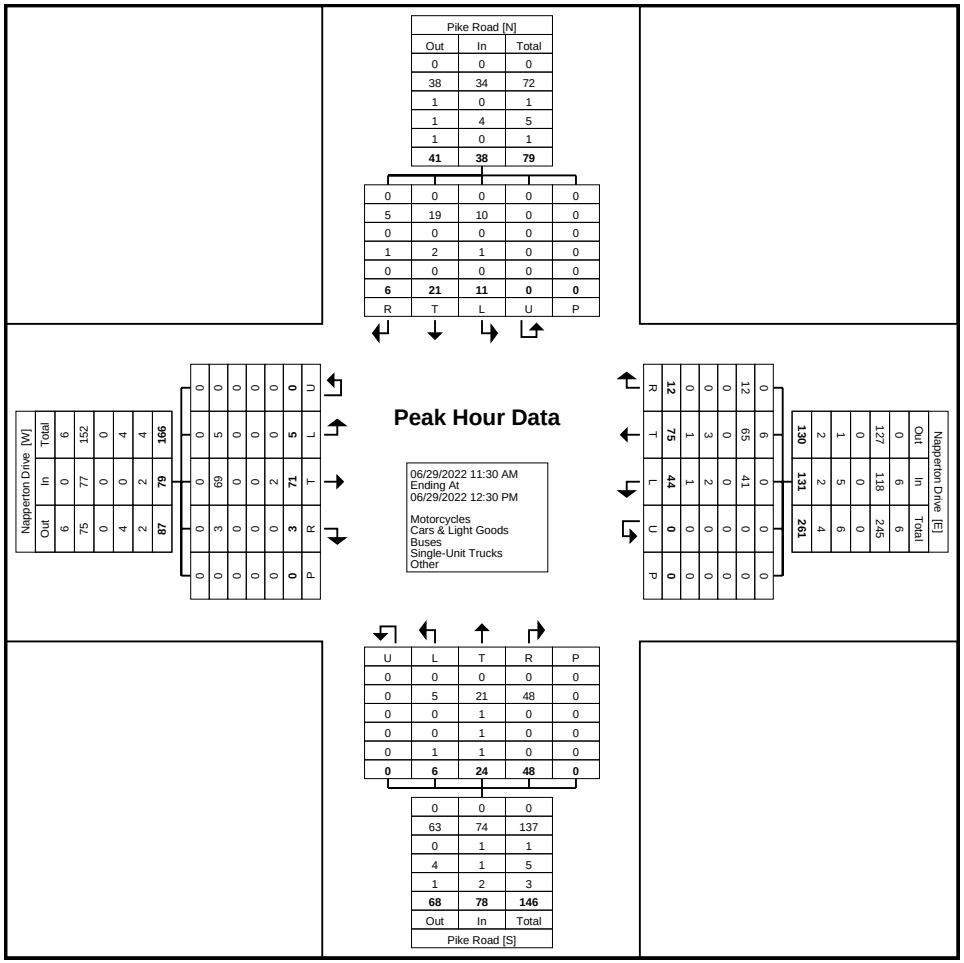
Turning Movement Peak Hour Data (11:30 AM)

Start Time	Napperton Drive Eastbound						Napperton Drive Westbound						Pike Road Northbound						Pike Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
11:30 AM	2	20	0	0	0	22	11	19	2	0	0	32	0	3	10	0	0	13	2	6	2	0	0	10	77
11:45 AM	0	17	2	0	0	19	10	18	1	0	0	29	0	7	11	0	0	18	6	5	2	0	0	13	79
12:00 PM	2	15	0	0	0	17	11	19	4	0	0	34	4	8	14	0	0	26	0	6	2	0	0	8	85
12:15 PM	1	19	1	0	0	21	12	19	5	0	0	36	2	6	13	0	0	21	3	4	0	0	0	7	85
Total	5	71	3	0	0	79	44	75	12	0	0	131	6	24	48	0	0	78	11	21	6	0	0	38	326
Approach %	6.3	89.9	3.8	0.0	-	-	33.6	57.3	9.2	0.0	-	-	7.7	30.8	61.5	0.0	-	-	28.9	55.3	15.8	0.0	-	-	-
Total %	1.5	21.8	0.9	0.0	-	24.2	13.5	23.0	3.7	0.0	-	40.2	1.8	7.4	14.7	0.0	-	23.9	3.4	6.4	1.8	0.0	-	11.7	-
PHF	0.625	0.888	0.375	0.000	-	0.898	0.917	0.987	0.600	0.000	-	0.910	0.375	0.750	0.857	0.000	-	0.750	0.458	0.875	0.750	0.000	-	0.731	0.959
Motorcycles	0	0	0	0	-	0	0	6	0	0	-	6	0	0	0	0	-	0	0	0	0	0	-	0	6
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	8.0	0.0	-	-	4.6	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	1.8
Cars & Light Goods	5	69	3	0	-	77	41	65	12	0	-	118	5	21	48	0	-	74	10	19	5	0	-	34	303
% Cars & Light Goods	100.0	97.2	100.0	-	-	97.5	93.2	86.7	100.0	-	-	90.1	83.3	87.5	100.0	-	-	94.9	90.9	90.5	83.3	-	-	89.5	92.9
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	1
% Buses	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	4.2	0.0	-	-	1.3	0.0	0.0	0.0	-	-	0.0	0.3
Single-Unit Trucks	0	0	0	0	-	0	2	3	0	0	-	5	0	1	0	0	-	1	1	2	1	0	-	4	10
% Single-Unit Trucks	0.0	0.0	0.0	-	-	0.0	4.5	4.0	0.0	-	-	3.8	0.0	4.2	0.0	-	-	1.3	9.1	9.5	16.7	-	-	10.5	3.1
Articulated Trucks	0	2	0	0	-	2	0	1	0	0	-	1	1	1	0	0	-	2	0	0	0	0	-	0	5
% Articulated Trucks	0.0	2.8	0.0	-	-	2.5	0.0	1.3	0.0	-	-	0.8	16.7	4.2	0.0	-	-	2.6	0.0	0.0	0.0	-	-	0.0	1.5
Bicycles on Road	0	0	0	0	-	0	1	0	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	2.3	0.0	0.0	-	-	0.8	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.3
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Napperton Drive & Pike Road
Site Code: 220331
Start Date: 06/29/2022



Turning Movement Peak Hour Data Plot (11:30 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Napperton Drive & Pike Road
Site Code: 220331
Start Date: 06/29/2022

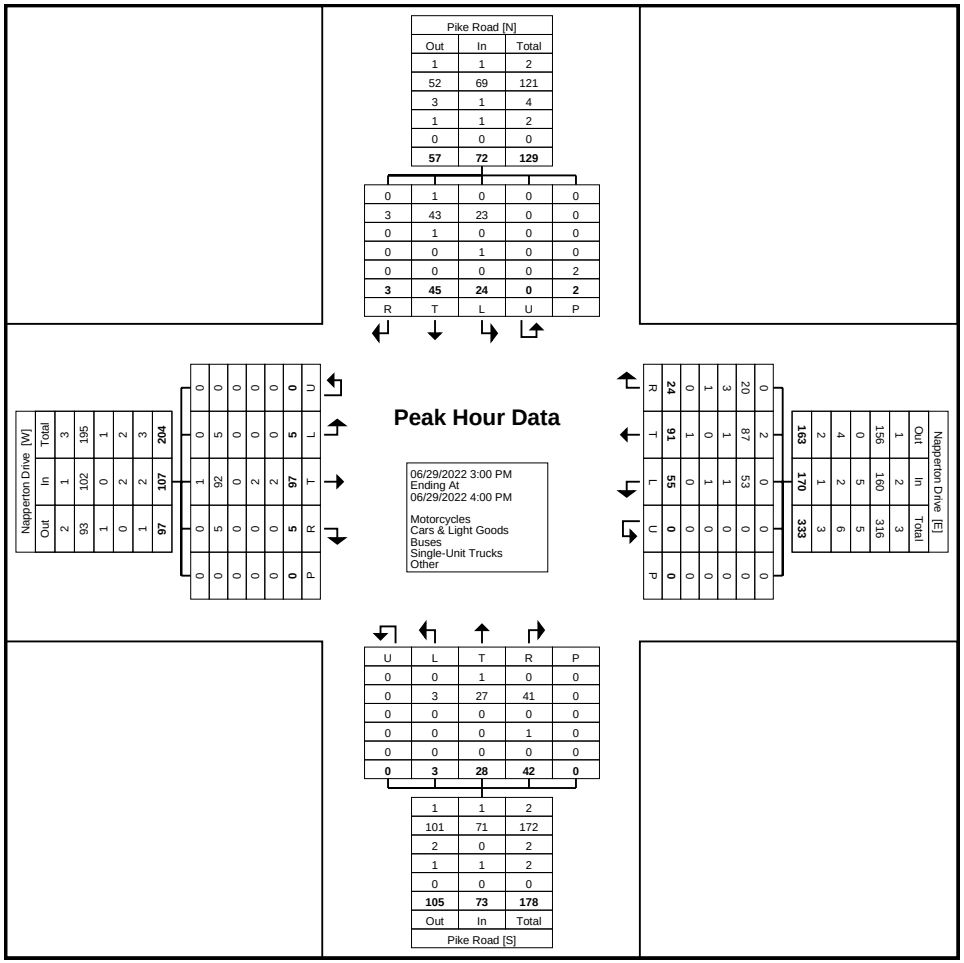
Turning Movement Peak Hour Data (3:00 PM)

Start Time	Napperton Drive Eastbound						Napperton Drive Westbound						Pike Road Northbound						Pike Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
3:00 PM	1	22	1	0	0	24	13	27	9	0	0	49	0	9	15	0	0	24	4	9	0	0	1	13	110
3:15 PM	2	26	0	0	0	28	16	14	3	0	0	33	2	7	11	0	0	20	7	11	0	0	1	18	99
3:30 PM	2	17	3	0	0	22	10	25	7	0	0	42	1	6	7	0	0	14	7	17	2	0	0	26	104
3:45 PM	0	32	1	0	0	33	16	25	5	0	0	46	0	6	9	0	0	15	6	8	1	0	0	15	109
Total	5	97	5	0	0	107	55	91	24	0	0	170	3	28	42	0	0	73	24	45	3	0	2	72	422
Approach %	4.7	90.7	4.7	0.0	-	-	32.4	53.5	14.1	0.0	-	-	4.1	38.4	57.5	0.0	-	-	33.3	62.5	4.2	0.0	-	-	-
Total %	1.2	23.0	1.2	0.0	-	25.4	13.0	21.6	5.7	0.0	-	40.3	0.7	6.6	10.0	0.0	-	17.3	5.7	10.7	0.7	0.0	-	17.1	-
PHF	0.625	0.758	0.417	0.000	-	0.811	0.859	0.843	0.667	0.000	-	0.867	0.375	0.778	0.700	0.000	-	0.760	0.857	0.662	0.375	0.000	-	0.692	0.959
Motorcycles	0	1	0	0	-	1	0	2	0	0	-	2	0	1	0	0	-	1	0	1	0	0	-	1	5
% Motorcycles	0.0	1.0	0.0	-	-	0.9	0.0	2.2	0.0	-	-	1.2	0.0	3.6	0.0	-	-	1.4	0.0	2.2	0.0	-	-	1.4	1.2
Cars & Light Goods	5	92	5	0	-	102	53	87	20	0	-	160	3	27	41	0	-	71	23	43	3	0	-	69	402
% Cars & Light Goods	100.0	94.8	100.0	-	-	95.3	96.4	95.6	83.3	-	-	94.1	100.0	96.4	97.6	-	-	97.3	95.8	95.6	100.0	-	-	95.8	95.3
Buses	0	0	0	0	-	0	1	1	3	0	-	5	0	0	0	0	-	0	0	1	0	0	-	1	6
% Buses	0.0	0.0	0.0	-	-	0.0	1.8	1.1	12.5	-	-	2.9	0.0	0.0	0.0	-	-	0.0	0.0	2.2	0.0	-	-	1.4	1.4
Single-Unit Trucks	0	2	0	0	-	2	1	0	1	0	-	2	0	0	1	0	-	1	1	0	0	0	-	1	6
% Single-Unit Trucks	0.0	2.1	0.0	-	-	1.9	1.8	0.0	4.2	-	-	1.2	0.0	0.0	2.4	-	-	1.4	4.2	0.0	0.0	-	-	1.4	1.4
Articulated Trucks	0	2	0	0	-	2	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	3
% Articulated Trucks	0.0	2.1	0.0	-	-	1.9	0.0	1.1	0.0	-	-	0.6	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.7
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Napperton Drive & Pike Road
Site Code: 220331
Start Date: 06/29/2022



Turning Movement Peak Hour Data Plot (3:00 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 mmurch@ptsl.com

Count Name: Victoria Street & Saulsbury Street
Site Code: 210237
Start Date: 03/10/2022

Turning Movement Data

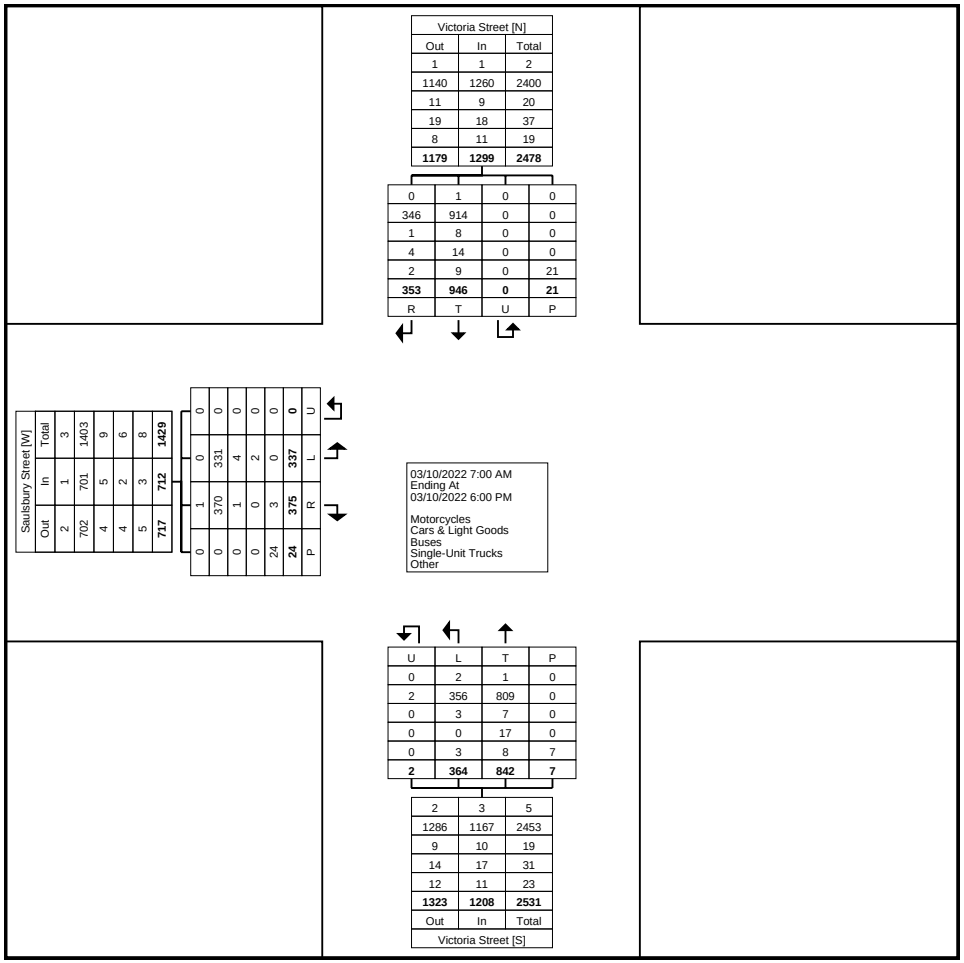
Start Time	Saulsbury Street Eastbound					Victoria Street Northbound					Victoria Street Southbound					
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Int. Total
7:00 AM	13	2	0	0	15	5	26	0	0	31	12	13	0	0	25	71
7:15 AM	9	6	0	0	15	4	24	0	0	28	18	13	0	0	31	74
7:30 AM	8	8	0	0	16	9	24	0	0	33	18	13	0	0	31	80
7:45 AM	12	10	0	0	22	6	47	2	2	55	14	23	0	2	37	114
Hourly Total	42	26	0	0	68	24	121	2	2	147	62	62	0	2	124	339
8:00 AM	7	7	0	2	14	8	32	0	0	40	25	14	0	2	39	93
8:15 AM	9	9	0	0	18	8	28	0	0	36	24	16	0	0	40	94
8:30 AM	7	12	0	1	19	9	30	0	1	39	31	12	0	3	43	101
8:45 AM	9	11	0	1	20	9	23	0	0	32	22	13	0	0	35	87
Hourly Total	32	39	0	4	71	34	113	0	1	147	102	55	0	5	157	375
9:00 AM	8	12	0	0	20	11	23	0	0	34	23	15	0	1	38	92
9:15 AM	7	13	0	0	20	7	13	0	0	20	15	7	0	1	22	62
9:30 AM	12	9	0	2	21	6	27	0	0	33	17	11	0	2	28	82
9:45 AM	14	11	0	0	25	8	18	0	0	26	29	6	0	2	35	86
Hourly Total	41	45	0	2	86	32	81	0	0	113	84	39	0	6	123	322
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:30 AM	11	12	0	1	23	14	25	0	0	39	26	10	0	0	36	98
11:45 AM	10	17	0	1	27	15	27	0	0	42	29	6	0	0	35	104
Hourly Total	21	29	0	2	50	29	52	0	0	81	55	16	0	0	71	202
12:00 PM	10	11	0	0	21	9	26	0	0	35	39	14	0	1	53	109
12:15 PM	9	14	0	0	23	11	25	0	0	36	23	8	0	0	31	90
12:30 PM	9	8	0	2	17	9	22	0	2	31	16	5	0	0	21	69
12:45 PM	9	14	0	2	23	10	22	0	0	32	28	11	0	0	39	94
Hourly Total	37	47	0	4	84	39	95	0	2	134	106	38	0	1	144	362
1:00 PM	9	12	0	2	21	9	24	0	2	33	16	10	0	0	26	80
1:15 PM	6	8	0	0	14	12	21	0	0	33	24	7	0	2	31	78
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	15	20	0	2	35	21	45	0	2	66	40	17	0	2	57	158
3:00 PM	16	22	0	0	38	22	30	0	0	52	35	9	0	2	44	134
3:15 PM	21	19	0	0	40	17	25	0	0	42	41	11	0	0	52	134
3:30 PM	15	13	0	2	28	18	37	0	0	55	44	15	0	0	59	142
3:45 PM	17	17	0	3	34	13	43	0	0	56	48	21	0	0	69	159
Hourly Total	69	71	0	5	140	70	135	0	0	205	168	56	0	2	224	569
4:00 PM	17	11	0	1	28	15	31	0	0	46	50	11	0	0	61	135
4:15 PM	12	10	0	1	22	23	29	0	0	52	35	10	0	2	45	119
4:30 PM	17	14	0	0	31	14	31	0	0	45	41	6	0	0	47	123

4:45 PM	8	12	0	0	20	12	30	0	0	42	44	9	0	1	53	115
Hourly Total	54	47	0	2	101	64	121	0	0	185	170	36	0	3	206	492
5:00 PM	11	13	0	0	24	17	19	0	0	36	51	8	0	0	59	119
5:15 PM	7	19	0	0	26	18	26	0	0	44	35	9	0	0	44	114
5:30 PM	3	7	0	0	10	8	16	0	0	24	33	10	0	0	43	77
5:45 PM	5	12	0	3	17	8	18	0	0	26	40	7	0	0	47	90
Hourly Total	26	51	0	3	77	51	79	0	0	130	159	34	0	0	193	400
Grand Total	337	375	0	24	712	364	842	2	7	1208	946	353	0	21	1299	3219
Approach %	47.3	52.7	0.0	-	-	30.1	69.7	0.2	-	-	72.8	27.2	0.0	-	-	-
Total %	10.5	11.6	0.0	-	22.1	11.3	26.2	0.1	-	37.5	29.4	11.0	0.0	-	40.4	-
Motorcycles	0	1	0	-	1	2	1	0	-	3	1	0	0	-	1	5
% Motorcycles	0.0	0.3	-	-	0.1	0.5	0.1	0.0	-	0.2	0.1	0.0	-	-	0.1	0.2
Cars & Light Goods	331	370	0	-	701	356	809	2	-	1167	914	346	0	-	1260	3128
% Cars & Light Goods	98.2	98.7	-	-	98.5	97.8	96.1	100.0	-	96.6	96.6	98.0	-	-	97.0	97.2
Buses	4	1	0	-	5	3	7	0	-	10	8	1	0	-	9	24
% Buses	1.2	0.3	-	-	0.7	0.8	0.8	0.0	-	0.8	0.8	0.3	-	-	0.7	0.7
Single-Unit Trucks	2	0	0	-	2	0	17	0	-	17	14	4	0	-	18	37
% Single-Unit Trucks	0.6	0.0	-	-	0.3	0.0	2.0	0.0	-	1.4	1.5	1.1	-	-	1.4	1.1
Articulated Trucks	0	0	0	-	0	0	8	0	-	8	9	2	0	-	11	19
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	1.0	0.0	-	0.7	1.0	0.6	-	-	0.8	0.6
Bicycles on Road	0	3	0	-	3	3	0	0	-	3	0	0	0	-	0	6
% Bicycles on Road	0.0	0.8	-	-	0.4	0.8	0.0	0.0	-	0.2	0.0	0.0	-	-	0.0	0.2
Bicycles on Crosswalk	-	-	-	2	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	8.3	-	-	-	-	0.0	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	22	-	-	-	-	7	-	-	-	-	21	-	-
% Pedestrians	-	-	-	91.7	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 mmurch@ptsl.com

Count Name: Victoria Street & Saulsbury Street
Site Code: 210237
Start Date: 03/10/2022



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 mmurch@ptsl.com

Count Name: Victoria Street & Saulsbury Street
Site Code: 210237
Start Date: 03/10/2022

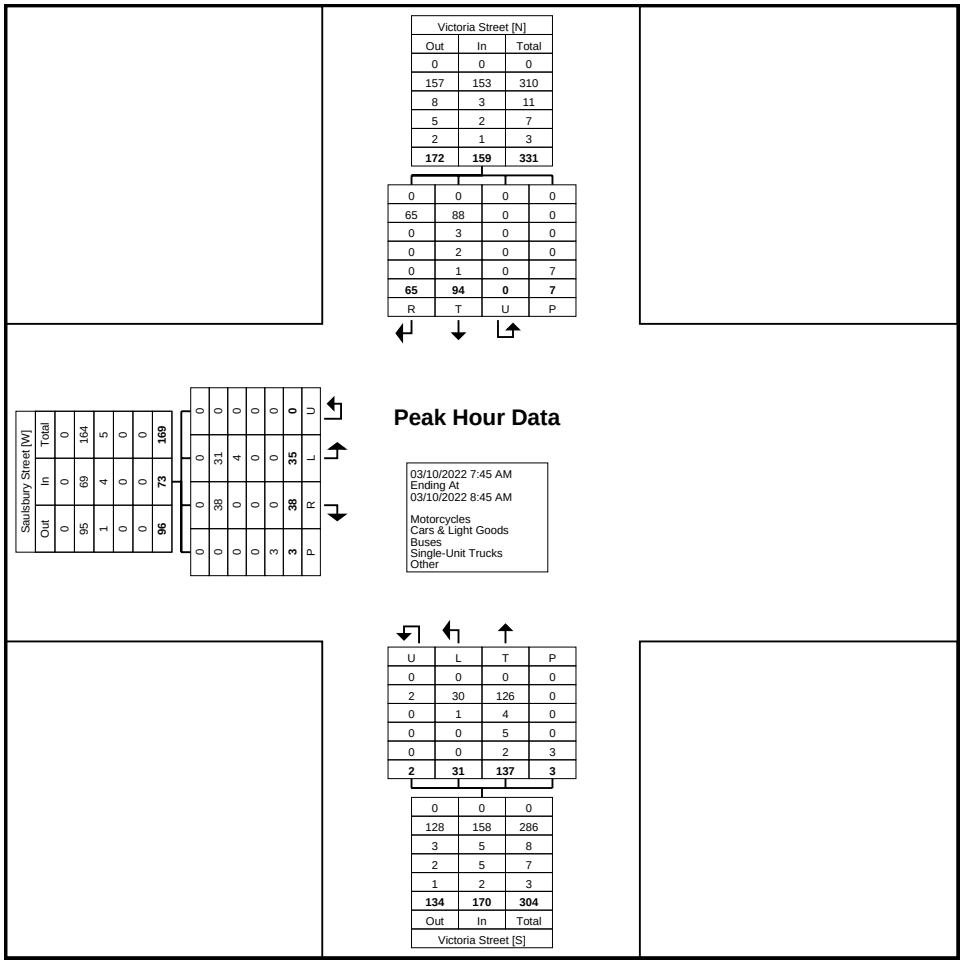
Turning Movement Peak Hour Data (7:45 AM)

Start Time	Saulsbury Street Eastbound					Victoria Street Northbound					Victoria Street Southbound					
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Int. Total
7:45 AM	12	10	0	0	22	6	47	2	2	55	14	23	0	2	37	114
8:00 AM	7	7	0	2	14	8	32	0	0	40	25	14	0	2	39	93
8:15 AM	9	9	0	0	18	8	28	0	0	36	24	16	0	0	40	94
8:30 AM	7	12	0	1	19	9	30	0	1	39	31	12	0	3	43	101
Total	35	38	0	3	73	31	137	2	3	170	94	65	0	7	159	402
Approach %	47.9	52.1	0.0	-	-	18.2	80.6	1.2	-	-	59.1	40.9	0.0	-	-	-
Total %	8.7	9.5	0.0	-	18.2	7.7	34.1	0.5	-	42.3	23.4	16.2	0.0	-	39.6	-
PHF	0.729	0.792	0.000	-	0.830	0.861	0.729	0.250	-	0.773	0.758	0.707	0.000	-	0.924	0.882
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	31	38	0	-	69	30	126	2	-	158	88	65	0	-	153	380
% Cars & Light Goods	88.6	100.0	-	-	94.5	96.8	92.0	100.0	-	92.9	93.6	100.0	-	-	96.2	94.5
Buses	4	0	0	-	4	1	4	0	-	5	3	0	0	-	3	12
% Buses	11.4	0.0	-	-	5.5	3.2	2.9	0.0	-	2.9	3.2	0.0	-	-	1.9	3.0
Single-Unit Trucks	0	0	0	-	0	0	5	0	-	5	2	0	0	-	2	7
% Single-Unit Trucks	0.0	0.0	-	-	0.0	0.0	3.6	0.0	-	2.9	2.1	0.0	-	-	1.3	1.7
Articulated Trucks	0	0	0	-	0	0	2	0	-	2	1	0	0	-	1	3
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	1.5	0.0	-	1.2	1.1	0.0	-	-	0.6	0.7
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	0.0	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	3	-	-	-	-	3	-	-	-	-	7	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 mmurch@ptsl.com

Count Name: Victoria Street & Saulsbury Street
Site Code: 210237
Start Date: 03/10/2022



Turning Movement Peak Hour Data Plot (7:45 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 mmurch@ptsl.com

Count Name: Victoria Street & Saulsbury Street
Site Code: 210237
Start Date: 03/10/2022

Turning Movement Peak Hour Data (11:30 AM)

Start Time	Saulsbury Street Eastbound					Victoria Street Northbound					Victoria Street Southbound					
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Int. Total
11:30 AM	11	12	0	1	23	14	25	0	0	39	26	10	0	0	36	98
11:45 AM	10	17	0	1	27	15	27	0	0	42	29	6	0	0	35	104
12:00 PM	10	11	0	0	21	9	26	0	0	35	39	14	0	1	53	109
12:15 PM	9	14	0	0	23	11	25	0	0	36	23	8	0	0	31	90
Total	40	54	0	2	94	49	103	0	0	152	117	38	0	1	155	401
Approach %	42.6	57.4	0.0	-	-	32.2	67.8	0.0	-	-	75.5	24.5	0.0	-	-	-
Total %	10.0	13.5	0.0	-	23.4	12.2	25.7	0.0	-	37.9	29.2	9.5	0.0	-	38.7	-
PHF	0.909	0.794	0.000	-	0.870	0.817	0.954	0.000	-	0.905	0.750	0.679	0.000	-	0.731	0.920
Motorcycles	0	0	0	-	0	1	0	0	-	1	0	0	0	-	0	1
% Motorcycles	0.0	0.0	-	-	0.0	2.0	0.0	-	-	0.7	0.0	0.0	-	-	0.0	0.2
Cars & Light Goods	39	53	0	-	92	48	98	0	-	146	114	37	0	-	151	389
% Cars & Light Goods	97.5	98.1	-	-	97.9	98.0	95.1	-	-	96.1	97.4	97.4	-	-	97.4	97.0
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Single-Unit Trucks	1	0	0	-	1	0	2	0	-	2	1	1	0	-	2	5
% Single-Unit Trucks	2.5	0.0	-	-	1.1	0.0	1.9	-	-	1.3	0.9	2.6	-	-	1.3	1.2
Articulated Trucks	0	0	0	-	0	0	3	0	-	3	2	0	0	-	2	5
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	2.9	-	-	2.0	1.7	0.0	-	-	1.3	1.2
Bicycles on Road	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Bicycles on Road	0.0	1.9	-	-	1.1	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.2
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	2	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
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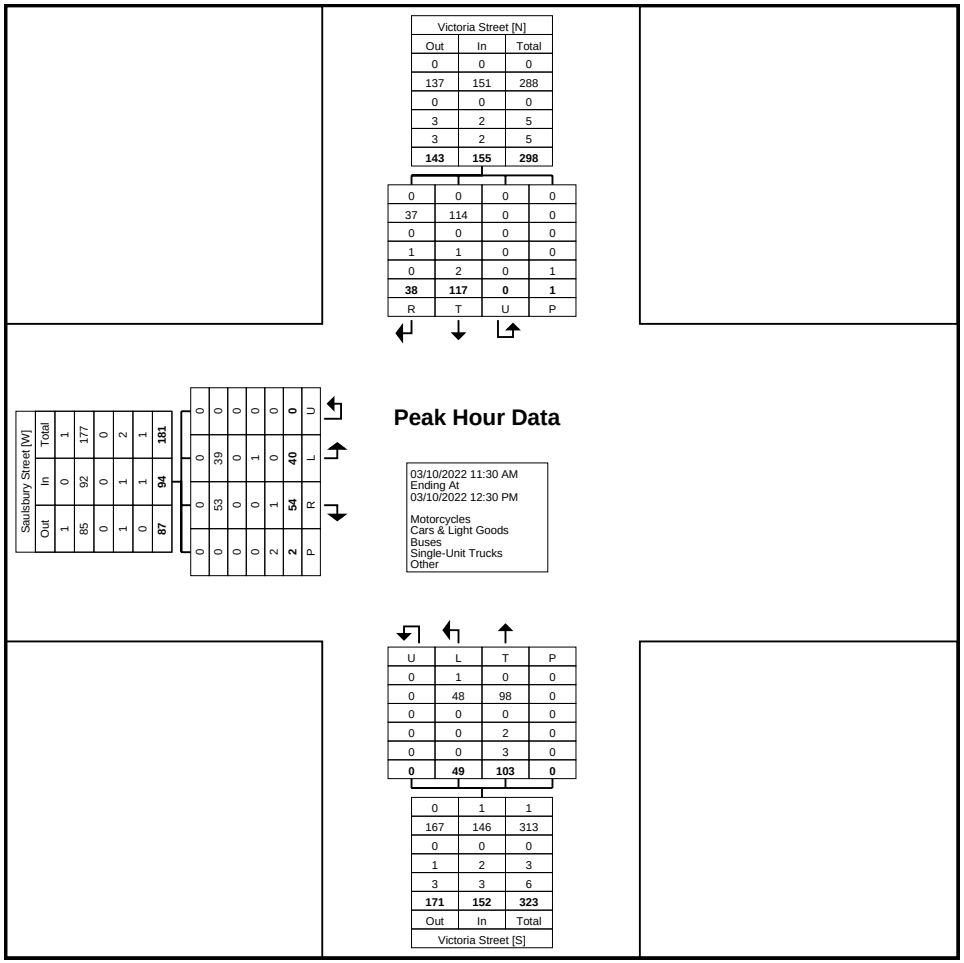
Count Name: Victoria Street & Saulsbury Street
Site Code: 210237
Start Date: 03/10/2022



Turning Movement Peak Hour Data Plot (11:30 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 mmurch@ptsl.com

Count Name: Victoria Street & Saulsbury Street
Site Code: 210237
Start Date: 03/10/2022

Turning Movement Peak Hour Data (3:15 PM)

Start Time	Saulsbury Street Eastbound					Victoria Street Northbound					Victoria Street Southbound					
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Int. Total
3:15 PM	21	19	0	0	40	17	25	0	0	42	41	11	0	0	52	134
3:30 PM	15	13	0	2	28	18	37	0	0	55	44	15	0	0	59	142
3:45 PM	17	17	0	3	34	13	43	0	0	56	48	21	0	0	69	159
4:00 PM	17	11	0	1	28	15	31	0	0	46	50	11	0	0	61	135
Total	70	60	0	6	130	63	136	0	0	199	183	58	0	0	241	570
Approach %	53.8	46.2	0.0	-	-	31.7	68.3	0.0	-	-	75.9	24.1	0.0	-	-	-
Total %	12.3	10.5	0.0	-	22.8	11.1	23.9	0.0	-	34.9	32.1	10.2	0.0	-	42.3	-
PHF	0.833	0.789	0.000	-	0.813	0.875	0.791	0.000	-	0.888	0.915	0.690	0.000	-	0.873	0.896
Motorcycles	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Motorcycles	0.0	1.7	-	-	0.8	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.2
Cars & Light Goods	70	59	0	-	129	61	129	0	-	190	174	56	0	-	230	549
% Cars & Light Goods	100.0	98.3	-	-	99.2	96.8	94.9	-	-	95.5	95.1	96.6	-	-	95.4	96.3
Buses	0	0	0	-	0	1	3	0	-	4	3	1	0	-	4	8
% Buses	0.0	0.0	-	-	0.0	1.6	2.2	-	-	2.0	1.6	1.7	-	-	1.7	1.4
Single-Unit Trucks	0	0	0	-	0	0	3	0	-	3	4	1	0	-	5	8
% Single-Unit Trucks	0.0	0.0	-	-	0.0	0.0	2.2	-	-	1.5	2.2	1.7	-	-	2.1	1.4
Articulated Trucks	0	0	0	-	0	0	1	0	-	1	2	0	0	-	2	3
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	0.7	-	-	0.5	1.1	0.0	-	-	0.8	0.5
Bicycles on Road	0	0	0	-	0	1	0	0	-	1	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	-	-	0.0	1.6	0.0	-	-	0.5	0.0	0.0	-	-	0.0	0.2
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	6	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
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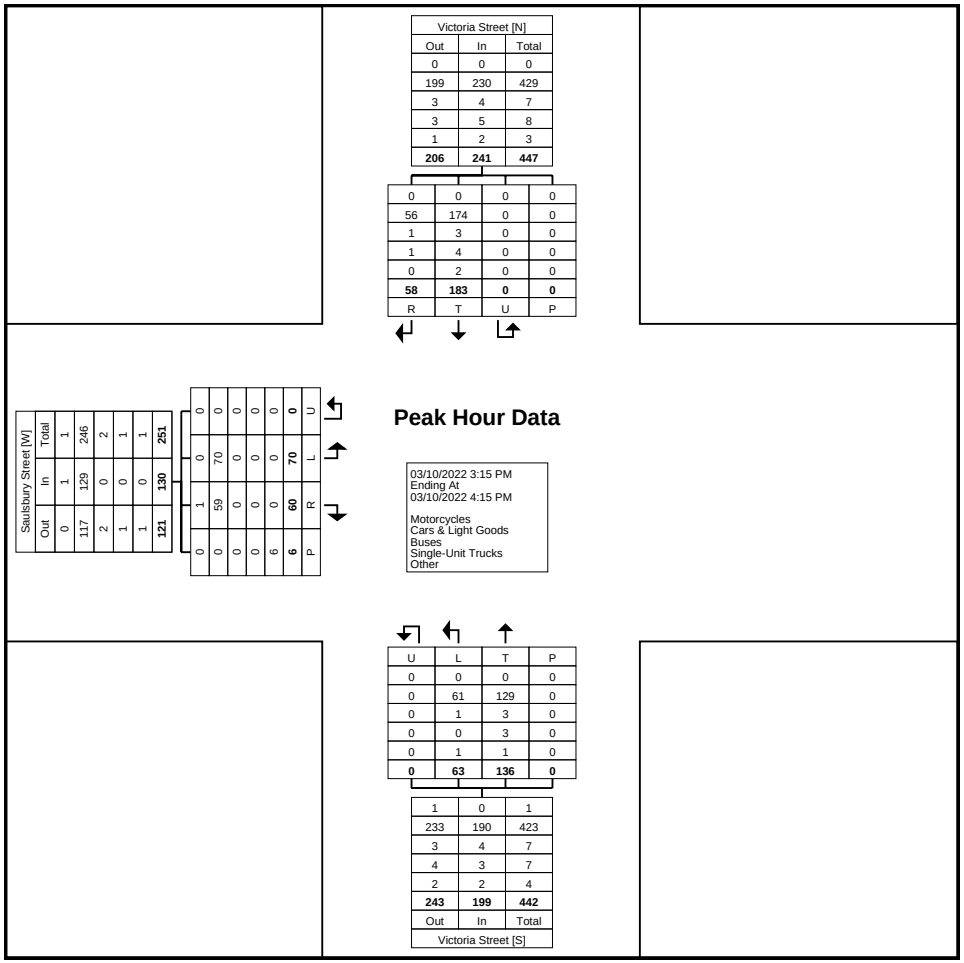
Count Name: Victoria Street & Saulsbury Street
Site Code: 210237
Start Date: 03/10/2022



Turning Movement Peak Hour Data Plot (3:15 PM)

NEW CABINET 2006

Traffic Control Technologies
TCT
Liverpool, NY 13088

Intersection _____
Installation Date _____
Programmed By _____
Program Date _____
Controller Serial # _____

NAZTEC TS2 900 SERIES
500 SERIES
NAZTEC

LC/LN SERIES
INTERSECTION PROGRAMMING DATA

SECURITY CODE

CLR-VAL—WXYZ (to access RAM)

CLR—VAL—WXYZ—LOAD (to load new Security Code)

3	9	4	4

INTERVAL TIMES

CLR—φ—INT-(Interval)—VAL—(0-12.7 or 127)—LOAD

INTERVAL	PHASE (auto-increments by phase)							
	1	2	3	4	5	6	7	8
MGR	30	30						
PSG								
YEL	4	4						
RED	2	2						
MX1								
MX2								
WLK								
PCL								
S/A								
TBR								
TTR								
MGP								
MVI								

PHASE SERVICE MODE (x = ON, BLANK = OFF)

CLR—(FUNCTION)—φ—(1-8)—VAL—(ON o: OFF)—LOAD

FUNCTION	PHASE							
	1	2	3	4	5	6	7	8
MEMORY								
EXT RECALL								
MAX RECALL								
PED RECALL								
FLASH WALK								

NOTE: EXT RECALL AND MAX RECALL CANNOT BOTH BE ON FOR THE SAME PHASE

CONTROLLER SEQUENCE SELECTION

CLR—φ—0—VAL—(0-5 or WXYZ)—LOAD

MODE IN EFFECT	CODE
Sequential	0
Dual Ring	1
Spec 1-4	2-5
LEAD/LAG (REV 4 !)	WXYZ

W = 1 & 2 Y = 5 & 6 X = 3 & 4 Z = 7 & 8	1 = LEAD 2 = LAG 3 = AUTO

*CONDITIONAL SERVICE MODE

INT-S/A-VAL-(0-2)-LOAD

0 = Disable, 1 = Enabled
2 = Enabled by MSD Pin 33

*CONDITIONAL SERVICE MAX TIME

INT-TBR-VAL-(0-127)-LOAD

0-12.7 or 0-127

PHASES USED

CLR—φ—(1-8)—VAL—(ON OR OFF)—LOAD

PHASE	1	2	3	4	5	6	7	8
ON OR OFF								

REMOTE FLASH EXIT PHASES

CLR—φ—9—INT—PSG—VAL-(0-8)—LOAD—INT—YEL—VAL-(0-8)—LOAD
RING 1 RING 2

RING 1	RING 2

DUAL ENTRY MODE

CLR—φ—9-INT—RED—VAL-(0-3)—LOAD

(0 = OFF, 1 = ON, 2 = CALLED BY INPUT, 3 = CALLED BY CNA)

*Rev 2 and higher software only

LC 8000 Cont.

Traffic Control Technologies
TCT
Liverpool, NY 13088

Intersection _____

Installation Date _____

Programmed By _____

Program Date _____

Controller Serial # _____

LC/LN SERIES
INTERSECTION PROGRAMMING DATA

SECURITY CODE

CLR-VAL—WXYZ (to access RAM)

CLR—VAL—WXYZ—LOAD (to load new Security Code)

3	9	8	1

φ1 39
φ2 81 adv
φ3 81
φ4 39 adv

INTERVAL TIMES

CLR—φ—INT-(Interval)—VAL—(0-12.7 or 127)—LOAD

INTERVAL	PHASE (auto-increments by phase)							
	1	2	3	4	5	6	7	8
MGR	30	6	28	6				
PSG								
YEL	3.3	3.3	3.3	3.3				
RED	1	1	1	1				
MX1	30	6	28	6				
MX2								
WLK	20		18					
PCL	10		10					
S/A								
TBR								
TTR								
MGP								
MVI								

PHASE SERVICE MODE (x = ON, BLANK = OFF)

CLR—(FUNCTION)—φ—(1-8)—VAL—(ON or OFF)—LOAD

FUNCTION	PHASE							
	1	2	3	4	5	6	7	8
MEMORY								
EXT RECALL								
MAX RECALL								
PED RECALL								
FLASH WALK								

NOTE: EXT RECALL AND MAX RECALL CANNOT BOTH BE ON FOR THE SAME PHASE

CONTROLLER SEQUENCE SELECTION

CLR—φ—0—VAL—(0-5 or WXYZ)—LOAD

MODE IN EFFECT	CODE
Sequential	0
Dual Ring	1
Spec 1-4	2-5
LEAD/LAG (REV 4 !)	WXYZ

W = 1 & 2 Y = 5 & 6 X = 3 & 4 Z = 7 & 8	1 = LEAD 2 = LAG 3 = AUTO

*CONDITIONAL SERVICE MODE

INT-S/A-VAL-(0-2)-LOAD

0 = Disable, 1 = Enabled
2 = Enabled by MSD Pin 33

*CONDITIONAL SERVICE MAX TIME

INT-TBR-VAL-(0-127)-LOAD

0-12.7 or 0-127

PHASES USED

CLR—φ—(1-8)—VAL—(ON OR OFF)—LOAD

PHASE	1	2	3	4	5	6	7	8
ON OR OFF								

REMOTE FLASH EXIT PHASES

CLR—φ—9—INT—PSG—VAL-(0-8)—LOAD—INT—YEL—VAL-(0-8)—LOAD
RING 1 RING 2

RING 1	RING 2

DUAL ENTRY MODE

CLR—φ—9-INT—RED—VAL-(0-3)—LOAD

(0 = OFF, 1 = ON, 2 = CALLED BY INPUT, 3 = CALLED BY CNA)

*Rev 2 and higher software only

Appendix C

Existing Traffic Operations Reports

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	93	2	28	61	13	4	30	31	20	15	5
Future Volume (vph)	5	93	2	28	61	13	4	30	31	20	15	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.983			0.935			0.984	
Flt Protected		0.998			0.987			0.997			0.975	
Satd. Flow (prot)	0	1856	0	0	1710	0	0	1722	0	0	1549	0
Flt Permitted		0.998			0.987			0.997			0.975	
Satd. Flow (perm)	0	1856	0	0	1710	0	0	1722	0	0	1549	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		201.3			628.3			128.4			173.1	
Travel Time (s)		12.1			37.7			9.2			12.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	4%	8%	15%	0%	3%	3%	30%	0%	20%
Adj. Flow (vph)	5	101	2	30	66	14	4	33	34	22	16	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	108	0	0	110	0	0	71	0	0	43	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	93	2	28	61	13	4	30	31	20	15	5
Future Vol, veh/h	5	93	2	28	61	13	4	30	31	20	15	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	4	8	15	0	3	3	30	0	20
Mvmt Flow	5	101	2	30	66	14	4	33	34	22	16	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	80	0	0	103	0	0	256	252	102	279	246	73
Stage 1	-	-	-	-	-	-	112	112	-	133	133	-
Stage 2	-	-	-	-	-	-	144	140	-	146	113	-
Critical Hdwy	4.1	-	-	4.14	-	-	7.1	6.53	6.23	7.4	6.5	6.4
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.53	-	6.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.53	-	6.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.236	-	-	3.5	4.027	3.327	3.77	4	3.48
Pot Cap-1 Maneuver	1531	-	-	1476	-	-	701	650	950	621	660	941
Stage 1	-	-	-	-	-	-	898	801	-	808	790	-
Stage 2	-	-	-	-	-	-	864	779	-	794	806	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1531	-	-	1476	-	-	671	634	950	565	644	941
Mov Cap-2 Maneuver	-	-	-	-	-	-	671	634	-	565	644	-
Stage 1	-	-	-	-	-	-	895	799	-	806	773	-
Stage 2	-	-	-	-	-	-	823	763	-	732	804	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	2.1	10.2	11.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	757	1531	-	-	1476	-	-	625
HCM Lane V/C Ratio	0.093	0.004	-	-	0.021	-	-	0.07
HCM Control Delay (s)	10.2	7.4	0	-	7.5	0	-	11.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.2

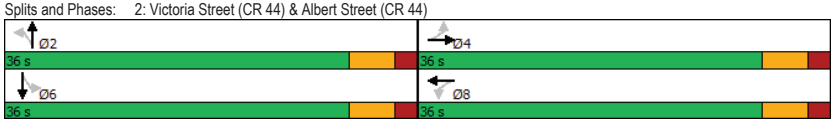
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	209	59	13	181	9	55	83	20	11	79	16
Future Volume (vph)	20	209	59	13	181	9	55	83	20	11	79	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	25.0		0.0	10.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			25.0			20.0			20.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00				1.00							
Frt		0.967			0.993			0.971			0.975	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1755	0	1467	1783	0	1770	1816	0	1656	1702	0
Flt Permitted	0.628			0.506			0.690			0.685		
Satd. Flow (perm)	1034	1755	0	782	1783	0	1285	1816	0	1194	1702	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			4			21			17	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		1202.8			672.4			129.2			785.2	
Travel Time (s)		86.6			48.4			9.3			56.5	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	15%	6%	0%	23%	6%	0%	2%	2%	0%	9%	8%	13%
Adj. Flow (vph)	22	227	64	14	197	10	60	90	22	12	86	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	291	0	14	207	0	60	112	0	12	103	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings
2: Victoria Street (CR 44) & Albert Street (CR 39)
Existing AM
611 Saulsbury Street, Strathroy TIA

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	9.0	9.0		9.0	9.0		9.0	9.0		9.0	9.0	
Flash Dont Walk (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	16.1	16.1		16.1	16.1		30.0	30.0		30.0	30.0	
Actuated g/C Ratio	0.28	0.28		0.28	0.28		0.52	0.52		0.52	0.52	
v/c Ratio	0.08	0.58		0.06	0.42		0.09	0.12		0.02	0.12	
Control Delay	16.1	21.7		16.1	19.7		8.2	6.9		7.7	7.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.1	21.7		16.1	19.7		8.2	6.9		7.7	7.1	
LOS	B	C		B	B		A	A		A	A	
Approach Delay		21.3			19.5			7.3			7.2	
Approach LOS		C			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 72			
Actuated Cycle Length: 58.1			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 15.9		Intersection LOS: B	
Intersection Capacity Utilization 39.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Victoria Street (CR 44) & Albert Street (CR 44)



Paradigm Transportation Solutions Limited
Synchro 11 Report

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	22	291	14	207	60	112	12	103
v/c Ratio	0.08	0.58	0.06	0.42	0.09	0.12	0.02	0.12
Control Delay	16.1	21.7	16.1	19.7	8.2	6.9	7.7	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.1	21.7	16.1	19.7	8.2	6.9	7.7	7.1
Queue Length 50th (m)	1.8	25.2	1.1	18.3	3.0	4.5	0.6	4.2
Queue Length 95th (m)	6.3	46.1	4.8	34.3	9.1	12.9	3.0	12.3
Internal Link Dist (m)		1178.8		648.4		105.2		761.2
Turn Bay Length (m)	40.0		25.0		10.0		15.0	
Base Capacity (vph)	534	918	403	922	663	948	616	887
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.32	0.03	0.22	0.09	0.12	0.02	0.12

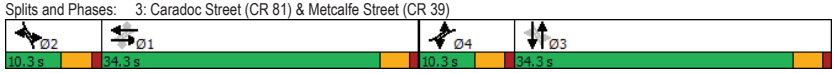
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	179	33	109	178	117	42	156	113	136	182	44
Future Volume (vph)	26	179	33	109	178	117	42	156	113	136	182	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	40.0		30.0	25.0		0.0	20.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	30.0			30.0			7.5			40.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	1.00		0.98	1.00				1.00	
Frt			0.850			0.850		0.937			0.971	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1671	1881	1568	1752	1827	1553	1805	1663	0	1736	1749	0
Flt Permitted	0.577			0.574			0.504			0.441		
Satd. Flow (perm)	1012	1881	1527	1054	1827	1515	955	1663	0	806	1749	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			121			127		44			15	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		127.6			377.9			203.8			203.0	
Travel Time (s)		9.2			27.2			14.7			14.6	
Confl. Peds. (#/hr)	3		4	4		3	3					3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	1%	3%	3%	4%	4%	0%	10%	3%	4%	5%	5%
Adj. Flow (vph)	28	195	36	118	193	127	46	170	123	148	198	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	195	36	118	193	127	46	293	0	148	246	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	1		4	1		2	3		2	3	
Permitted Phases	1		1	1		1	3			3		
Detector Phase	4	1	1	4	1	1	2	3		2	3	
Switch Phase												
Minimum Initial (s)	6.0	30.0	30.0	6.0	30.0	30.0	6.0	30.0		6.0	30.0	
Minimum Split (s)	10.3	34.3	34.3	10.3	34.3	34.3	10.3	34.3		10.3	34.3	
Total Split (s)	10.3	34.3	34.3	10.3	34.3	34.3	10.3	34.3		10.3	34.3	
Total Split (%)	11.5%	38.5%	38.5%	11.5%	38.5%	38.5%	11.5%	38.5%		11.5%	38.5%	
Maximum Green (s)	6.0	30.0	30.0	6.0	30.0	30.0	6.0	30.0		6.0	30.0	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3		4.3	4.3	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	Max	None		Max	None	
Walk Time (s)		20.0	20.0		20.0	20.0		18.0			18.0	
Flash Dont Walk (s)		10.0	10.0		10.0	10.0		10.0			10.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	36.0	30.0	30.0	36.0	30.0	30.0	36.0	30.0		36.0	30.0	
Actuated g/C Ratio	0.40	0.34	0.34	0.40	0.34	0.34	0.40	0.34		0.40	0.34	
v/c Ratio	0.06	0.31	0.06	0.25	0.31	0.21	0.10	0.50		0.38	0.41	
Control Delay	14.5	23.6	0.2	17.0	23.8	5.1	15.1	23.3		20.3	23.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	14.5	23.6	0.2	17.0	23.8	5.1	15.1	23.3		20.3	23.9	
LOS	B	C	A	B	C	A	B	C		C	C	
Approach Delay		19.4			16.5			22.2			22.6	
Approach LOS		B			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 89.2			
Actuated Cycle Length: 89.2			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay: 20.1		Intersection LOS: C	
Intersection Capacity Utilization 77.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Caradoc Street (CR 81) & Metcalfe Street (CR 39)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	28	195	36	118	193	127	46	293	148	246
v/c Ratio	0.06	0.31	0.06	0.25	0.31	0.21	0.10	0.50	0.38	0.41
Control Delay	14.5	23.6	0.2	17.0	23.8	5.1	15.1	23.3	20.3	23.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	23.6	0.2	17.0	23.8	5.1	15.1	23.3	20.3	23.9
Queue Length 50th (m)	2.7	25.7	0.0	12.1	25.5	0.0	4.5	35.0	15.5	31.5
Queue Length 95th (m)	7.5	43.4	0.0	22.6	43.1	11.8	10.6	59.8	27.6	52.8
Internal Link Dist (m)		103.6			353.9			179.8		179.0
Turn Bay Length (m)	35.0		30.0	40.0		30.0	25.0		20.0	
Base Capacity (vph)	452	632	593	472	614	593	442	588	387	598
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.31	0.06	0.25	0.31	0.21	0.10	0.50	0.38	0.41

Intersection Summary

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	35	38	31	137	94	65
Future Volume (vph)	35	38	31	137	94	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.930				0.945	
Flt Protected	0.977			0.991		
Satd. Flow (prot)	1640	0	0	1759	1734	0
Flt Permitted	0.977			0.991		
Satd. Flow (perm)	1640	0	0	1759	1734	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	213.8			785.2	104.2	
Travel Time (s)	15.4			56.5	7.5	
Confl. Peds. (#/hr)	7	3	3			3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	11%	0%	3%	8%	6%	0%
Adj. Flow (vph)	38	41	34	149	102	71
Shared Lane Traffic (%)						
Lane Group Flow (vph)	79	0	0	183	173	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	35	38	31	137	94	65
Future Vol, veh/h	35	38	31	137	94	65
Conflicting Peds, #/hr	7	3	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	11	0	3	8	6	0
Mvmt Flow	38	41	34	149	102	71

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	365	144	176	0	-	0
Stage 1	141	-	-	-	-	-
Stage 2	224	-	-	-	-	-
Critical Hdwy	6.51	6.2	4.13	-	-	-
Critical Hdwy Stg 1	5.51	-	-	-	-	-
Critical Hdwy Stg 2	5.51	-	-	-	-	-
Follow-up Hdwy	3.599	3.3	2.227	-	-	-
Pot Cap-1 Maneuver	617	909	1394	-	-	-
Stage 1	864	-	-	-	-	-
Stage 2	792	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	597	904	1390	-	-	-
Mov Cap-2 Maneuver	597	-	-	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	790	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1390	-	725	-	-
HCM Lane V/C Ratio	0.024	-	0.109	-	-
HCM Control Delay (s)	7.7	0	10.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	97	5	55	91	24	3	28	42	24	45	3
Future Volume (vph)	5	97	5	55	91	24	3	28	42	24	45	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.981			0.921			0.995	
Flt Protected		0.998			0.984			0.998			0.984	
Satd. Flow (prot)	0	1818	0	0	1751	0	0	1726	0	0	1813	0
Flt Permitted		0.998			0.984			0.998			0.984	
Satd. Flow (perm)	0	1818	0	0	1751	0	0	1726	0	0	1813	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		201.3			628.3			128.4			173.1	
Travel Time (s)		12.1			37.7			9.2			12.5	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	4%	0%	4%	2%	17%	0%	0%	2%	4%	2%	0%
Adj. Flow (vph)	5	105	5	60	99	26	3	30	46	26	49	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	115	0	0	185	0	0	79	0	0	78	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	33.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	97	5	55	91	24	3	28	42	24	45	3
Future Vol, veh/h	5	97	5	55	91	24	3	28	42	24	45	3
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	4	0	4	2	17	0	0	2	4	2	0
Mvmt Flow	5	105	5	60	99	26	3	30	46	26	49	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	127	0	0	110	0	0	376	365	108	390	354	114
Stage 1	-	-	-	-	-	-	118	118	-	234	234	-
Stage 2	-	-	-	-	-	-	258	247	-	156	120	-
Critical Hdwy	4.1	-	-	4.14	-	-	7.1	6.5	6.22	7.14	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.14	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.14	5.52	-
Follow-up Hdwy	2.2	-	-	2.236	-	-	3.5	4	3.318	3.536	4.018	3.3
Pot Cap-1 Maneuver	1472	-	-	1468	-	-	585	566	946	565	571	944
Stage 1	-	-	-	-	-	-	891	802	-	765	711	-
Stage 2	-	-	-	-	-	-	751	706	-	842	796	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1470	-	-	1468	-	-	523	538	946	495	542	942
Mov Cap-2 Maneuver	-	-	-	-	-	-	523	538	-	495	542	-
Stage 1	-	-	-	-	-	-	887	799	-	760	678	-
Stage 2	-	-	-	-	-	-	664	674	-	768	793	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	2.4	10.7	12.9
HCM LOS			B	B

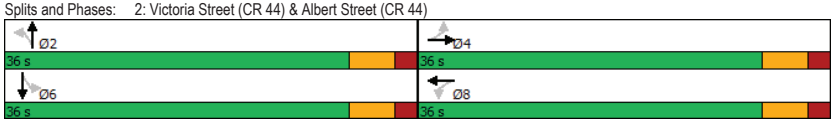
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	714	1470	-	-	1468	-	-	535
HCM Lane V/C Ratio	0.111	0.004	-	-	0.041	-	-	0.146
HCM Control Delay (s)	10.7	7.5	0	-	7.6	0	-	12.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	246	66	27	253	24	65	114	20	24	153	22
Future Volume (vph)	23	246	66	27	253	24	65	114	20	24	153	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	25.0		0.0	10.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			25.0			20.0			20.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99				1.00		1.00	1.00		0.99	1.00	
Frt		0.968			0.987			0.977			0.981	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1783	0	1805	1836	0	1805	1792	0	1736	1815	0
Flt Permitted	0.493			0.433			0.638			0.664		
Satd. Flow (perm)	892	1783	0	823	1836	0	1210	1792	0	1204	1815	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			8			15			12	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		1202.8			672.4			129.2			785.2	
Travel Time (s)		86.6			48.4			9.3			56.5	
Confl. Peds. (#/hr)	7					7	1		4	4		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	4%	0%	0%	2%	0%	0%	1%	15%	4%	2%	5%
Adj. Flow (vph)	25	267	72	29	275	26	71	124	22	26	166	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	25	339	0	29	301	0	71	146	0	26	190	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	9.0	9.0		9.0	9.0		9.0	9.0		9.0	9.0	
Flash Dont Walk (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	17.0	17.0		17.0	17.0		30.1	30.1		30.1	30.1	
Actuated g/C Ratio	0.29	0.29		0.29	0.29		0.51	0.51		0.51	0.51	
v/c Ratio	0.10	0.64		0.12	0.56		0.12	0.16		0.04	0.20	
Control Delay	16.0	23.2		16.6	21.9		9.1	8.1		8.6	8.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.0	23.2		16.6	21.9		9.1	8.1		8.6	8.8	
LOS	B	C		B	C		A	A		A	A	
Approach Delay		22.7			21.4			8.5			8.7	
Approach LOS		C			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 72			
Actuated Cycle Length: 59.1			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 16.9		Intersection LOS: B	
Intersection Capacity Utilization 62.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Victoria Street (CR 44) & Albert Street (CR 44)



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	25	339	29	301	71	146	26	190
v/c Ratio	0.10	0.64	0.12	0.56	0.12	0.16	0.04	0.20
Control Delay	16.0	23.2	16.6	21.9	9.1	8.1	8.6	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.0	23.2	16.6	21.9	9.1	8.1	8.6	8.8
Queue Length 50th (m)	2.1	30.8	2.4	27.9	3.5	6.7	1.3	9.3
Queue Length 95th (m)	6.8	54.0	7.7	48.7	11.4	18.4	5.4	23.7
Internal Link Dist (m)		1178.8		648.4		105.2		761.2
Turn Bay Length (m)	40.0		25.0		10.0		15.0	
Base Capacity (vph)	453	918	418	938	615	919	612	929
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.37	0.07	0.32	0.12	0.16	0.04	0.20

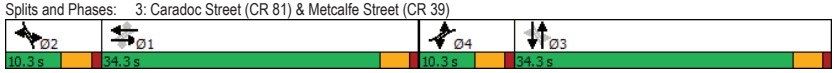
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	287	48	163	273	158	49	223	170	179	255	41
Future Volume (vph)	54	287	48	163	273	158	49	223	170	179	255	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	40.0		30.0	25.0		0.0	20.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	30.0			30.0			7.5			40.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.97	0.99		0.96	0.99	0.99		1.00	1.00	
Frt			0.850			0.850		0.935			0.979	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1881	1615	1770	1863	1599	1770	1705	0	1787	1821	0
Flt Permitted	0.436			0.416			0.403			0.272		
Satd. Flow (perm)	714	1881	1566	770	1863	1541	746	1705	0	511	1821	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			121			167		46			10	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		127.6			377.9			203.8			203.0	
Travel Time (s)		9.2			27.2			14.7			14.6	
Confl. Peds. (#/hr)	11		7	7		11	7		2	2		7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	15%	1%	0%	2%	2%	1%	2%	4%	2%	1%	2%	0%
Adj. Flow (vph)	59	312	52	177	297	172	53	242	185	195	277	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	59	312	52	177	297	172	53	427	0	195	322	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	1		4	1		2	3		2	3	
Permitted Phases	1		1	1		1	3			3		
Detector Phase	4	1	1	4	1	1	2	3		2	3	
Switch Phase												
Minimum Initial (s)	6.0	30.0	30.0	6.0	30.0	30.0	6.0	30.0		6.0	30.0	
Minimum Split (s)	10.3	34.3	34.3	10.3	34.3	34.3	10.3	34.3		10.3	34.3	
Total Split (s)	10.3	34.3	34.3	10.3	34.3	34.3	10.3	34.3		10.3	34.3	
Total Split (%)	11.5%	38.5%	38.5%	11.5%	38.5%	38.5%	11.5%	38.5%		11.5%	38.5%	
Maximum Green (s)	6.0	30.0	30.0	6.0	30.0	30.0	6.0	30.0		6.0	30.0	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3		4.3	4.3	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	Max	None		Max	None	
Walk Time (s)		20.0	20.0		20.0	20.0		18.0			18.0	
Flash Dont Walk (s)		10.0	10.0		10.0	10.0		10.0			10.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	36.0	30.0	30.0	36.0	30.0	30.0	36.0	30.0		36.0	30.0	
Actuated g/C Ratio	0.40	0.34	0.34	0.40	0.34	0.34	0.40	0.34		0.40	0.34	
v/c Ratio	0.17	0.49	0.09	0.47	0.47	0.27	0.14	0.71		0.67	0.52	
Control Delay	16.5	26.8	0.3	22.8	26.5	5.1	16.0	30.4		36.0	26.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	16.5	26.8	0.3	22.8	26.5	5.1	16.0	30.4		36.0	26.7	
LOS	B	C	A	C	C	A	B	C		D	C	
Approach Delay		22.1			19.8			28.8			30.2	
Approach LOS		C			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 89.2			
Actuated Cycle Length: 89.2			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 25.0		Intersection LOS: C	
Intersection Capacity Utilization 83.3%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 3: Caradoc Street (CR 81) & Metcalfe Street (CR 39)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	59	312	52	177	297	172	53	427	195	322
v/c Ratio	0.17	0.49	0.09	0.47	0.47	0.27	0.14	0.71	0.67	0.52
Control Delay	16.5	26.8	0.3	22.8	26.5	5.1	16.0	30.4	36.0	26.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.5	26.8	0.3	22.8	26.5	5.1	16.0	30.4	36.0	26.7
Queue Length 50th (m)	5.9	44.2	0.0	18.8	41.8	0.6	5.2	59.3	20.9	44.7
Queue Length 95th (m)	13.0	69.3	0.0	32.3	65.9	14.1	11.9	94.6	#38.5	70.9
Internal Link Dist (m)		103.6			353.9			179.8		179.0
Turn Bay Length (m)	35.0		30.0	40.0		30.0	25.0		20.0	
Base Capacity (vph)	345	632	606	378	626	629	369	603	292	619
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.49	0.09	0.47	0.47	0.27	0.14	0.71	0.67	0.52

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

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	70	60	63	136	183	58
Future Volume (vph)	70	60	63	136	183	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.938				0.968	
Flt Protected	0.974			0.985		
Satd. Flow (prot)	1736	0	0	1799	1760	0
Flt Permitted	0.974			0.985		
Satd. Flow (perm)	1736	0	0	1799	1760	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	213.8			785.2	104.2	
Travel Time (s)	15.4			56.5	7.5	
Confl. Peds. (#/hr)			6			6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	5%	5%	3%
Adj. Flow (vph)	76	65	68	148	199	63
Shared Lane Traffic (%)						
Lane Group Flow (vph)	141	0	0	216	262	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	70	60	63	136	183	58
Future Vol, veh/h	70	60	63	136	183	58
Conflicting Peds, #/hr	0	0	6	0	0	6
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	5	5	3
Mvmt Flow	76	65	68	148	199	63

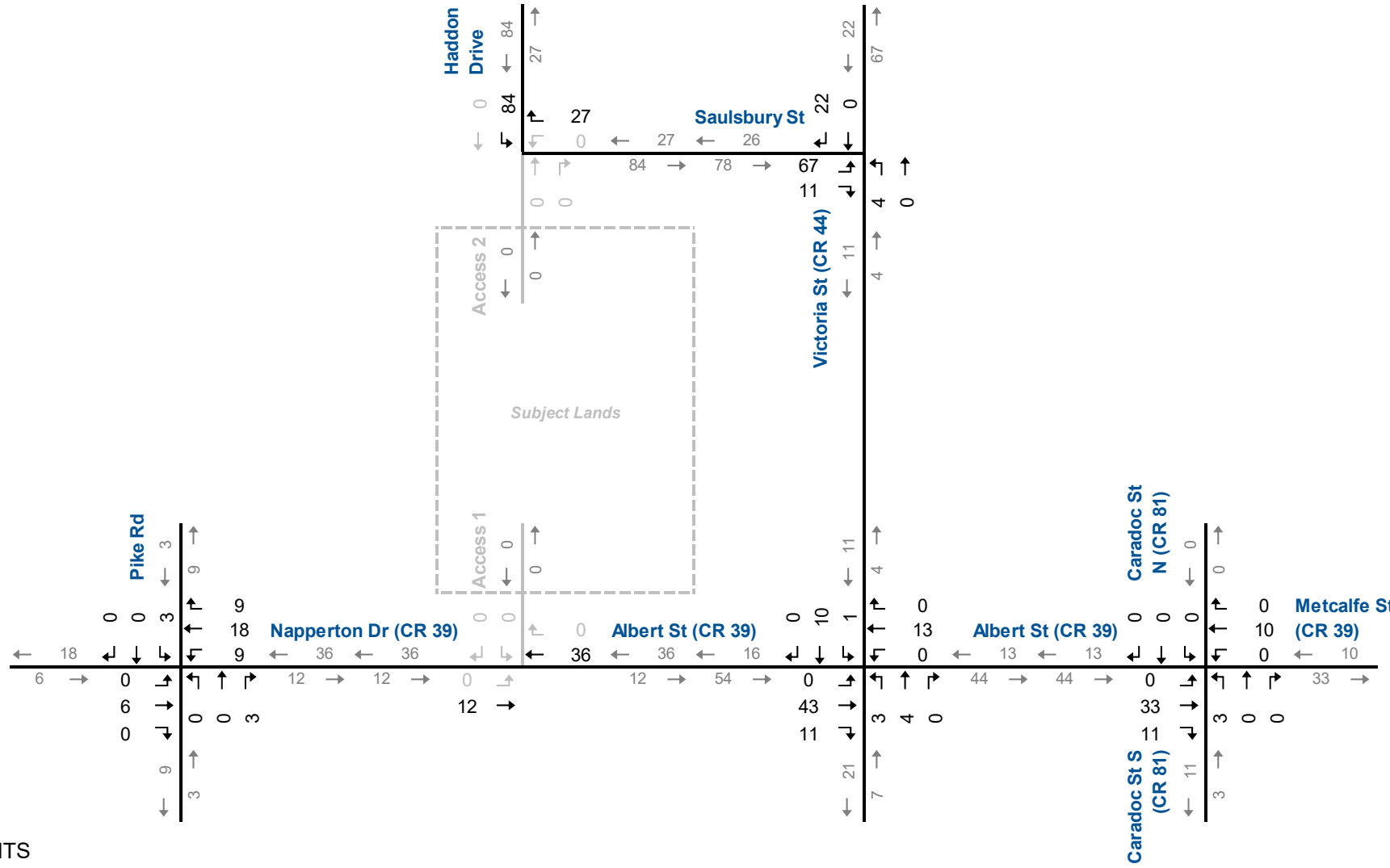
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	521	237	268	0	-	0
Stage 1	237	-	-	-	-	-
Stage 2	284	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.218	-	-	-
Pot Cap-1 Maneuver	519	807	1296	-	-	-
Stage 1	807	-	-	-	-	-
Stage 2	769	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	485	803	1289	-	-	-
Mov Cap-2 Maneuver	485	-	-	-	-	-
Stage 1	757	-	-	-	-	-
Stage 2	765	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13	2.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1289	-	593	-	-
HCM Lane V/C Ratio	0.053	-	0.238	-	-
HCM Control Delay (s)	8	0	13	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.9	-	-

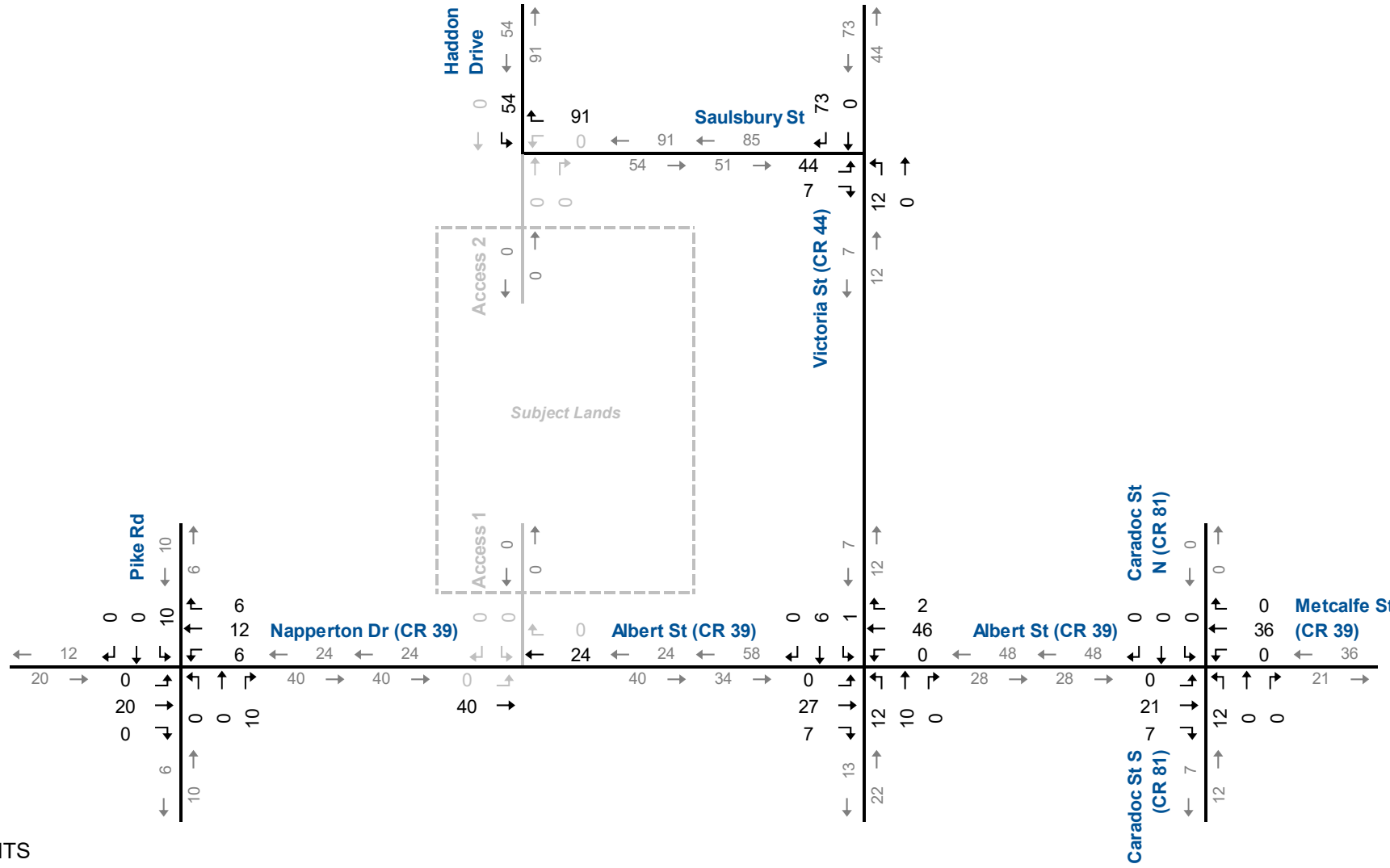
Appendix D

Other Area Development Traffic Volumes



NTS

Other Area Development Traffic Volumes
Cuddy Farm Lands
AM Peak Hour



NTS

Other Area Development Traffic Volumes
Cuddy Farm Lands
PM Peak Hour

Appendix E

2034 Background Traffic Operations Reports

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	124	3	45	95	25	5	38	42	28	19	6
Future Volume (vph)	6	124	3	45	95	25	5	38	42	28	19	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.980			0.932			0.984	
Flt Protected		0.998			0.986			0.997			0.975	
Satd. Flow (prot)	0	1856	0	0	1701	0	0	1717	0	0	1546	0
Flt Permitted		0.998			0.986			0.997			0.975	
Satd. Flow (perm)	0	1856	0	0	1701	0	0	1717	0	0	1546	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		201.3			628.3			128.4			173.1	
Travel Time (s)		12.1			37.7			9.2			12.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	4%	8%	15%	0%	3%	3%	30%	0%	20%
Adj. Flow (vph)	7	135	3	49	103	27	5	41	46	30	21	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	145	0	0	179	0	0	92	0	0	58	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 35.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	124	3	45	95	25	5	38	42	28	19	6
Future Vol, veh/h	6	124	3	45	95	25	5	38	42	28	19	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	4	8	15	0	3	3	30	0	20
Mvmt Flow	7	135	3	49	103	27	5	41	46	30	21	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	130	0	0	138	0	0	380	379	137	409	367	117
Stage 1	-	-	-	-	-	-	151	151	-	215	215	-
Stage 2	-	-	-	-	-	-	229	228	-	194	152	-
Critical Hdwy	4.1	-	-	4.14	-	-	7.1	6.53	6.23	7.4	6.5	6.4
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.53	-	6.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.53	-	6.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.236	-	-	3.5	4.027	3.327	3.77	4	3.48
Pot Cap-1 Maneuver	1468	-	-	1433	-	-	581	552	909	506	565	889
Stage 1	-	-	-	-	-	-	856	770	-	728	729	-
Stage 2	-	-	-	-	-	-	778	714	-	747	775	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1468	-	-	1433	-	-	542	529	909	438	541	889
Mov Cap-2 Maneuver	-	-	-	-	-	-	542	529	-	438	541	-
Stage 1	-	-	-	-	-	-	852	766	-	724	702	-
Stage 2	-	-	-	-	-	-	722	688	-	668	771	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	2.1	11.3	13.1
HCM LOS			B	B

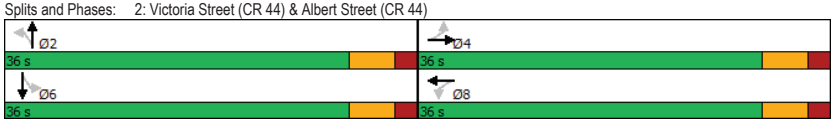
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	668	1468	-	-	1433	-	-	501
HCM Lane V/C Ratio	0.138	0.004	-	-	0.034	-	-	0.115
HCM Control Delay (s)	11.3	7.5	0	-	7.6	0	-	13.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	308	86	16	243	11	73	109	25	15	110	20
Future Volume (vph)	25	308	86	16	243	11	73	109	25	15	110	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	25.0		0.0	10.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			25.0			20.0			20.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00				1.00							
Frt		0.967			0.993			0.972			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1755	0	1467	1782	0	1770	1817	0	1656	1707	0
Flt Permitted	0.542			0.330			0.666			0.665		
Satd. Flow (perm)	892	1755	0	510	1782	0	1241	1817	0	1159	1707	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			4			20			16	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		1202.8			672.4			129.2			785.2	
Travel Time (s)		86.6			48.4			9.3			56.5	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	15%	6%	0%	23%	6%	0%	2%	2%	0%	9%	8%	13%
Adj. Flow (vph)	27	335	93	17	264	12	79	118	27	16	120	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	27	428	0	17	276	0	79	145	0	16	142	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	9.0	9.0		9.0	9.0		9.0	9.0		9.0	9.0	
Flash Dont Walk (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	20.1	20.1		20.1	20.1		30.2	30.2		30.2	30.2	
Actuated g/C Ratio	0.32	0.32		0.32	0.32		0.48	0.48		0.48	0.48	
v/c Ratio	0.09	0.74		0.10	0.48		0.13	0.16		0.03	0.17	
Control Delay	14.7	25.7		15.5	19.3		11.4	9.7		11.0	10.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.7	25.7		15.5	19.3		11.4	9.7		11.0	10.1	
LOS	B	C		B	B		B	A		B	B	
Approach Delay		25.0			19.1			10.3			10.2	
Approach LOS		C			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 72			
Actuated Cycle Length: 62.4			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 18.5		Intersection LOS: B	
Intersection Capacity Utilization 61.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Victoria Street (CR 44) & Albert Street (CR 44)



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	27	428	17	276	79	145	16	142
v/c Ratio	0.09	0.74	0.10	0.48	0.13	0.16	0.03	0.17
Control Delay	14.7	25.7	15.5	19.3	11.4	9.7	11.0	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.7	25.7	15.5	19.3	11.4	9.7	11.0	10.1
Queue Length 50th (m)	2.2	42.3	1.4	25.7	4.7	7.5	0.9	7.5
Queue Length 95th (m)	6.9	70.0	5.3	44.0	15.1	21.6	4.8	21.8
Internal Link Dist (m)		1178.8		648.4		105.2		761.2
Turn Bay Length (m)	40.0		25.0		10.0		15.0	
Base Capacity (vph)	431	862	246	864	600	889	561	834
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.50	0.07	0.32	0.13	0.16	0.03	0.17

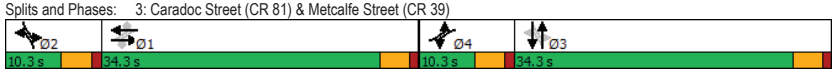
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	260	53	138	236	148	56	198	143	172	231	56
Future Volume (vph)	33	260	53	138	236	148	56	198	143	172	231	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	40.0		30.0	25.0		0.0	20.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	30.0			30.0			7.5			40.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	1.00		0.98	1.00				1.00	
Frt			0.850			0.850		0.937			0.971	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1671	1881	1568	1752	1827	1553	1805	1663	0	1736	1749	0
Flt Permitted	0.489			0.454			0.416			0.342		
Satd. Flow (perm)	857	1881	1527	834	1827	1515	788	1663	0	625	1749	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			121			161		44			15	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		127.6			377.9			203.8			203.0	
Travel Time (s)		9.2			27.2			14.7			14.6	
Confl. Peds. (#/hr)	3		4	4		3	3					3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	1%	3%	3%	4%	4%	0%	10%	3%	4%	5%	5%
Adj. Flow (vph)	36	283	58	150	257	161	61	215	155	187	251	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	36	283	58	150	257	161	61	370	0	187	312	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	1		4	1		2	3		2	3	
Permitted Phases	1		1	1		1	3			3		
Detector Phase	4	1	1	4	1	1	2	3		2	3	
Switch Phase												
Minimum Initial (s)	6.0	30.0	30.0	6.0	30.0	30.0	6.0	30.0		6.0	30.0	
Minimum Split (s)	10.3	34.3	34.3	10.3	34.3	34.3	10.3	34.3		10.3	34.3	
Total Split (s)	10.3	34.3	34.3	10.3	34.3	34.3	10.3	34.3		10.3	34.3	
Total Split (%)	11.5%	38.5%	38.5%	11.5%	38.5%	38.5%	11.5%	38.5%		11.5%	38.5%	
Maximum Green (s)	6.0	30.0	30.0	6.0	30.0	30.0	6.0	30.0		6.0	30.0	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3		4.3	4.3	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	Max	None		Max	None	
Walk Time (s)		20.0	20.0		20.0	20.0		18.0			18.0	
Flash Dont Walk (s)		10.0	10.0		10.0	10.0		10.0			10.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	36.0	30.0	30.0	36.0	30.0	30.0	36.0	30.0		36.0	30.0	
Actuated g/C Ratio	0.40	0.34	0.34	0.40	0.34	0.34	0.40	0.34		0.40	0.34	
v/c Ratio	0.09	0.45	0.10	0.38	0.42	0.26	0.16	0.63		0.57	0.52	
Control Delay	15.0	25.9	0.3	20.1	25.5	4.8	16.2	27.4		28.4	26.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	15.0	25.9	0.3	20.1	25.5	4.8	16.2	27.4		28.4	26.4	
LOS	B	C	A	C	C	A	B	C		C	C	
Approach Delay		20.9			18.2			25.8			27.2	
Approach LOS		C			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 89.2			
Actuated Cycle Length: 89.2			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 22.9		Intersection LOS: C	
Intersection Capacity Utilization 81.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Caradoc Street (CR 81) & Metcalfe Street (CR 39)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	36	283	58	150	257	161	61	370	187	312
v/c Ratio	0.09	0.45	0.10	0.38	0.42	0.26	0.16	0.63	0.57	0.52
Control Delay	15.0	25.9	0.3	20.1	25.5	4.8	16.2	27.4	28.4	26.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.0	25.9	0.3	20.1	25.5	4.8	16.2	27.4	28.4	26.4
Queue Length 50th (m)	3.5	39.4	0.0	15.7	35.3	0.0	6.0	48.8	20.0	42.5
Queue Length 95th (m)	9.0	62.6	0.4	27.8	57.3	13.2	13.3	79.7	34.2	68.4
Internal Link Dist (m)		103.6			353.9			179.8		179.0
Turn Bay Length (m)	35.0		30.0	40.0		30.0	25.0		20.0	
Base Capacity (vph)	400	632	593	398	614	616	386	588	326	598
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.45	0.10	0.38	0.42	0.26	0.16	0.63	0.57	0.52

Intersection Summary

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	111	59	43	174	119	104
Future Volume (vph)	111	59	43	174	119	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.953				0.937	
Flt Protected	0.968			0.990		
Satd. Flow (prot)	1635	0	0	1758	1725	0
Flt Permitted	0.968			0.990		
Satd. Flow (perm)	1635	0	0	1758	1725	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	213.8			785.2	104.2	
Travel Time (s)	15.4			56.5	7.5	
Confl. Peds. (#/hr)	7	3	3			3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	11%	0%	3%	8%	6%	0%
Adj. Flow (vph)	121	64	47	189	129	113
Shared Lane Traffic (%)						
Lane Group Flow (vph)	185	0	0	236	242	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	44.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	111	59	43	174	119	104
Future Vol, veh/h	111	59	43	174	119	104
Conflicting Peds, #/hr	7	3	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	11	0	3	8	6	0
Mvmt Flow	121	64	47	189	129	113

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	479	192	245	0	-	0
Stage 1	189	-	-	-	-	-
Stage 2	290	-	-	-	-	-
Critical Hdwy	6.51	6.2	4.13	-	-	-
Critical Hdwy Stg 1	5.51	-	-	-	-	-
Critical Hdwy Stg 2	5.51	-	-	-	-	-
Follow-up Hdwy	3.599	3.3	2.227	-	-	-
Pot Cap-1 Maneuver	529	855	1315	-	-	-
Stage 1	822	-	-	-	-	-
Stage 2	739	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	505	851	1312	-	-	-
Mov Cap-2 Maneuver	505	-	-	-	-	-
Stage 1	787	-	-	-	-	-
Stage 2	737	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.9	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1312	-	588	-	-
HCM Lane V/C Ratio	0.036	-	0.314	-	-
HCM Control Delay (s)	7.8	0	13.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1.3	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	143	6	76	127	36	4	36	63	40	57	4
Future Volume (vph)	6	143	6	76	127	36	4	36	63	40	57	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.980			0.917			0.995	
Flt Protected		0.998			0.984			0.998			0.981	
Satd. Flow (prot)	0	1818	0	0	1747	0	0	1718	0	0	1806	0
Flt Permitted		0.998			0.984			0.998			0.981	
Satd. Flow (perm)	0	1818	0	0	1747	0	0	1718	0	0	1806	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		201.3			628.3			128.4			173.1	
Travel Time (s)		12.1			37.7			9.2			12.5	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	4%	0%	4%	2%	17%	0%	0%	2%	4%	2%	0%
Adj. Flow (vph)	7	155	7	83	138	39	4	39	68	43	62	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	169	0	0	260	0	0	111	0	0	109	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	143	6	76	127	36	4	36	63	40	57	4
Future Vol, veh/h	6	143	6	76	127	36	4	36	63	40	57	4
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	4	0	4	2	17	0	0	2	4	2	0
Mvmt Flow	7	155	7	83	138	39	4	39	68	43	62	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	179	0	0	162	0	0	530	518	159	552	502	160
Stage 1	-	-	-	-	-	-	173	173	-	326	326	-
Stage 2	-	-	-	-	-	-	357	345	-	226	176	-
Critical Hdwy	4.1	-	-	4.14	-	-	7.1	6.5	6.22	7.14	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.14	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.14	5.52	-
Follow-up Hdwy	2.2	-	-	2.236	-	-	3.5	4	3.318	3.536	4.018	3.3
Pot Cap-1 Maneuver	1409	-	-	1405	-	-	463	465	886	441	471	890
Stage 1	-	-	-	-	-	-	834	760	-	682	648	-
Stage 2	-	-	-	-	-	-	665	640	-	772	753	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1407	-	-	1405	-	-	389	431	886	358	437	888
Mov Cap-2 Maneuver	-	-	-	-	-	-	389	431	-	358	437	-
Stage 1	-	-	-	-	-	-	830	756	-	677	604	-
Stage 2	-	-	-	-	-	-	555	596	-	672	749	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	2.5	12	17
HCM LOS			B	C

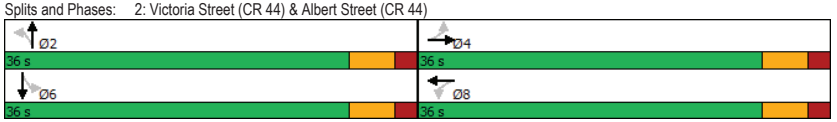
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	625	1407	-	-	1405	-	-	409
HCM Lane V/C Ratio	0.179	0.005	-	-	0.059	-	-	0.268
HCM Control Delay (s)	12	7.6	0	-	7.7	0	-	17
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.6	0	-	-	0.2	-	-	1.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	339	91	34	367	32	94	155	25	31	200	28
Future Volume (vph)	29	339	91	34	367	32	94	155	25	31	200	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	25.0		0.0	10.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			25.0			20.0			20.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99				1.00		1.00	1.00		0.99	1.00	
Frt		0.968			0.988			0.979			0.982	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1783	0	1805	1838	0	1805	1800	0	1736	1818	0
Flt Permitted	0.331			0.289			0.606			0.635		
Satd. Flow (perm)	601	1783	0	549	1838	0	1149	1800	0	1152	1818	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			8			14			12	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		1202.8			672.4			129.2			785.2	
Travel Time (s)		86.6			48.4			9.3			56.5	
Confl. Peds. (#/hr)	7					7	1		4	4		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	4%	0%	0%	2%	0%	0%	1%	15%	4%	2%	5%
Adj. Flow (vph)	32	368	99	37	399	35	102	168	27	34	217	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	32	467	0	37	434	0	102	195	0	34	247	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	9.0	9.0		9.0	9.0		9.0	9.0		9.0	9.0	
Flash Dont Walk (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	21.1	21.1		21.1	21.1		30.2	30.2		30.2	30.2	
Actuated g/C Ratio	0.33	0.33		0.33	0.33		0.48	0.48		0.48	0.48	
v/c Ratio	0.16	0.77		0.20	0.70		0.19	0.23		0.06	0.28	
Control Delay	16.2	26.9		17.4	24.6		12.5	11.2		11.5	11.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.2	26.9		17.4	24.6		12.5	11.2		11.5	11.9	
LOS	B	C		B	C		B	B		B	B	
Approach Delay		26.2			24.0			11.7			11.9	
Approach LOS		C			C			B			B	

Intersection Summary		
Area Type:	Other	
Cycle Length: 72		
Actuated Cycle Length: 63.4		
Natural Cycle: 60		
Control Type: Semi Act-Uncoord		
Maximum v/c Ratio: 0.77		
Intersection Signal Delay: 20.1		Intersection LOS: C
Intersection Capacity Utilization 68.3%		ICU Level of Service C
Analysis Period (min) 15		

Splits and Phases: 2: Victoria Street (CR 44) & Albert Street (CR 44)



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	32	467	37	434	102	195	34	247
v/c Ratio	0.16	0.77	0.20	0.70	0.19	0.23	0.06	0.28
Control Delay	16.2	26.9	17.4	24.6	12.5	11.2	11.5	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	26.9	17.4	24.6	12.5	11.2	11.5	11.9
Queue Length 50th (m)	2.7	47.7	3.2	44.5	6.6	11.9	2.1	15.9
Queue Length 95th (m)	8.3	77.7	9.4	71.6	19.0	29.7	8.0	38.0
Internal Link Dist (m)		1178.8		648.4		105.2		761.2
Turn Bay Length (m)	40.0		25.0		10.0		15.0	
Base Capacity (vph)	286	861	261	880	547	865	549	872
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.54	0.14	0.49	0.19	0.23	0.06	0.28

Intersection Summary

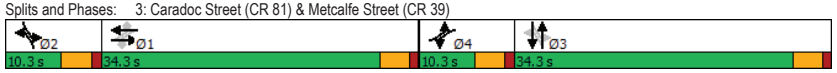
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	385	68	207	382	200	74	283	216	227	323	52
Future Volume (vph)	68	385	68	207	382	200	74	283	216	227	323	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	40.0		30.0	25.0		0.0	20.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	30.0			30.0			7.5			40.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.97	1.00		0.96	1.00	0.99		1.00	1.00	
Frt			0.850			0.850		0.935			0.979	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1881	1615	1770	1863	1599	1770	1705	0	1787	1821	0
Flt Permitted	0.287			0.283			0.295			0.134		
Satd. Flow (perm)	471	1881	1566	525	1863	1541	547	1705	0	252	1821	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			121			151		46			10	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		127.6			377.9			203.8			203.0	
Travel Time (s)		9.2			27.2			14.7			14.6	
Confl. Peds. (#/hr)	11		7	7		11	7		2	2		7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	15%	1%	0%	2%	2%	1%	2%	4%	2%	1%	2%	0%
Adj. Flow (vph)	74	418	74	225	415	217	80	308	235	247	351	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	418	74	225	415	217	80	543	0	247	408	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	1		4	1		2	3		2	3	
Permitted Phases	1		1	1		1	3			3		
Detector Phase	4	1	1	4	1	1	2	3		2	3	
Switch Phase												
Minimum Initial (s)	6.0	30.0	30.0	6.0	30.0	30.0	6.0	30.0		6.0	30.0	
Minimum Split (s)	10.3	34.3	34.3	10.3	34.3	34.3	10.3	34.3		10.3	34.3	
Total Split (s)	10.3	34.3	34.3	10.3	34.3	34.3	10.3	34.3		10.3	34.3	
Total Split (%)	11.5%	38.5%	38.5%	11.5%	38.5%	38.5%	11.5%	38.5%		11.5%	38.5%	
Maximum Green (s)	6.0	30.0	30.0	6.0	30.0	30.0	6.0	30.0		6.0	30.0	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3		4.3	4.3	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	Max	None		Max	None	
Walk Time (s)		20.0	20.0		20.0	20.0		18.0			18.0	
Flash Dont Walk (s)		10.0	10.0		10.0	10.0		10.0			10.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	36.0	30.0	30.0	36.0	30.0	30.0	36.0	30.0		36.0	30.0	
Actuated g/C Ratio	0.40	0.34	0.34	0.40	0.34	0.34	0.40	0.34		0.40	0.34	
v/c Ratio	0.28	0.66	0.12	0.76	0.66	0.35	0.26	0.90		1.21	0.66	
Control Delay	20.1	31.3	1.6	43.2	31.4	9.3	19.2	46.3		163.2	30.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	20.1	31.3	1.6	43.2	31.4	9.3	19.2	46.3		163.2	30.7	
LOS	C	C	A	D	C	A	B	D		F	C	
Approach Delay		26.0			28.9			42.8			80.7	
Approach LOS		C			C			D			F	

Intersection Summary

Area Type: Other
Cycle Length: 89.2
Actuated Cycle Length: 89.2
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.21
Intersection Signal Delay: 44.0 Intersection LOS: D
Intersection Capacity Utilization 91.6% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 3: Caradoc Street (CR 81) & Metcalfe Street (CR 39)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	74	418	74	225	415	217	80	543	247	408
v/c Ratio	0.28	0.66	0.12	0.76	0.66	0.35	0.26	0.90	1.21	0.66
Control Delay	20.1	31.3	1.6	43.2	31.4	9.3	19.2	46.3	163.2	30.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.1	31.3	1.6	43.2	31.4	9.3	19.2	46.3	163.2	30.7
Queue Length 50th (m)	7.4	63.6	0.0	24.6	63.1	8.2	8.0	85.4	~35.8	60.5
Queue Length 95th (m)	15.6	96.4	3.3	#51.2	95.9	25.1	16.3	#148.7	#86.0	93.1
Internal Link Dist (m)		103.6			353.9			179.8		179.0
Turn Bay Length (m)	35.0		30.0	40.0		30.0	25.0		20.0	
Base Capacity (vph)	264	632	606	295	626	618	303	603	204	619
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.66	0.12	0.76	0.66	0.35	0.26	0.90	1.21	0.66

Intersection Summary

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

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	133	83	92	172	232	147
Future Volume (vph)	133	83	92	172	232	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.948				0.948	
Flt Protected	0.970			0.983		
Satd. Flow (prot)	1747	0	0	1797	1728	0
Flt Permitted	0.970			0.983		
Satd. Flow (perm)	1747	0	0	1797	1728	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	213.8			785.2	104.2	
Travel Time (s)	15.4			56.5	7.5	
Confl. Peds. (#/hr)			6			6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	5%	5%	3%
Adj. Flow (vph)	145	90	100	187	252	160
Shared Lane Traffic (%)						
Lane Group Flow (vph)	235	0	0	287	412	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	133	83	92	172	232	147
Future Vol, veh/h	133	83	92	172	232	147
Conflicting Peds, #/hr	0	0	6	0	0	6
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	5	5	3
Mvmt Flow	145	90	100	187	252	160

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	725	338	418	0	-	0
Stage 1	338	-	-	-	-	-
Stage 2	387	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.218	-	-	-
Pot Cap-1 Maneuver	395	709	1141	-	-	-
Stage 1	727	-	-	-	-	-
Stage 2	691	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	353	705	1135	-	-	-
Mov Cap-2 Maneuver	353	-	-	-	-	-
Stage 1	652	-	-	-	-	-
Stage 2	688	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.4	3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1135	-	437	-	-
HCM Lane V/C Ratio	0.088	-	0.537	-	-
HCM Control Delay (s)	8.5	0	22.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	3.1	-	-

Appendix F

2034 Total Traffic Operations Reports

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	126	3	51	101	31	5	38	44	30	19	6
Future Volume (vph)	6	126	3	51	101	31	5	38	44	30	19	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.977			0.931			0.985	
Flt Protected		0.998			0.986			0.997			0.974	
Satd. Flow (prot)	0	1856	0	0	1693	0	0	1715	0	0	1538	0
Flt Permitted		0.998			0.986			0.997			0.974	
Satd. Flow (perm)	0	1856	0	0	1693	0	0	1715	0	0	1538	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		201.3			628.3			128.4			173.1	
Travel Time (s)		12.1			37.7			9.2			12.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	4%	8%	15%	0%	3%	3%	30%	0%	20%
Adj. Flow (vph)	7	137	3	55	110	34	5	41	48	33	21	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	147	0	0	199	0	0	94	0	0	61	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	126	3	51	101	31	5	38	44	30	19	6
Future Vol, veh/h	6	126	3	51	101	31	5	38	44	30	19	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	4	8	15	0	3	3	30	0	20
Mvmt Flow	7	137	3	55	110	34	5	41	48	33	21	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	144	0	0	140	0	0	404	407	139	434	391	127
Stage 1	-	-	-	-	-	-	153	153	-	237	237	-
Stage 2	-	-	-	-	-	-	251	254	-	197	154	-
Critical Hdwy	4.1	-	-	4.14	-	-	7.1	6.53	6.23	7.4	6.5	6.4
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.53	-	6.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.53	-	6.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.236	-	-	3.5	4.027	3.327	3.77	4	3.48
Pot Cap-1 Maneuver	1451	-	-	1431	-	-	561	532	907	487	548	877
Stage 1	-	-	-	-	-	-	854	769	-	708	713	-
Stage 2	-	-	-	-	-	-	758	695	-	745	774	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1451	-	-	1431	-	-	521	507	907	417	522	877
Mov Cap-2 Maneuver	-	-	-	-	-	-	521	507	-	417	522	-
Stage 1	-	-	-	-	-	-	850	765	-	704	683	-
Stage 2	-	-	-	-	-	-	699	666	-	664	770	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	2.1	11.4	13.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	654	1451	-	-	1431	-	-	478
HCM Lane V/C Ratio	0.145	0.004	-	-	0.039	-	-	0.125
HCM Control Delay (s)	11.4	7.5	0	-	7.6	0	-	13.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0.4

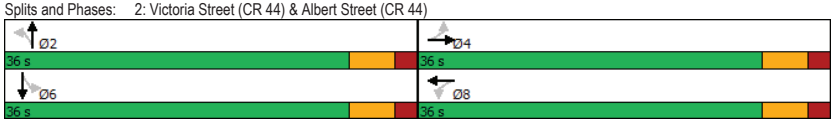
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	344	92	16	257	24	75	111	25	50	116	20
Future Volume (vph)	25	344	92	16	257	24	75	111	25	50	116	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	25.0		0.0	10.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			25.0			20.0			20.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00				1.00							
Frt		0.968			0.987			0.973			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1756	0	1467	1774	0	1770	1819	0	1656	1709	0
Flt Permitted	0.505			0.284			0.663			0.663		
Satd. Flow (perm)	832	1756	0	439	1774	0	1235	1819	0	1156	1709	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			8			19			15	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		1202.8			672.4			129.2			785.2	
Travel Time (s)		86.6			48.4			9.3			56.5	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	15%	6%	0%	23%	6%	0%	2%	2%	0%	9%	8%	13%
Adj. Flow (vph)	27	374	100	17	279	26	82	121	27	54	126	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	27	474	0	17	305	0	82	148	0	54	148	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings
2: Victoria Street (CR 44) & Albert Street (CR 39)
Total AM
611 Saulsbury Street, Strathroy TIA

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	9.0	9.0		9.0	9.0		9.0	9.0		9.0	9.0	
Flash Dont Walk (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	21.5	21.5		21.5	21.5		30.2	30.2		30.2	30.2	
Actuated g/C Ratio	0.34	0.34		0.34	0.34		0.47	0.47		0.47	0.47	
v/c Ratio	0.10	0.78		0.12	0.51		0.14	0.17		0.10	0.18	
Control Delay	14.5	27.7		15.7	19.2		12.1	10.4		11.9	10.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.5	27.7		15.7	19.2		12.1	10.4		11.9	10.9	
LOS	B	C		B	B		B	B		B	B	
Approach Delay		27.0			19.0			11.0			11.1	
Approach LOS		C			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 72			
Actuated Cycle Length: 63.8			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 19.5		Intersection LOS: B	
Intersection Capacity Utilization 63.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Victoria Street (CR 44) & Albert Street (CR 44)



Paradigm Transportation Solutions Limited
Synchro 11 Report

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	27	474	17	305	82	148	54	148
v/c Ratio	0.10	0.78	0.12	0.51	0.14	0.17	0.10	0.18
Control Delay	14.5	27.7	15.7	19.2	12.1	10.4	11.9	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	27.7	15.7	19.2	12.1	10.4	11.9	10.9
Queue Length 50th (m)	2.2	49.0	1.4	28.6	5.3	8.4	3.4	8.7
Queue Length 95th (m)	6.9	80.0	5.5	48.3	15.6	22.4	11.2	23.0
Internal Link Dist (m)		1178.8		648.4		105.2		761.2
Turn Bay Length (m)	40.0		25.0		10.0		15.0	
Base Capacity (vph)	394	844	207	844	585	871	547	817
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.56	0.08	0.36	0.14	0.17	0.10	0.18

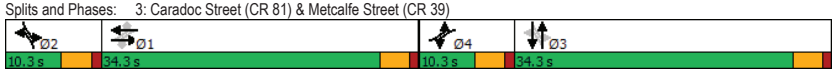
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	295	77	138	249	148	66	198	143	172	231	60
Future Volume (vph)	45	295	77	138	249	148	66	198	143	172	231	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	40.0		30.0	25.0		0.0	20.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	30.0			30.0			7.5			40.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	1.00		0.98	1.00				0.99	
Frt			0.850			0.850		0.937			0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1671	1881	1568	1752	1827	1553	1805	1663	0	1736	1745	0
Flt Permitted	0.470			0.405			0.411			0.342		
Satd. Flow (perm)	825	1881	1527	745	1827	1515	779	1663	0	625	1745	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			121			161		44			16	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		127.6			377.9			203.8			203.0	
Travel Time (s)		9.2			27.2			14.7			14.6	
Confl. Peds. (#/hr)	3		4	4		3	3					3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	1%	3%	3%	4%	4%	0%	10%	3%	4%	5%	5%
Adj. Flow (vph)	49	321	84	150	271	161	72	215	155	187	251	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	321	84	150	271	161	72	370	0	187	316	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	1		4	1		2	3		2	3	
Permitted Phases	1		1	1		1	3			3		
Detector Phase	4	1	1	4	1	1	2	3		2	3	
Switch Phase												
Minimum Initial (s)	6.0	30.0	30.0	6.0	30.0	30.0	6.0	30.0		6.0	30.0	
Minimum Split (s)	10.3	34.3	34.3	10.3	34.3	34.3	10.3	34.3		10.3	34.3	
Total Split (s)	10.3	34.3	34.3	10.3	34.3	34.3	10.3	34.3		10.3	34.3	
Total Split (%)	11.5%	38.5%	38.5%	11.5%	38.5%	38.5%	11.5%	38.5%		11.5%	38.5%	
Maximum Green (s)	6.0	30.0	30.0	6.0	30.0	30.0	6.0	30.0		6.0	30.0	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3		4.3	4.3	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	Max	None		Max	None	
Walk Time (s)		20.0	20.0		20.0	20.0		18.0			18.0	
Flash Dont Walk (s)		10.0	10.0		10.0	10.0		10.0			10.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	36.0	30.0	30.0	36.0	30.0	30.0	36.0	30.0		36.0	30.0	
Actuated g/C Ratio	0.40	0.34	0.34	0.40	0.34	0.34	0.40	0.34		0.40	0.34	
v/c Ratio	0.13	0.51	0.14	0.41	0.44	0.26	0.19	0.63		0.57	0.53	
Control Delay	15.6	27.1	2.3	21.3	25.9	4.8	16.7	27.4		28.4	26.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	15.6	27.1	2.3	21.3	25.9	4.8	16.7	27.4		28.4	26.5	
LOS	B	C	A	C	C	A	B	C		C	C	
Approach Delay		21.3			18.9			25.7			27.2	
Approach LOS		C			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 89.2			
Actuated Cycle Length: 89.2			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 23.1		Intersection LOS: C	
Intersection Capacity Utilization 81.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Caradoc Street (CR 81) & Metcalfe Street (CR 39)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	49	321	84	150	271	161	72	370	187	316
v/c Ratio	0.13	0.51	0.14	0.41	0.44	0.26	0.19	0.63	0.57	0.53
Control Delay	15.6	27.1	2.3	21.3	25.9	4.8	16.7	27.4	28.4	26.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	27.1	2.3	21.3	25.9	4.8	16.7	27.4	28.4	26.5
Queue Length 50th (m)	4.8	45.8	0.0	15.7	37.7	0.0	7.2	48.8	20.0	43.1
Queue Length 95th (m)	11.3	71.4	5.0	27.8	60.3	13.2	15.0	79.7	34.2	69.3
Internal Link Dist (m)		103.6			353.9			179.8		179.0
Turn Bay Length (m)	35.0		30.0	40.0		30.0	25.0		20.0	
Base Capacity (vph)	389	632	593	368	614	616	383	588	326	597
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.51	0.14	0.41	0.44	0.26	0.19	0.63	0.57	0.53

Intersection Summary

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	129	100	58	174	119	110
Future Volume (vph)	129	100	58	174	119	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.941				0.935	
Flt Protected	0.973			0.988		
Satd. Flow (prot)	1638	0	0	1759	1723	0
Flt Permitted	0.973			0.988		
Satd. Flow (perm)	1638	0	0	1759	1723	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	1221.7			785.2	104.2	
Travel Time (s)	88.0			56.5	7.5	
Confl. Peds. (#/hr)	7	3	3			3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	11%	0%	3%	8%	6%	0%
Adj. Flow (vph)	140	109	63	189	129	120
Shared Lane Traffic (%)						
Lane Group Flow (vph)	249	0	0	252	249	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.9%	ICU Level of Service	A
Analysis Period (min)	15		

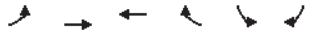
Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	129	100	58	174	119	110
Future Vol, veh/h	129	100	58	174	119	110
Conflicting Peds, #/hr	7	3	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	11	0	3	8	6	0
Mvmt Flow	140	109	63	189	129	120

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	514	195	252	0	-	0
Stage 1	192	-	-	-	-	-
Stage 2	322	-	-	-	-	-
Critical Hdwy	6.51	6.2	4.13	-	-	-
Critical Hdwy Stg 1	5.51	-	-	-	-	-
Critical Hdwy Stg 2	5.51	-	-	-	-	-
Follow-up Hdwy	3.599	3.3	2.227	-	-	-
Pot Cap-1 Maneuver	505	851	1307	-	-	-
Stage 1	819	-	-	-	-	-
Stage 2	715	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	475	847	1304	-	-	-
Mov Cap-2 Maneuver	475	-	-	-	-	-
Stage 1	772	-	-	-	-	-
Stage 2	713	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.5	2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1304	-	588	-	-
HCM Lane V/C Ratio	0.048	-	0.423	-	-
HCM Control Delay (s)	7.9	0	15.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	2.1	-	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	6	194	165	16	42	18
Future Volume (vph)	6	194	165	16	42	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.988		0.959	
Flt Protected		0.998			0.966	
Satd. Flow (prot)	0	1792	1749	0	1760	0
Flt Permitted		0.998			0.966	
Satd. Flow (perm)	0	1792	1749	0	1760	0
Link Speed (k/h)		50	60		50	
Link Distance (m)		628.3	1202.8		92.7	
Travel Time (s)		45.2	72.2		6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	6%	8%	0%	0%	0%
Adj. Flow (vph)	7	211	179	17	46	20
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	218	196	0	66	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	25.1%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	194	165	16	42	18
Future Vol, veh/h	6	194	165	16	42	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	6	8	0	0	0
Mvmt Flow	7	211	179	17	46	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	196	0	-	0	413	188
Stage 1	-	-	-	-	188	-
Stage 2	-	-	-	-	225	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1389	-	-	-	599	859
Stage 1	-	-	-	-	849	-
Stage 2	-	-	-	-	817	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1389	-	-	-	595	859
Mov Cap-2 Maneuver	-	-	-	-	595	-
Stage 1	-	-	-	-	844	-
Stage 2	-	-	-	-	817	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1389	-	-	-	655
HCM Lane V/C Ratio	0.005	-	-	-	0.1
HCM Control Delay (s)	7.6	0	-	-	11.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	21	27	0	59	84	0
Future Volume (vph)	21	27	0	59	84	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.925		0.865			
Flt Protected	0.978					0.950
Satd. Flow (prot)	1719	0	1644	0	0	1805
Flt Permitted	0.978					0.950
Satd. Flow (perm)	1719	0	1644	0	0	1805
Link Speed (k/h)	50		50			50
Link Distance (m)	1221.7		80.8			69.9
Travel Time (s)	88.0		5.8			5.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	23	29	0	64	91	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	52	0	64	0	0	91
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15		15	25	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	21.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	5.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	27	0	59	84	0
Future Vol, veh/h	21	27	0	59	84	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	23	29	0	64	91	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	214	32	0	0	64	0
Stage 1	32	-	-	-	-	-
Stage 2	182	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	779	1048	-	-	1551	-
Stage 1	996	-	-	-	-	-
Stage 2	854	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	733	1048	-	-	1551	-
Mov Cap-2 Maneuver	733	-	-	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	804	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	7.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	882	1551	-
HCM Lane V/C Ratio	-	-	0.059	0.059	-
HCM Control Delay (s)	-	-	9.3	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	149	6	80	131	40	4	36	69	46	57	4
Future Volume (vph)	6	149	6	80	131	40	4	36	69	46	57	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995			0.979			0.914			0.995	
Flt Protected		0.998			0.984			0.998			0.979	
Satd. Flow (prot)	0	1820	0	0	1743	0	0	1711	0	0	1801	0
Flt Permitted		0.998			0.984			0.998			0.979	
Satd. Flow (perm)	0	1820	0	0	1743	0	0	1711	0	0	1801	0
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		201.3			628.3			128.4			173.1	
Travel Time (s)		12.1			37.7			9.2			12.5	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	4%	0%	4%	2%	17%	0%	0%	2%	4%	2%	0%
Adj. Flow (vph)	7	162	7	87	142	43	4	39	75	50	62	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	176	0	0	272	0	0	118	0	0	116	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	149	6	80	131	40	4	36	69	46	57	4
Future Vol, veh/h	6	149	6	80	131	40	4	36	69	46	57	4
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	4	0	4	2	17	0	0	2	4	2	0
Mvmt Flow	7	162	7	87	142	43	4	39	75	50	62	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	187	0	0	169	0	0	551	541	166	577	523	166
Stage 1	-	-	-	-	-	-	180	180	-	340	340	-
Stage 2	-	-	-	-	-	-	371	361	-	237	183	-
Critical Hdwy	4.1	-	-	4.14	-	-	7.1	6.5	6.22	7.14	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.14	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.14	5.52	-
Follow-up Hdwy	2.2	-	-	2.236	-	-	3.5	4	3.318	3.536	4.018	3.3
Pot Cap-1 Maneuver	1399	-	-	1396	-	-	448	451	878	425	459	884
Stage 1	-	-	-	-	-	-	826	754	-	671	639	-
Stage 2	-	-	-	-	-	-	653	629	-	762	748	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1397	-	-	1396	-	-	374	416	878	340	424	883
Mov Cap-2 Maneuver	-	-	-	-	-	-	374	416	-	340	424	-
Stage 1	-	-	-	-	-	-	821	749	-	666	593	-
Stage 2	-	-	-	-	-	-	541	584	-	657	744	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	2.5	12.2	18.1
HCM LOS			B	C

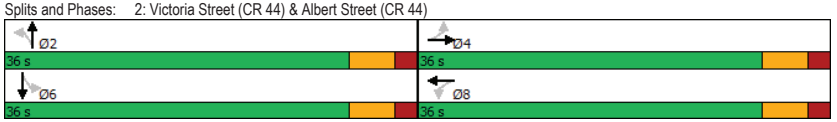
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	620	1397	-	-	1396	-	-	390
HCM Lane V/C Ratio	0.191	0.005	-	-	0.062	-	-	0.298
HCM Control Delay (s)	12.2	7.6	0	-	7.8	0	-	18.1
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.7	0	-	-	0.2	-	-	1.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	362	95	34	404	69	100	161	25	54	204	28
Future Volume (vph)	29	362	95	34	404	69	100	161	25	54	204	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	25.0		0.0	10.0		0.0	15.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			25.0			20.0			20.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99				0.99		1.00	1.00		0.99	1.00	
Frt		0.969			0.978			0.980			0.982	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1785	0	1805	1817	0	1805	1803	0	1736	1818	0
Flt Permitted	0.243			0.265			0.603			0.631		
Satd. Flow (perm)	442	1785	0	504	1817	0	1144	1803	0	1144	1818	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			15			13			12	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		1202.8			672.4			129.2			785.2	
Travel Time (s)		86.6			48.4			9.3			56.5	
Confl. Peds. (#/hr)	7					7	1		4	4		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	4%	0%	0%	2%	0%	0%	1%	15%	4%	2%	5%
Adj. Flow (vph)	32	393	103	37	439	75	109	175	27	59	222	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	32	496	0	37	514	0	109	202	0	59	252	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	9.0	9.0		9.0	9.0		9.0	9.0		9.0	9.0	
Flash Dont Walk (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	22.3	22.3		22.3	22.3		30.2	30.2		30.2	30.2	
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.47	0.47		0.47	0.47	
v/c Ratio	0.21	0.79		0.21	0.81		0.20	0.24		0.11	0.29	
Control Delay	18.0	27.7		17.6	29.1		13.2	11.9		12.3	12.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.0	27.7		17.6	29.1		13.2	11.9		12.3	12.6	
LOS	B	C		B	C		B	B		B	B	
Approach Delay		27.1			28.4			12.4			12.5	
Approach LOS		C			C			B			B	

Intersection Summary		
Area Type:	Other	
Cycle Length: 72		
Actuated Cycle Length: 64.6		
Natural Cycle: 60		
Control Type: Semi Act-Uncoord		
Maximum v/c Ratio: 0.81		
Intersection Signal Delay: 22.1		Intersection LOS: C
Intersection Capacity Utilization 68.3%		ICU Level of Service C
Analysis Period (min) 15		

Splits and Phases: 2: Victoria Street (CR 44) & Albert Street (CR 44)



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	32	496	37	514	109	202	59	252
v/c Ratio	0.21	0.79	0.21	0.81	0.20	0.24	0.11	0.29
Control Delay	18.0	27.7	17.6	29.1	13.2	11.9	12.3	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	27.7	17.6	29.1	13.2	11.9	12.3	12.6
Queue Length 50th (m)	2.8	52.1	3.2	55.4	7.6	13.4	4.0	17.5
Queue Length 95th (m)	8.8	84.8	9.6	88.9	20.2	30.9	12.1	38.8
Internal Link Dist (m)		1178.8		648.4		105.2		761.2
Turn Bay Length (m)	40.0		25.0		10.0		15.0	
Base Capacity (vph)	206	846	235	857	535	850	535	856
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.59	0.16	0.60	0.20	0.24	0.11	0.29

Intersection Summary

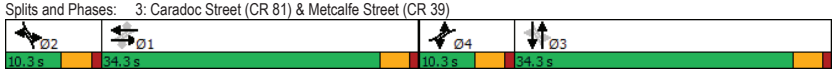
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	407	84	207	419	200	99	283	216	227	323	64
Future Volume (vph)	76	407	84	207	419	200	99	283	216	227	323	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	40.0		30.0	25.0		0.0	20.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	30.0			30.0			7.5			40.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.97	1.00		0.96	1.00	0.99		1.00	0.99	
Frt			0.850			0.850		0.935			0.975	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1881	1615	1770	1863	1599	1770	1705	0	1787	1813	0
Flt Permitted	0.238			0.254			0.279			0.134		
Satd. Flow (perm)	391	1881	1566	471	1863	1541	517	1705	0	252	1813	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			121			138		46			12	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		127.6			377.9			203.8			203.0	
Travel Time (s)		9.2			27.2			14.7			14.6	
Confl. Peds. (#/hr)	11		7	7		11	7		2	2		7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	15%	1%	0%	2%	2%	1%	2%	4%	2%	1%	2%	0%
Adj. Flow (vph)	83	442	91	225	455	217	108	308	235	247	351	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	442	91	225	455	217	108	543	0	247	421	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	1		4	1		2	3		2	3	
Permitted Phases	1		1	1		1	3			3		
Detector Phase	4	1	1	4	1	1	2	3		2	3	
Switch Phase												
Minimum Initial (s)	6.0	30.0	30.0	6.0	30.0	30.0	6.0	30.0		6.0	30.0	
Minimum Split (s)	10.3	34.3	34.3	10.3	34.3	34.3	10.3	34.3		10.3	34.3	
Total Split (s)	10.3	34.3	34.3	10.3	34.3	34.3	10.3	34.3		10.3	34.3	
Total Split (%)	11.5%	38.5%	38.5%	11.5%	38.5%	38.5%	11.5%	38.5%		11.5%	38.5%	
Maximum Green (s)	6.0	30.0	30.0	6.0	30.0	30.0	6.0	30.0		6.0	30.0	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3		4.3	4.3	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	Max	None		Max	None	
Walk Time (s)		20.0	20.0		20.0	20.0		18.0			18.0	
Flash Dont Walk (s)		10.0	10.0		10.0	10.0		10.0			10.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	36.0	30.0	30.0	36.0	30.0	30.0	36.0	30.0		36.0	30.0	
Actuated g/C Ratio	0.40	0.34	0.34	0.40	0.34	0.34	0.40	0.34		0.40	0.34	
v/c Ratio	0.35	0.70	0.15	0.81	0.73	0.36	0.37	0.90		1.21	0.68	
Control Delay	23.5	32.7	2.8	50.1	34.0	10.4	22.3	46.3		163.2	31.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	23.5	32.7	2.8	50.1	34.0	10.4	22.3	46.3		163.2	31.4	
LOS	C	C	A	D	C	B	C	D		F	C	
Approach Delay		27.0			32.3			42.3			80.2	
Approach LOS		C			C			D			F	

Intersection Summary

Area Type: Other
Cycle Length: 89.2
Actuated Cycle Length: 89.2
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.21
Intersection Signal Delay: 44.8 Intersection LOS: D
Intersection Capacity Utilization 91.6% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 3: Caradoc Street (CR 81) & Metcalfe Street (CR 39)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	83	442	91	225	455	217	108	543	247	421
v/c Ratio	0.35	0.70	0.15	0.81	0.73	0.36	0.37	0.90	1.21	0.68
Control Delay	23.5	32.7	2.8	50.1	34.0	10.4	22.3	46.3	163.2	31.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	32.7	2.8	50.1	34.0	10.4	22.3	46.3	163.2	31.4
Queue Length 50th (m)	8.4	68.3	0.0	24.6	71.2	9.9	11.0	85.4	~35.8	62.7
Queue Length 95th (m)	17.0	103.1	6.2	#55.1	107.3	27.2	20.9	#148.7	#86.0	96.5
Internal Link Dist (m)		103.6			353.9			179.8		179.0
Turn Bay Length (m)	35.0		30.0	40.0		30.0	25.0		20.0	
Base Capacity (vph)	237	632	606	277	626	609	292	603	204	617
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.70	0.15	0.81	0.73	0.36	0.37	0.90	1.21	0.68

Intersection Summary

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

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	145	110	135	172	232	165
Future Volume (vph)	145	110	135	172	232	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.942				0.944	
Flt Protected	0.972			0.978		
Satd. Flow (prot)	1740	0	0	1792	1722	0
Flt Permitted	0.972			0.978		
Satd. Flow (perm)	1740	0	0	1792	1722	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	1221.7			785.2	104.2	
Travel Time (s)	88.0			56.5	7.5	
Confl. Peds. (#/hr)			6			6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	5%	5%	3%
Adj. Flow (vph)	158	120	147	187	252	179
Shared Lane Traffic (%)						
Lane Group Flow (vph)	278	0	0	334	431	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	63.8%	ICU Level of Service	B
Analysis Period (min)	15		

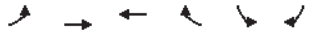
Intersection	
Int Delay, s/veh	10.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	145	110	135	172	232	165
Future Vol, veh/h	145	110	135	172	232	165
Conflicting Peds, #/hr	0	0	6	0	0	6
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	5	5	3
Mvmt Flow	158	120	147	187	252	179

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	829	348	437	0	-	0
Stage 1	348	-	-	-	-	-
Stage 2	481	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.218	-	-	-
Pot Cap-1 Maneuver	343	700	1123	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	626	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	289	696	1117	-	-	-
Mov Cap-2 Maneuver	289	-	-	-	-	-
Stage 1	610	-	-	-	-	-
Stage 2	623	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	34.8	3.8	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1117	-	386	-	-
HCM Lane V/C Ratio	0.131	-	0.718	-	-
HCM Control Delay (s)	8.7	0	34.8	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.5	-	5.5	-	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	18	246	239	43	27	12
Future Volume (vph)	18	246	239	43	27	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.979		0.958	
Flt Protected		0.997			0.967	
Satd. Flow (prot)	0	1826	1785	0	1760	0
Flt Permitted		0.997			0.967	
Satd. Flow (perm)	0	1826	1785	0	1760	0
Link Speed (k/h)		50	60		50	
Link Distance (m)		628.3	1202.8		92.7	
Travel Time (s)		45.2	72.2		6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	4%	5%	0%	0%	0%
Adj. Flow (vph)	20	267	260	47	29	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	287	307	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	100			100	100	100
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 37.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	246	239	43	27	12
Future Vol, veh/h	18	246	239	43	27	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	4	5	0	0	0
Mvmt Flow	20	267	260	47	29	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	307	0	-	0	591	284
Stage 1	-	-	-	-	284	-
Stage 2	-	-	-	-	307	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1265	-	-	-	473	760
Stage 1	-	-	-	-	769	-
Stage 2	-	-	-	-	751	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1265	-	-	-	464	760
Mov Cap-2 Maneuver	-	-	-	-	464	-
Stage 1	-	-	-	-	754	-
Stage 2	-	-	-	-	751	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	12.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1265	-	-	-	527
HCM Lane V/C Ratio	0.015	-	-	-	0.08
HCM Control Delay (s)	7.9	0	-	-	12.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	61	91	0	39	54	0
Future Volume (vph)	61	91	0	39	54	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.919		0.865			
Flt Protected	0.980					0.950
Satd. Flow (prot)	1711	0	1644	0	0	1805
Flt Permitted	0.980					0.950
Satd. Flow (perm)	1711	0	1644	0	0	1805
Link Speed (k/h)	50		50			50
Link Distance (m)	1221.7		80.8			69.9
Travel Time (s)	88.0		5.8			5.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	66	99	0	42	59	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	165	0	42	0	0	59
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	100	100		100	100	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	25.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	7.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	61	91	0	39	54	0
Future Vol, veh/h	61	91	0	39	54	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	66	99	0	42	59	0

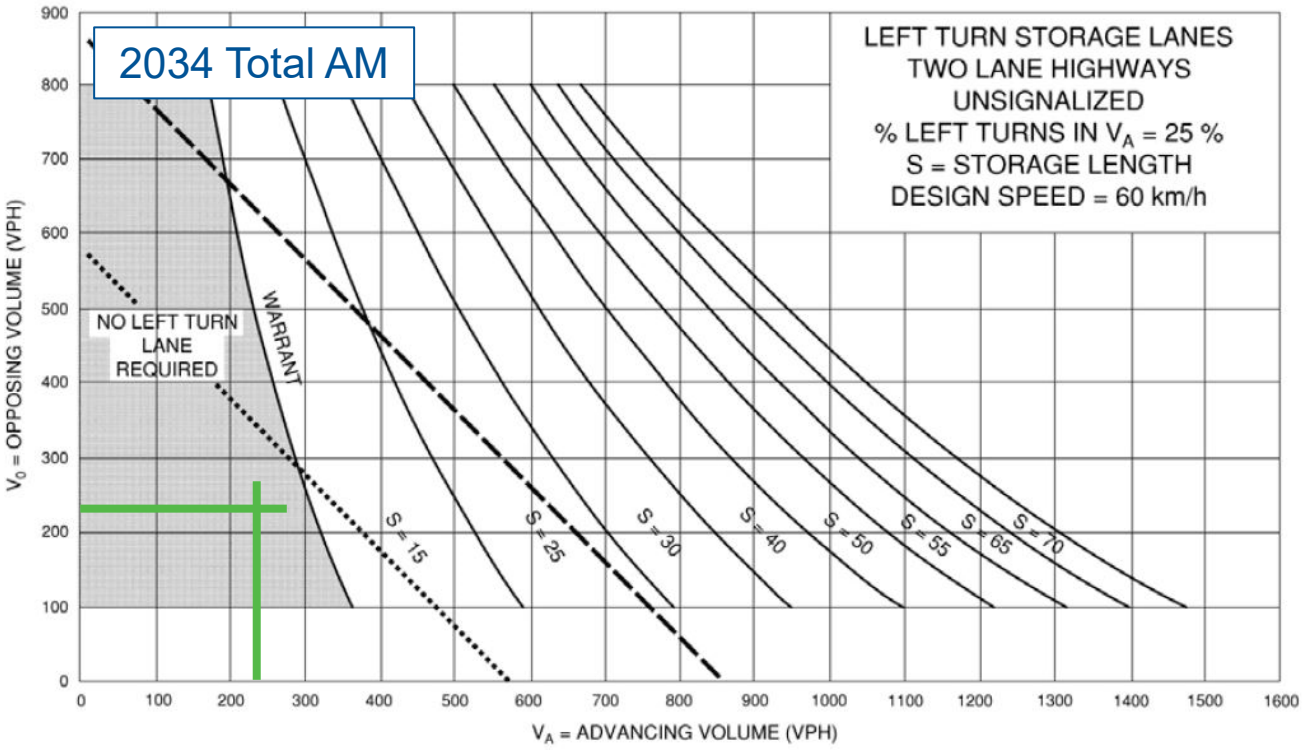
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	139	21	0	0	42	0
Stage 1	21	-	-	-	-	-
Stage 2	118	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	859	1062	-	-	1580	-
Stage 1	1007	-	-	-	-	-
Stage 2	912	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	827	1062	-	-	1580	-
Mov Cap-2 Maneuver	827	-	-	-	-	-
Stage 1	1007	-	-	-	-	-
Stage 2	878	-	-	-	-	-

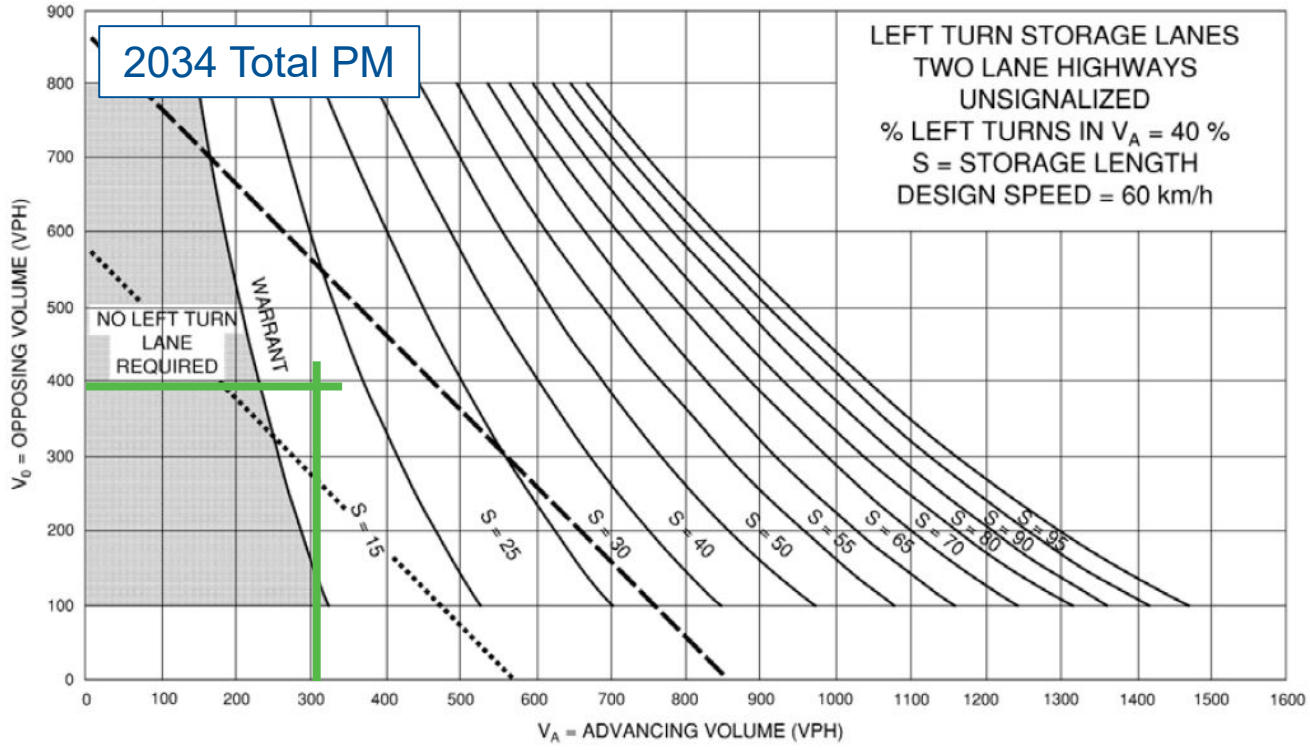
Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	7.4
HCM LOS	A		

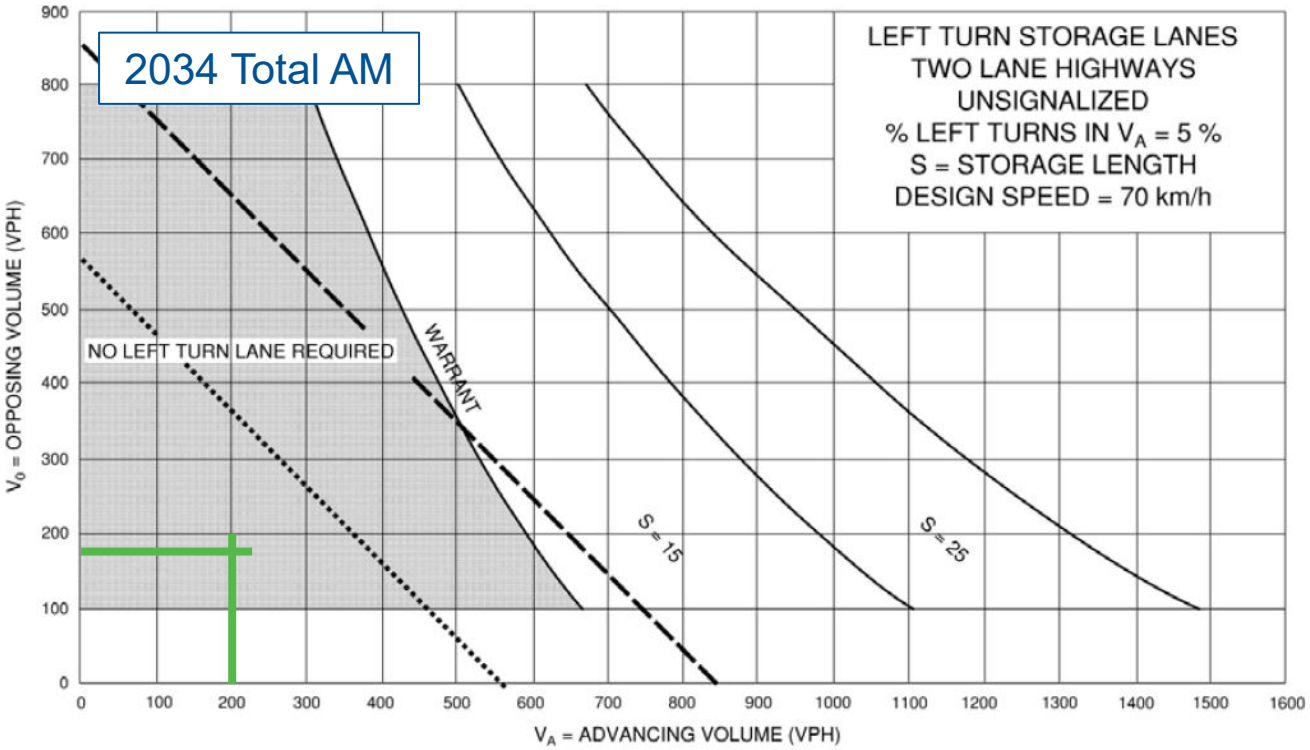
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	953	1580	-
HCM Lane V/C Ratio	-	-	0.173	0.037	-
HCM Control Delay (s)	-	-	9.6	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-

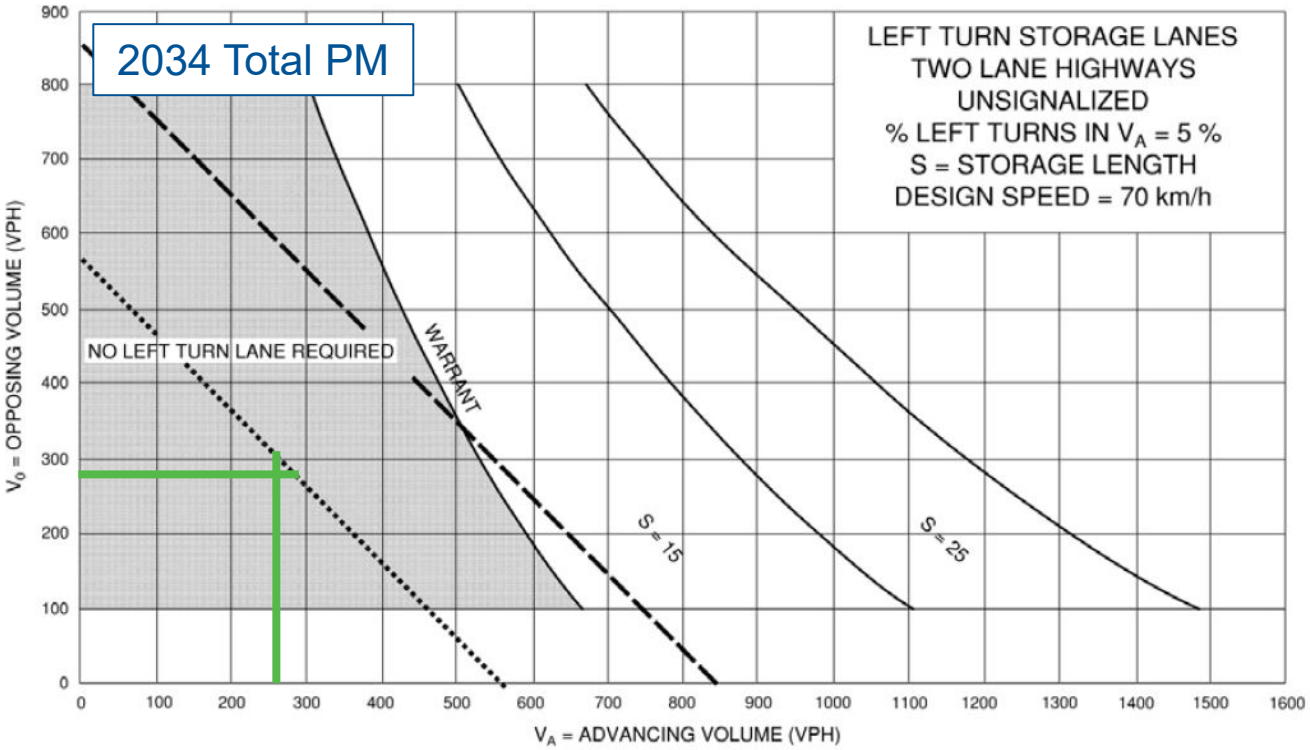
Appendix G

Left-Turn Lane Warrants


2034 Total AM
LEFT TURN STORAGE LANES
TWO LANE HIGHWAYS
UNSIGNALIZED
% LEFT TURNS IN V_A = 25 %
S = STORAGE LENGTH
DESIGN SPEED = 60 km/h
NO LEFT TURN LANE REQUIRED
WARRANT
S = 15
S = 25
S = 30
S = 40
S = 50
S = 55
S = 65
S = 70
V_0 = OPPOSING VOLUME (VPH)
V_A = ADVANCING VOLUME (VPH)


2034 Total PM
LEFT TURN STORAGE LANES
TWO LANE HIGHWAYS
UNSIGNALIZED
% LEFT TURNS IN V_A = 40 %
S = STORAGE LENGTH
DESIGN SPEED = 60 km/h
NO LEFT TURN LANE REQUIRED
WARRANT
S = 15
S = 25
S = 30
S = 40
S = 50
S = 55
S = 65
S = 70
S = 80
S = 90
S = 95
V_0 = OPPOSING VOLUME (VPH)
V_A = ADVANCING VOLUME (VPH)





Northbound Left-Turn Lane Warrants
Albert Street & Access 1