Complete Communities Secondary Plan

Transportation Background Report

Paradigm Transportation Solutions Limited

2025-09
230671

ptsl.com

Great Place To Work. Certified NOV 2023 - NOV 2024 CANADA

Project Summary

Project Number:

230671

Date and Version:

2025-09-22
1.1.0

Client:

Malone Given Parsons
140 Renfrew Drive #201
Markham, Ontario

Client Contact:

Matthew Cory
Principal

Consultant Project Team

Tom Willis, MMath
Wenting Li, P.Eng.

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

Complete Communities Secondary Plan: Transportation Background Report

Disclaimer

This document has been prepared for the titled project or named part thereof (the "project") and except for approval and commenting municipalities and agencies in their review and approval of this project, should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authorization of Paradigm Transportation Solutions Limited being obtained. Paradigm Transportation Solutions Limited accepts no responsibility or liability for the consequence of this document being used for a purpose other than the project for which it was commissioned. Any person using or relying on the document for such other purpose agrees and will by such use or reliance be taken to confirm their agreement to indemnify Paradigm Transportation Solutions Limited for all loss or damage resulting there from. Paradigm Transportation Solutions Limited accepts no responsibility or liability for this document to any party other than the person by whom it was commissioned and the approval and commenting municipalities and agencies for the project.

To the extent that this report is based on information supplied by other parties, Paradigm Transportation Solutions Limited accepts no liability for any loss or damage suffered by the client, whether through contract or tort, stemming from any conclusions based on data supplied by parties other than Paradigm Transportation Solutions Limited and used by Paradigm Transportation Solutions Limited in preparing this report.

© 1998 Paradigm Transportation Solutions Limited. All rights reserved.

Executive Summary

Study Context

Paradigm Transportation Solutions Limited (Paradigm) was retained to prepare the *Transportation Plan and Active Transportation Strategy* to inform the Town of East Gwillimbury *Complete Communities Secondary Plan*.

The study area includes lands within the Secondary Plan area and the area around it that could be significantly affected by changes to transportation demand. **Figure ES 1** illustrates the study area and the Secondary Plan area.

The overall goal of the *Transportation Plan and Active Transportation Strategy* is to evaluate and identify the elements of future transportation network that are required to accommodate growth in the Secondary Plan area.

The results of the study determine the planned roadway right-of-way, intersection control type and land configurations, and cross-section requirements for the 2051 horizon. Given the future urbanization of the area, this study also considers active transportation needs and provides recommendations, if needed.

This report contains the Transportation Background Report, which is part of the *Transportation Plan and Active Transportation Strategy*.

Planning Context

The transportation vision for the Secondary Plan area is informed and guided by relevant provincial, regional, and local planning documents and policies.

This study follows the guidelines and builds upon the work of the East Gwillimbury Transportation Master Plan, the York Region Transportation Master Plan, the East Gwillimbury Active Transportation and Trails Master Plan, and the Town and Regional Official Plans.

Land Use Concept Plan

The *Complete Communities Secondary Plan* area is composed of the Green Earth Village Community Design Plan (CDP), Holland Landing East CDP, Sharon East CDP, Sharon Heights CDP, Walnut Farms CDP, and Yonge Corridor CDP areas.

The current land use concept plan includes residential, mixed-use, employment, park, and school land uses. **Figure ES 2** illustrates the Draft Land Use Plan developed by MGP (March 2025).

Table ES 1 summarizes the population and employment growth of the Secondary Plan area by the CDP area. The draft land use plan proposes to add a total of 48,764 persons and 6,846 jobs in the Secondary Plan area.

Existing and Planned Transportation Conditions

Roads

The study area is connected by a grid-based road network, comprising of regional arterials, major collectors, minor collectors, collectors, and local roads.

All existing study area intersections and traffic movements are currently operating at acceptable levels of service and well within capacity. The exceptions include identified critical movements along several Yonge Street and Green Lane intersections. The northbound left-turn movement at Leslie Street and Green Lane is reported to operate exceeding capacity during the PM peak hour.

With the anticipated significant growth in the Secondary Plan area, more vehicle trips will be generated to/from the study area, adding pressure on the Town's existing road network. The Town and Region have proposed new roads to increase road connectivity and capacity for future growth. These new roads present opportunities to implement appropriate road cross-sections and intersection configurations to help relieve existing/anticipated traffic constraints on the road network. **Figure ES 3** illustrates the planned road network.

Transit

The study area is currently served by York Region Transit (YRT) and GO Transit services. Specifically, five local YRT routes, Mobility On-Request service, one GO Train rail line, and two GO Bus routes operate within or adjacent to the study area.

With a planned population and employment growth, the current transit service is expected to expand and improve to enhance connectivity and service to better serve future demand in the Secondary Plan area. It is understood York Region Transit, Town of East Gwillimbury, York Region, and other related parties will continue working to develop and implement an appropriate transit system serving the needs of the Secondary Plan area.

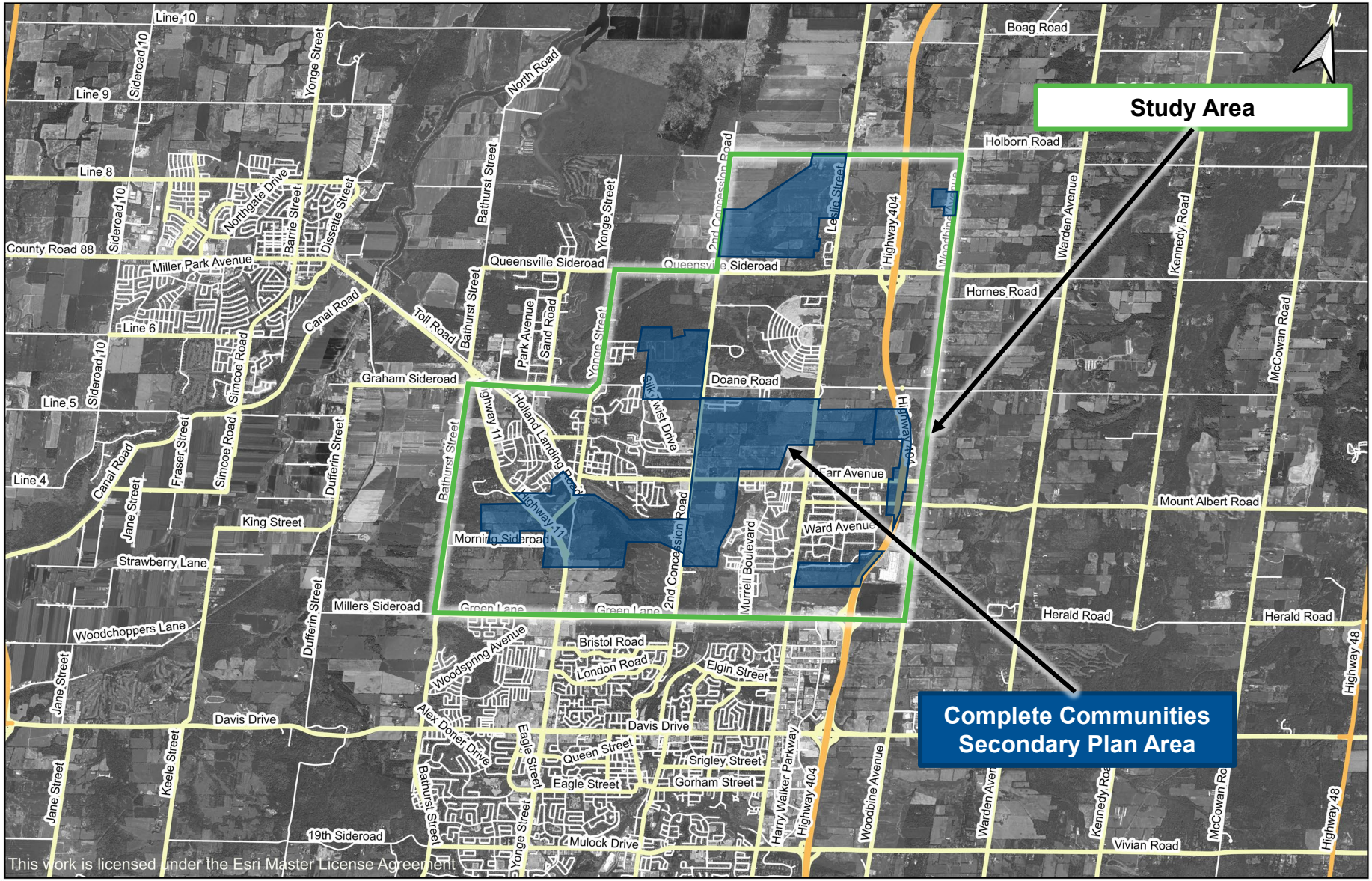
Metrolinx is currently working to upgrade the Barrie GO Line service to 15-minute, two-way, all-day service. While the timeline of this improvement is unknown, the upgrade is expected to provide more frequent and expanded GO service for residents and employees within the Secondary Plan area. The completion/operation of Barrie GO line expansion will further improve transit opportunities and leverage inter-regional transit use.

Active Transportation

Cycling activities are currently facilitated by the designated or shared cycling infrastructure on Green Lane, Mt. Albert Road, Murrell Boulevard, and 2nd Concession Road. The remaining study area roadways do not provide designated or shared cycling facilities, requiring cycling trips to be accommodated within the travelled sections of the existing roadways or paved shoulders, if available.

Sidewalks are mostly provided on local roads within the existing communities of Holland Landing, Queensville, and Sharon. Discontinuous sidewalks are provided on several regional roads, such as Yonge Street, Mt. Albert Road, Green Lane, 2nd Concession Road, and Leslie Street. Several gaps are identified in the existing pedestrian infrastructure which do not connect the communities within the study area.

Figure ES 4 and **Figure ES 5** illustrate the proposed 2051 cycling and sidewalk network based on the Town of East Gwillimbury TMP Update (September 2024), respectively. The planned active transportation network illustrates a connected network to serve pedestrians and cyclists both within and between the Town's community areas.

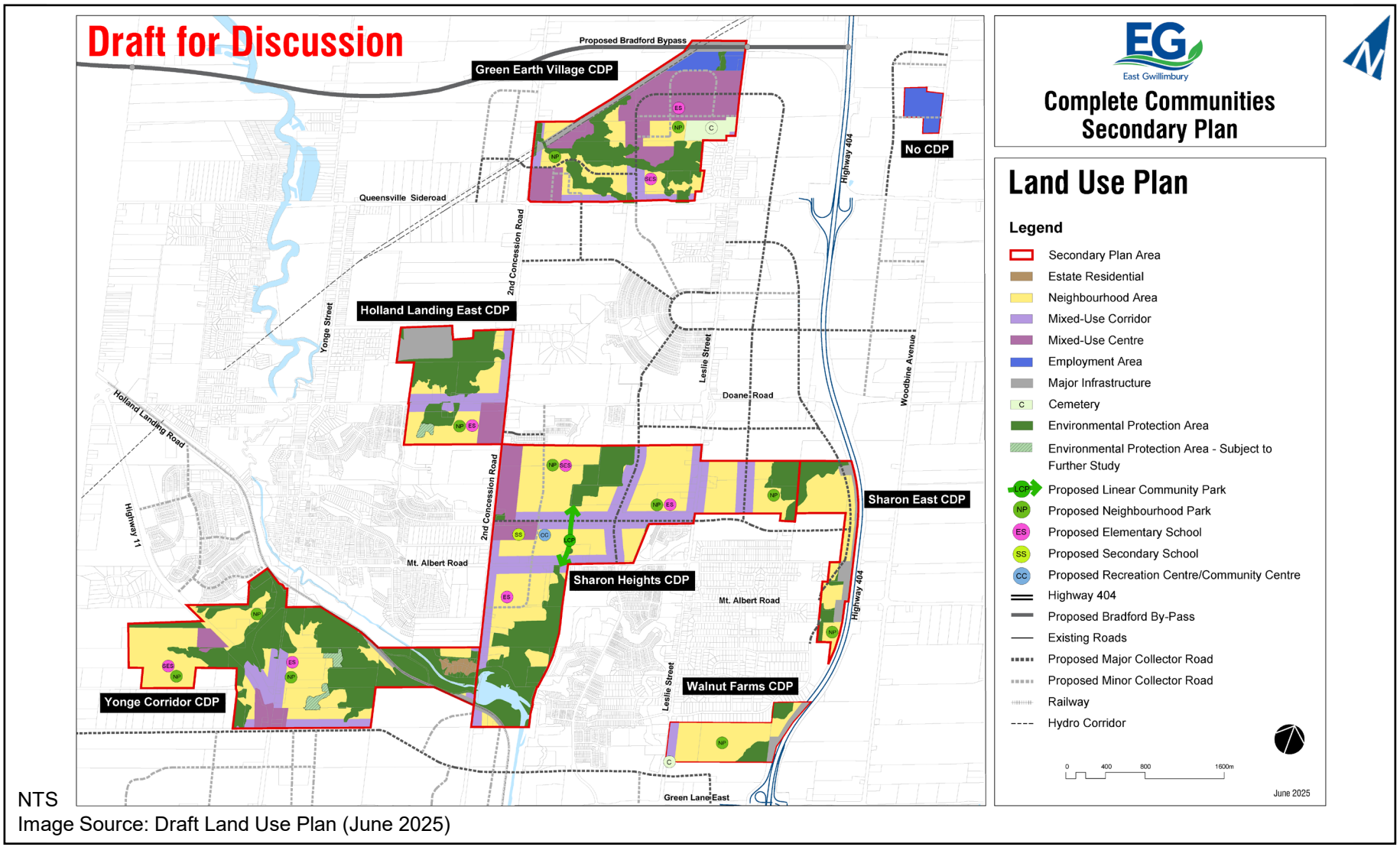


paradigm TRANSPORTATION SOLUTIONS LIMITED

Study Area and Secondary Plan Area

East Gwillimbury Complete Communities Secondary Plan, Transportation Background Report
230671

Figure ES 1



NTS

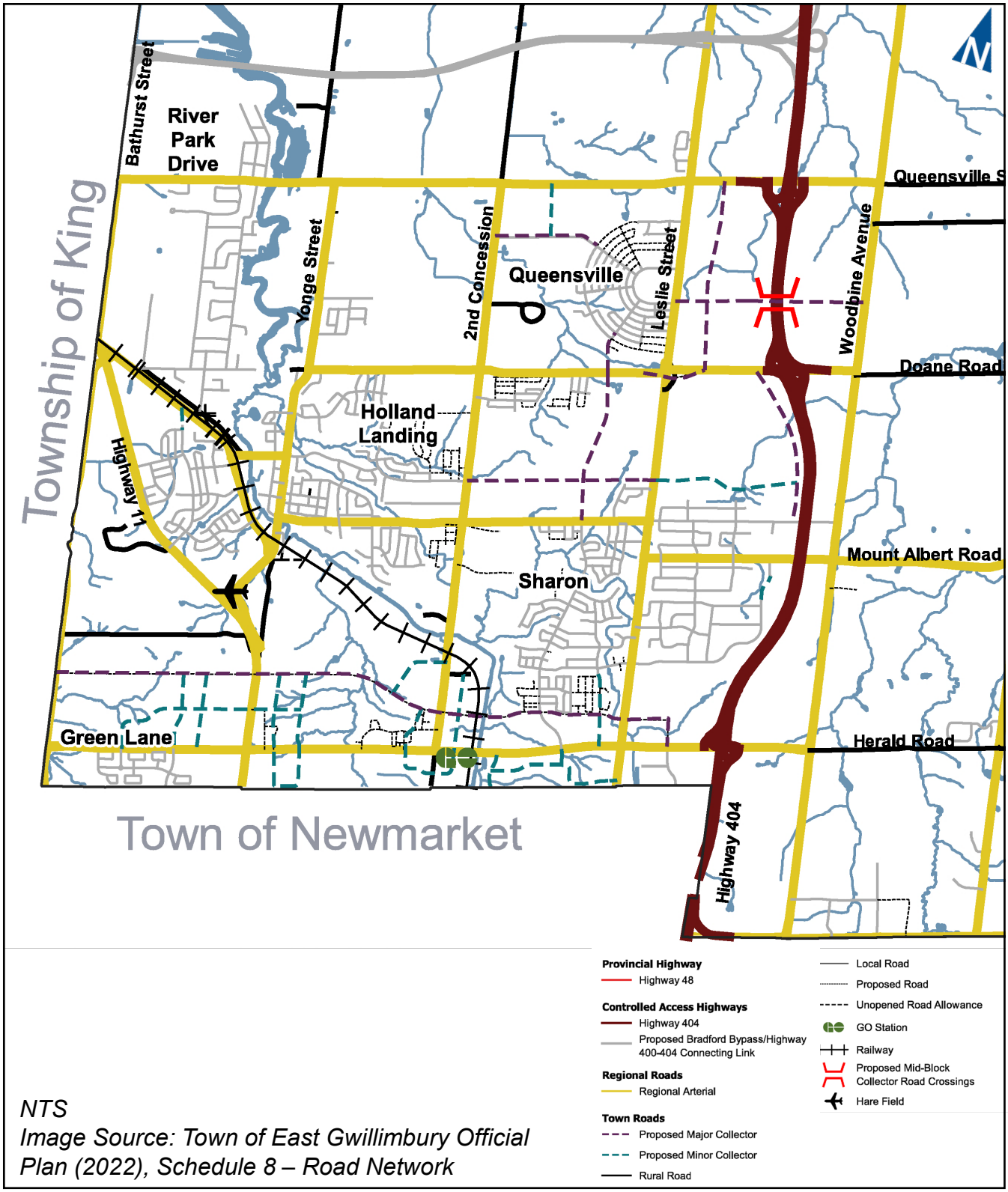
Image Source: Draft Land Use Plan (June 2025)

paradigm TRANSPORTATION SOLUTIONS LIMITED

Draft Land Use Plan

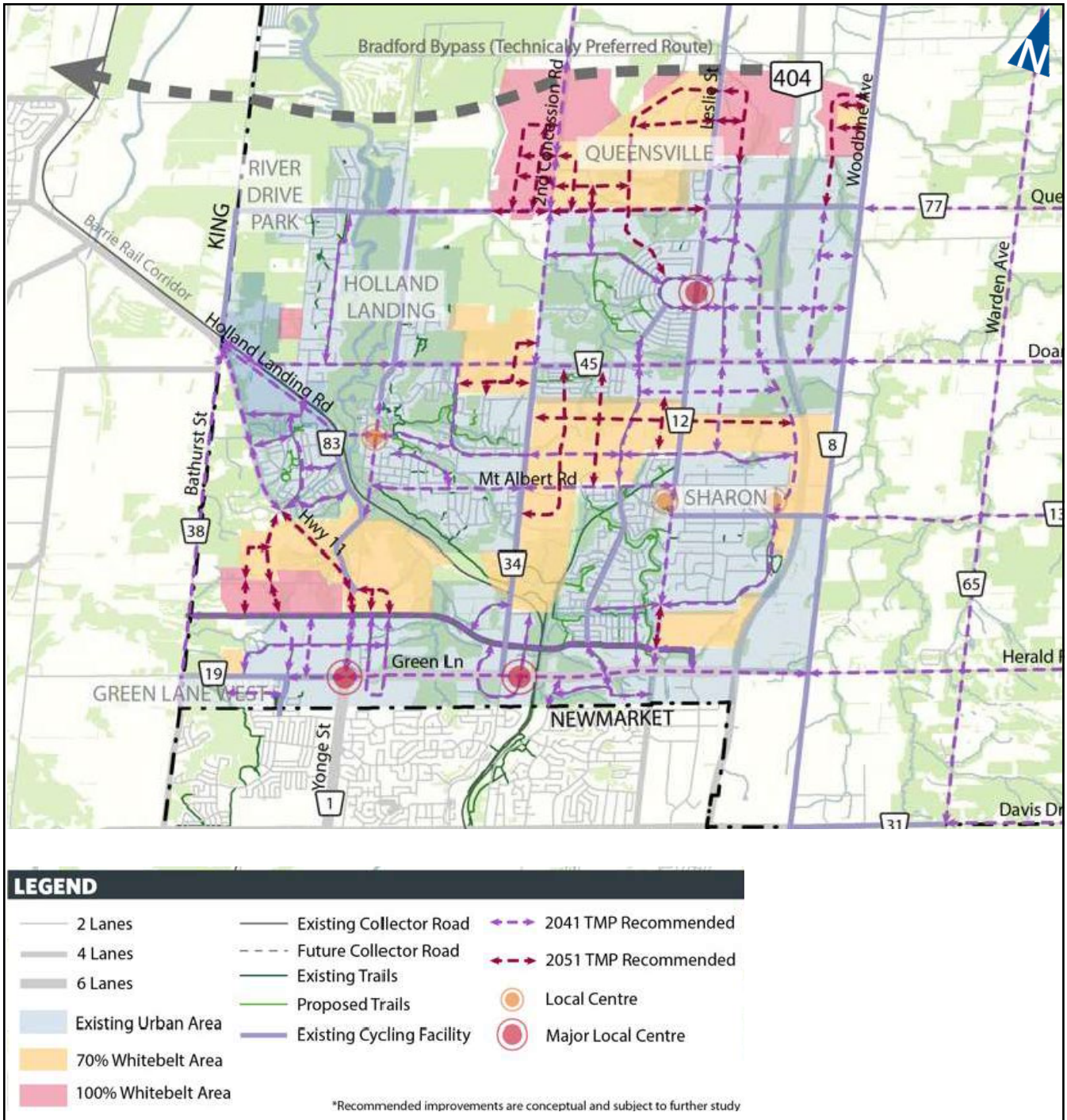
TABLE ES 1: PROPOSED POPULATION AND EMPLOYMENT GROWTH

CDP Area	Population	Employment
Green Earth Village	11,255	1,905
Holland Landing East	3,865	579
Sharon Heights	20,046	2,289
Sharon East	2,001	171
Walnut Farms	2,724	229
Yonge Corridor	8,873	1,065
Employment Area- No CDP	0	609
Total	***48,764***	***6,846***



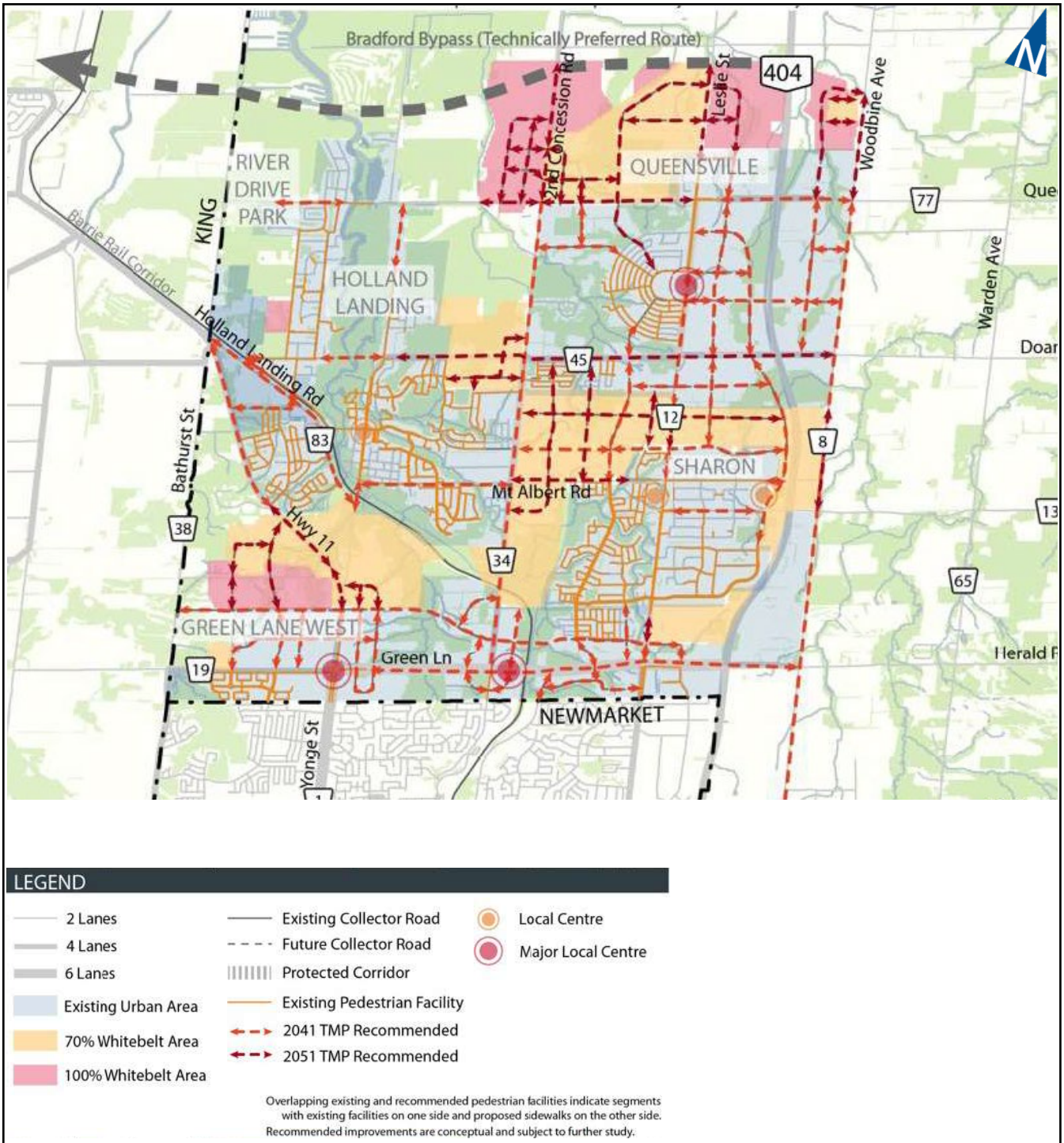
NTS
Image Source: Town of East Gwillimbury Official Plan (2022), Schedule 8 – Road Network

Planned Road Network



NTS
Image Source: Town of East Gwillimbury Transportation Master Plan Update (September 2024), Figure 8-3: Proposed 2051 Cycling Network

Planned Cycling Network



NTS

Image Source: Town of East Gwillimbury Transportation Master Plan Update (September 2024), Figure 8-2: Proposed 2051 Sidewalk Network

Planned Sidewalk Network

Contents

1 Study Overview 1

1.1 Introduction 1
1.2 Background 1
1.3 Study Area 2
1.4 Study Goals and Objectives 7
1.5 Study Methodology 8
1.6 Data Sources 9

2 Planning and Policy Context 10

2.1 Provincial Planning Context 10
2.1.1 Provincial Policy Statement (2024) 10
2.1.2 Bill 185 / Parking Rates 11
2.2 York Region Planning Context 12
2.2.1 2022 Regional Official Plan 12
2.2.2 2022 York Region Transportation Master Plan 13
2.3 Town of East Gwillimbury Planning Context 14
2.3.1 Official Plan (October 2018 Consolidation) 14
2.3.2 Updated Official Plan (June 2022) 15
2.3.3 *Complete Communities Secondary Plan* (*ongoing*) 15
2.3.4 Transportation Master Plan Update (September 2024) 16
2.3.5 Active Transportation and Trails Master Plan (June 2012) 16

3 Land Use Concept Plan 18

4 Existing and Planned Transportation Conditions 22

4.1 Existing Travel Patterns 22
4.1.1 Why – Trip Purpose 22
4.1.2 Where – Origin and Destination 24
4.1.3 How – Mode of Travel 29
4.1.4 When – Time of Travel 30
4.2 Roads and Traffic Control 31
4.2.1 Existing Conditions 31
4.2.2 Planned Improvements 32
4.3 Transit 38
4.3.1 Existing Conditions 38
4.3.2 Planned Improvements 41
4.4 Active Transportation 41
4.4.1 Existing Conditions 41
4.4.2 Planned Improvements 42
4.5 Traffic Volumes 47
4.6 Traffic Operations 51

5 Needs and Opportunities 58

5.1 Roads 58

5.2 Transit 58
5.3 Active Transportation 59

Appendices

Appendix A Turning Movement Counts
Appendix B Growth Rates Calculations
Appendix C Signal Timing Plans
Appendix D Base Year (2024) Traffic Operations Reports

Figures

Figure ES 1: Study Area and Secondary Plan Area.....iv
Figure ES 2: Draft Land Use Plan.....v
Figure ES 3: Planned Road Network.....vii
Figure ES 4: Planned Cycling Network.....viii
Figure ES 5: Planned Sidewalk Network.....ix
Figure 1.1: Study Area and Secondary Plan Area.....3
Figure 1.2: Study Area Intersections 4
Figure 3.1: Draft Land Use Plan.....19
Figure 3.2: Traffic Analysis Zones 20
Figure 4.1: Purpose of Trips to East Gwillimbury by Origin 23
Figure 4.2: Trips to Study Area (All Purposes) - AM Peak Period 25
Figure 4.3: Trips from Study Area (All Purposes) - AM Peak Period 26
Figure 4.4: Trips to Study Area (All Purposes) - PM Peak Period 27
Figure 4.5: Trips from Study Area (All Purposes) - PM Peak Period 28
Figure 4.6: Mode Split by Destination.....29
Figure 4.7: Trip Start Time For Outbound Trips.....30
Figure 4.8: Trip Start Time For Inbound Trips.....31
Figure 4.9: Existing Traffic Control Methods 34
Figure 4.10: Planned Road Network.....35
Figure 4.11: Existing Transit Service 40
Figure 4.12: Existing Cycling Network.....43
Figure 4.13: Existing Sidewalk Network 44
Figure 4.14: Planned Cycling Network.....45
Figure 4.15: Planned Sidewalk Network 46
Figure 4.16: Base Year (2024) AM Peak Hour Traffic Volumes 49
Figure 4.17: Base Year (2024) PM Peak Hour Traffic Volumes 50

Tables

Table ES 1: Proposed Population and Employment Forecasts ..vi
Table 1.1: Study Area Intersections 5
Table 3.1: Proposed Population and Employment Growth 21
Table 3.2: Population and Employment Forecasts Comparison... 21
Table 4.1: Road Characteristics.....33
Table 4.2: Planned Road Network Improvements 36
Table 4.3: Existing Transit Service 39
Table 4.4: Available TMC Data 48
Table 4.5: Base Year AM Peak Hour Traffic Operation 54
Table 4.6: Base Year PM Peak Hour Traffic Operation 56

1 Study Overview

1.1 Introduction

Malone Given Parsons Limited (MGP), on behalf of the East Gwillimbury Landowners Group (EGLG), retained Paradigm Transportation Solutions Limited (Paradigm) to prepare the ***Transportation Plan and Active Transportation Strategy***, to inform the Secondary Plan process for the Town of East Gwillimbury *Complete Communities Secondary Plan*.

This study is assessing the adequacy of the existing transportation network as well as evaluate and identify new/modified future transportation infrastructure needs to serve the Secondary Plan area. The assessment incorporates different land use plan options to ultimately define an integrated, multi-modal transportation network to support the preferred land use plan.

This study follows the guidelines and builds upon the work of the *East Gwillimbury Transportation Master Plan*, the *York Region Transportation Master Plan*, the *East Gwillimbury Active Transportation and Trails Master Plan*, and the Town and Regional Official Plans.

This *Transportation Background Report* is part of the *Transportation Plan and Active Transportation Strategy*.

1.2 Background

The Town of East Gwillimbury is situated in the northern part of York Region. The Town consists of five major communities, including Holland Landing, Queensville, Mount Albert, Sharon, and Green Lane West.

The Town was Canada's fastest-growing municipality from 2016 to 2021. The population increased by 44% from 23,991 in 2016 to 34,637 in 2021[1]. The growth is expected to continue. Based on the York Region Official Plan (June 2022), the Town's population will nearly quadruple from 36,500 persons in 2016 to 127,700 by 2051. Employment is projected to grow by more than six times, from 10,300 jobs in 2016 to 63,100 jobs by 2051.

The majority of the growth will occur in undeveloped lands within the Town designated as Whitebelt lands. These lands represent the

[1] https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/details/page.cfm?Lang=E&SearchText=East%20Gwillimbury&GENDERlist=1&STATISTIClist=1&DGUIDlist=2021A00053519054

majority of the remaining areas between the five major communities, and are referred to as the “New Community Area” in the 2022 Regional Official Plan. They represent the next priority area for growth and development in the Town.

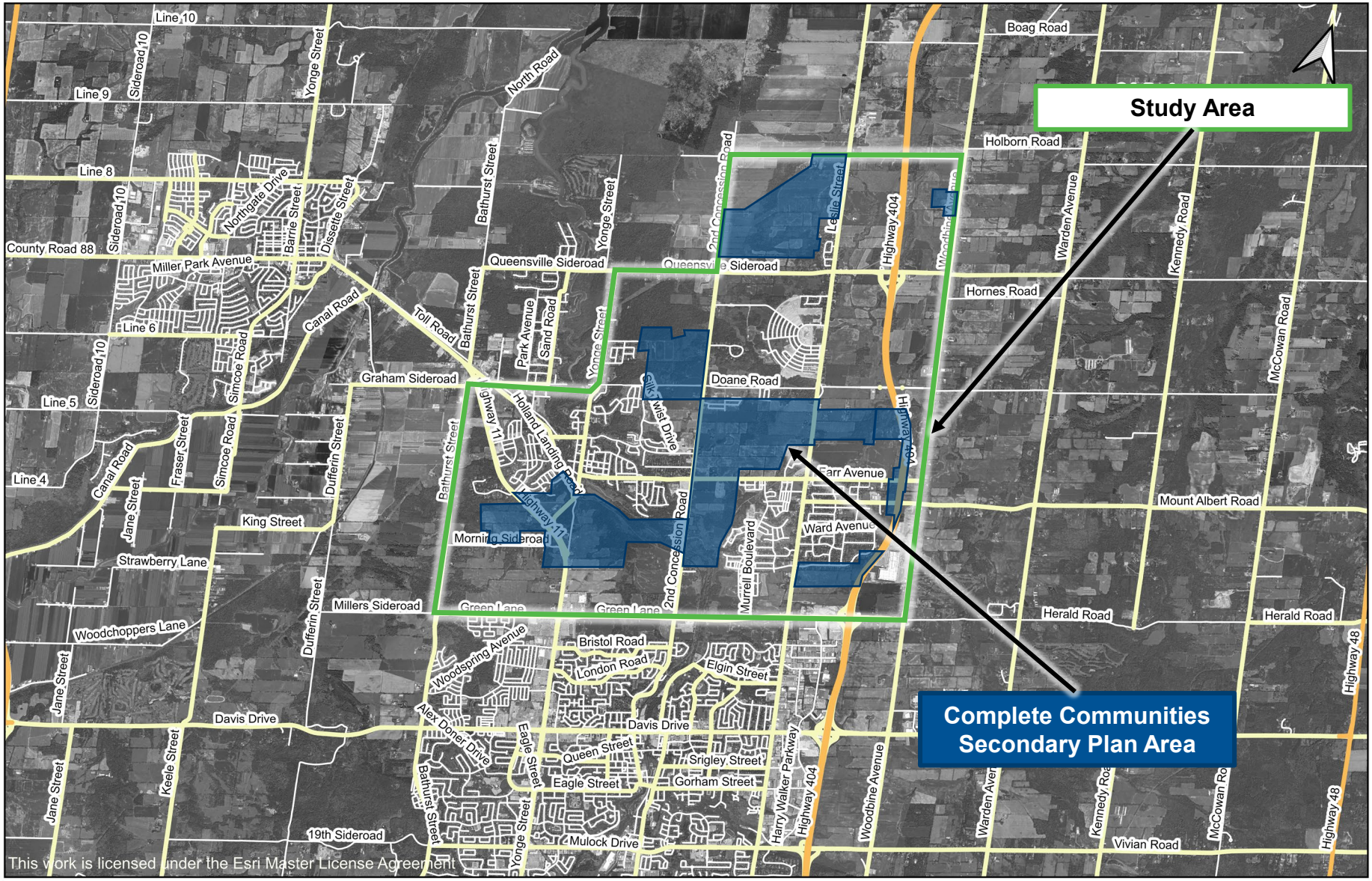
The Town of East Gwillimbury is undertaking a joint Secondary Planning process with the East Gwillimbury Whitebelt Landowners Group (EGWLG) to prepare a Secondary Plan and associated background studies for the New Community Areas.

The Secondary Plan will establish a detailed planning framework and urban land uses in accordance with the policies set out in the Town’s and Region’s Official Plans. The *Transportation Plan and Active Transportation Strategy* is required to inform the Secondary Plan.

1.3 Study Area

The study area includes lands within the Secondary Plan area and the area around it that could be significantly affected by changes to transportation demand. The study area is generally bounded by the proposed Bradford Bypass and Queensville Sideroad to the north, Bathurst Street and Yonge Street to the west, East Gwillimbury southern boundary to the south, and Highway 404 to the east.

Figure 1.1 illustrates the study area and the Secondary Plan area. **Figure 1.2** illustrates the study area intersections, which include arterial/arterial, arterial/collector, collector/collector intersections only, and non-freeflow freeway ramps. **Table 1.1** contains the list of study area intersections.

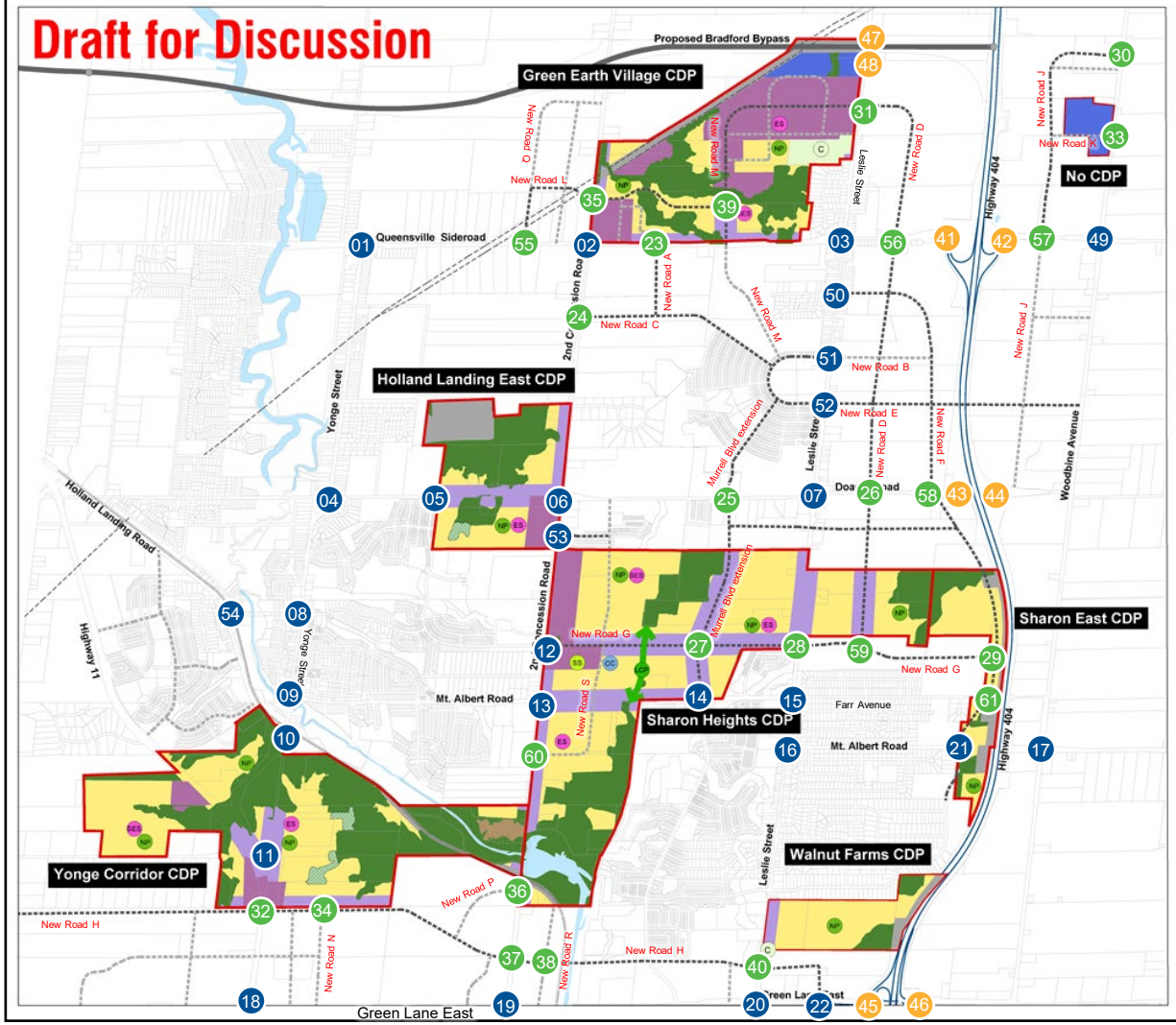


paradigm TRANSPORTATION SOLUTIONS LIMITED

Study Area and Secondary Plan Area

East Gwillimbury Complete Communities Secondary Plan, Transportation Background Report
230671

Figure 1.1



Legend

- 99 Existing intersection for analysis
- 99 New intersection for analysis
- 99 Ramp(s) terminal intersection for analysis

Base map from Draft Land Use Plan (June 2025)
Labels for new roads added by Paradigm.

paradigm TRANSPORTATION SOLUTIONS LIMITED

Study Area Intersections

TABLE 1.1: STUDY AREA INTERSECTIONS

#	East-West Road	North-South Road	Control Type
Existing Intersections			
01	Queensville Sideroad (RR 77)	Yonge Street (RR 51)	unsignalized
02	Queensville Sideroad (RR 77)	2nd Concession Road (RR 34)	signalized
03	Queensville Sideroad (RR 77)	Leslie Street (RR 12)	signalized
04	Doane Road (RR 45)	Yonge Street (RR 51)	unsignalized
05	Doane Road (RR 45)	Silk Twist Drive	unsignalized
06	Doane Road (RR 45)	2nd Concession Road (RR 34)	unsignalized
07	Doane Road (RR 45)	Leslie Street (RR 12)	unsignalized
08	Bradford Street (RR 13) / Thompson Drive	Yonge Street (RR 51)	signalized
09	Mt. Albert Road (RR 13) / Queen Street	Yonge Street (RR 51)	signalized
10	Holland Landing Road (RR 83) / Old Yonge Street	Yonge Street (RR 51)	unsignalized
11	Yonge Street (RR 51) / Morning Sideroad	Highway 11 (RR 1)	signalized
12	Silk Twist Drive/New Road G	2nd Concession Road (RR 34)	unsignalized
13	Mt. Albert Road (RR 13)	2nd Concession Road (RR 34)	signalized
14	Mt. Albert Road (RR 13)	Murrell Boulevard	unsignalized
15	Mt. Albert Road (RR 13)/Farr Avenue	Leslie Street (RR 12)	signalized
16	Mt. Albert Road (RR 13)	Leslie Street (RR 12)	signalized
17	Mt. Albert Road (RR 13)	Woodbine Avenue (RR 8)	signalized
18	Green Lane (RR 19)	Yonge Street (RR 1)	signalized
19	Green Lane East (RR 19)	2nd Concession Road (RR 34)	signalized
20	Green Lane East (RR 19)	Leslie Street (RR 12)	signalized
21	Mt. Albert Road (RR 13)	New Road F/Colonel Wayling Boulevard	unsignalized
22	Green Lane East (RR 19)	New Road H/Harry Walker Parkway	signalized
49	Queensville Sideroad (RR 77)	Woodbine Avenue (RR 8)	signalized
50	Milne Lane/New Road F	Leslie Street (RR 12)	unsignalized
51	Jim Mortson Drive/New Road B	Leslie Street (RR 12)	unsignalized
52	Jim Mortson Drive/New Road E	Leslie Street (RR 12)	unsignalized
53	Chessington Avenue	2nd Concession Road (RR 34)	unsignalized
54	Bradford Street (RR 13)	Holland Landing Road (RR 83)	unsignalized
New Intersections			
23	Queensville Sideroad (RR 77)	New Road A	TBD
24	New Road C	2nd Concession Road (RR 34)	TBD
25	Doane Road (RR 45)	Murrell Boulevard Extension	TBD
26	Doane Road (RR 45)	New Road D	TBD
27	New Road G	Murrell Boulevard Extension	TBD
28	New Road G	Leslie Street (RR 12)	TBD
29	New Road G	New Road F	TBD
30	New Road J	Woodbine Avenue (RR 8)	TBD

#	East-West Road	North-South Road	Control Type
31	New Road D	Leslie Street (RR 12)	TBD
32	New Road H	Yonge Street (RR 1)	TBD
33	New Road K	Woodbine Avenue (RR 8)	TBD
34	New Road H	New Road N	TBD
35	New Road L	2nd Concession Road (RR 34)	TBD
36	New Road P	2nd Concession Road (RR 34)	TBD
37	New Road H	2nd Concession Road (RR 34)	TBD
38	New Road H	New Road R	TBD
39	New Road L	New Road M	TBD
40	New Road H	Leslie Street (RR 12)	TBD
55	Queensville Sideroad (RR 77)	New Road Q	TBD
56	Queensville Sideroad (RR 77)	New Road D	TBD
57	Queensville Sideroad (RR 77)	New Road J	TBD
58	Doane Road (RR 45)	New Road F	TBD
59	New Road G	New Road D	TBD
60	New Road S	2nd Concession Road (RR 34)	TBD
61	Farr Avenue	New Road F	TBD
Ramp Terminal Intersections			
41	Queensville Sideroad (RR 77)	Highway 404 SB On/Off-ramp	unsignalized
42	Queensville Sideroad (RR 77)	Highway 404 NB On/Off-ramp	signalized
43	Doane Road (RR 45)	Highway 404 SB Off-ramp	TBD
44	Doane Road (RR 45	Highway 404 NB Off-ramp	TBD
45	Green Lane East (RR 19)	Highway 404 SB Off-ramp	signalized
46	Green Lane East (RR 19)	Highway 404 NB Off-ramp	signalized
47	Proposed Bradford Bypass WB Ramp	Leslie Street (RR 12)	TBD
48	Proposed Bradford Bypass EB Ramp	Leslie Street (RR 12)	TBD

1.4 Study Goals and Objectives

The overall goal of the *Transportation Plan and Active Transportation Strategy* is to evaluate and identify the elements of future transportation network that are required to accommodate growth in the Secondary Plan area.

This study will confirm the existing and planned connections for the network as well as recommendations for any new connections, to serve existing and future land uses in the Secondar Plan area.

The results of the study will determine the planned roadway right-of-way, intersection control type and land configurations, and cross-section requirements for the 2051 horizon. Given the future urbanization of the area, this study also considers active transportation needs and provides recommendations.

The objectives for this study include:

- Review and evaluate existing and planned transportation network, including road, transit, bicycle and pedestrian networks within the study area;
- Assess base year (2024) traffic operation conditions at the study area intersections through intersection capacity analysis;
- Develop future turning movements volume at the study area intersections with the proposed preferred land use plan;
- Assess 2051 traffic operation conditions through intersection capacity analysis and identify elements of the planned road network through an iterative process;
- Provide road right-of-way and cross-section requirements/improvements within the study area, particularly for the planned roadways; and
- Identify needs and opportunities to the active transportation infrastructure to accommodate the Secondary Plan area.

The study analysis periods are the weekday AM and PM peak hours, representing typical commuter periods.

1.5 Study Methodology

The following summarizes the seven-step study methodology:

Step 1: Review Planning and Policy Documents

The first step is to review related planning and policy documents (e.g., Town and Regional Official Plans) to provide information and context regarding the study area, most importantly, to confirm planned/proposed transportation network improvements, which will be incorporated in future operational analyses.

Step 2: Review Existing Transportation Network

This step is to review existing road network in terms of road characteristics, cross-section, speed limit, auxiliary lanes, and intersection configurations and operations. This step also reviews the existing active transportation facilities and transit services. All this information provides a base condition for the existing transportation network.

Step 3: Identify Issues and Opportunities

Building on previous steps, transportation network issues and opportunities are identified through the existing transportation network review and planning and policy review.

Step 3: Develop 2051 Traffic Forecasts

The East Gwillimbury Subarea Model developed by HDR will be used to develop the 2051 turning movement counts at the study area intersections with the proposed preferred land use concept.

Step 4: Define Elements of the Recommended Road Network

This step is to define the recommended intersection and roadway configurations based on the predicted 2051 traffic forecasts. It involves an iterative process and the outputs from the process include the following:

- Intersection type (roundabout, two-way stop control, all-way stop control, signalized);
- Turning/through lane configuration;
- Signalization requirements, if applicable (for example, whether a left-turn phase is needed); and
- Indicative requirements for turn lane lengths.

Step 6: Analyze Preferred Road Network

Based on the refined road network in Step 4, the recommended road network is reviewed to determine its effectiveness and ease of implementation.

Step 7: Develop Active Transportation Strategy

The last step in the analysis and assessment process reviews the recommended active transportation network to identify needs and opportunities for improvements.

This Transportation Background Report presents the review results from Step 1 to 3. The final *Transportation Plan and Active Transportation Strategy* Report will include all study results from Step 1 to 7.

1.6 Data Sources

The technical analyses for the *Transportation Plan and Active Transportation Strategy* relied on the following data:

- Preferred land use plan with population and employment information at traffic zone level;
- Historical turning movement counts and signal timing plans data provided by York Region;
- Turning movement counts collected by Paradigm. These were conducted on Tuesday, May 14, 2024 from 7:00 AM to 7:00 PM in 15-minute intervals, and classified by vehicle type;
- 2051 East Gwillimbury Subarea Model outputs generated by HDR; and
- 2022 Transportation Tomorrow Survey (TTS) data.

2 Planning and Policy Context

2.1 Provincial Planning Context

2.1.1 Provincial Policy Statement (2024)

The Provincial Policy Statement (PPS) provides policy direction on matters of provincial interest related to land use planning and development, including transportation facilities. The *Planning Act* requires all planning decisions to be consistent with the PPS.

The 2024 edition replaced the 2020 edition and came into effect on October 20, 2024.

Chapter 3 (Infrastructure and Public Service Facilities) of the PPS states that municipalities shall provide infrastructure and public service facilities while accommodating projected needs;

In planning and developing infrastructure and public service facilities, municipalities should:

- Coordinate and integrate with land use planning and growth management;
- Consider optimization of current infrastructure and public service facilities before developing new facilities;
- Strategically locate facilities to support effective and efficient delivery of emergency management systems, and ensure the protection of public health and safety; and
- Co-locate public service facilities in community hubs to promote cost-effectiveness, facility service integration and access to transit and active transportation.

Section 3.2 (Transportation Systems) sets out policies that focus on the movement of people and goods through a safe and energy-efficient transportation system. Connectivity within and among transportation systems and modes should be planned for, maintained and improved where possible. This includes connections which cross jurisdictional boundaries.

Section 3.3 (Transportation and Infrastructure Corridors) directs municipalities to:

- Plan and protect corridors and rights-of-way for transportation, transit, and other infrastructure facilities to meet current and projected needs;

- Provide long-term protection for major goods movement facilities;
- Restrict development in planned corridors that could preclude or negatively affect the use of the corridor for the purpose(s) for which it was identified; and
- Encourage preservation and reuse of abandoned corridors for purposes that maintain its integrity and continuous linear characteristics.

2.1.2 Bill 185 / Parking Rates

In June 2024, the Province of Ontario passed Bill 185 (*Cutting Red Tape to Build More Homes Act, 2024*)[2]. The Bill includes amendments to Section 16 of the Planning Act, specifying:

> *"(22) No official plan may contain any policy that has the effect of requiring an owner or occupant of a building or structure to provide and maintain parking facilities, other than parking facilities for bicycles, on land that is not part of a highway and that is located within,*
>
> *(a) a protected major transit station area identified in accordance with subsection (15) or (16);*
>
> *(b) an area delineated in the official plan of the municipality surrounding and including an existing or planned higher order transit station or stop, within which area the official plan policies identify the minimum number of residents and jobs, collectively, per hectare that are planned to be accommodated, but only if those policies are required to be included in the official plan to conform with a provincial plan or be consistent with a policy statement issued under subsection 3 (1); or*
>
> *(c) any other area prescribed for the purposes of this clause."*

Thus, no vehicular parking minimums are required nor apply for new developments within a Major Transit Station Area (MTSA), per Bill 185. Based on the *2022 Regional Official Plan Appendix 2 – York Region Major Transit Station Areas*, East Gwillimbury contains two MTSAs: East Gwillimbury GO Station; and Green Lane BRT Station.

[2] *Bill 185, Cutting Red Tape to Build More Homes Act*, 2024. https://www.ola.org/en/legislative-business/bills/parliament-43/session-1/bill-185

2.2 York Region Planning Context

2.2.1 2022 Regional Official Plan

The Ministry of Municipal Affairs and Housing approved the 2022 Regional Official Plan in November 2022. The 2022 Regional Official Plan (ROP) is the guiding document for directing growth and development in York Region to 2051. The ROP provides policies to ensure an improved quality of life and secure the health, safety, convenience, and well-being of the present and future residents of the Region.

The ROP *Map 1B – Urban System Overlays* identifies urban expansion lands in the Town of East Gwillimbury to accommodate population and employment growth to 2051. These lands are classified as "Designated Greenfield Area" and "New Community Area" in the ROP.

Chapter 4.2 of the ROP outlines the New Community Areas policies. The following policies are related to the subject study:

- The New Community Areas policies apply in addition to the Community Area policies that govern the existing designated greenfield areas;
- The local municipalities, in consultation with York Region, shall prepare comprehensive secondary plans for New Community Areas.
  - This triggered the *Transportation Plan and Active Transportation Strategy* to inform the *Complete Communities Secondary Plan*.
- New Community Areas shall be designed to meet or exceed a minimum density of 65 residents and jobs per hectare and 18 residential units per hectare in the developable areas;
- Transportation demand measures shall be completed for New Community Areas to ensure that:
  - An interconnected and shared accessible active transportation system for all ages and abilities is provided;
  - A transit plan is completed in consultation with York Region Transit (YRT), which identifies transit routes and corridors, coordinates transit with land use patterns and active transportation;
  - Schools and community centres are provided with safe and active transportation, transit, and carpool facilities;

- A street network is provided that includes continuous collector streets which run both north-south and east-west and/or a grid system of streets linked to the regional street network;
- New Community Areas are designed to meet industry, Provincial, and Regional best practices and guidelines for transit-oriented development;
- Planned rapid transit corridors and/or transit terminals are included in the community design;
- Parking standards encourage and support transit use and include reduced minimum and maximum parking standards; *and*
- Sustainable mobility measures are promoted.

Additionally, Maps 9A and 9B in the ROP illustrate the existing and proposed regional cycling network and trail network, respectively. Map 10 in the ROP illustrates the existing and proposed rapid transit network in the Region. Map 11 in the ROP presents the regional street network, including the current and proposed right-of-way (ROW) widths.

The transportation policies in the ROP will guide the development of the preferred land use plan and planning of the transportation network for the *Transportation Plan and Active Transportation Strategy*.

2.2.2 2022 York Region Transportation Master Plan

The 2022 York Region *Transportation Master Plan* (TMP) is a strategic planning document that defines the policies, programs, and infrastructure modifications needed to manage anticipated transportation demands to 2051, and to support the development pattern designated in the Regional Official Plan. The TMP is a multi-modal plan focusing on all modes of transportation, including walking, cycling, public transit, autos, and goods movement.

The 2022 York Region TMP outlines the following key directions for the recommended transportation networks, which serve as the framework for this study's policies, strategies, and actions:

- A large, more integrated active transportation network;
- More rapid transit corridors;
- A more strategic approach to the road network;
- Constructing active transportation, transit and road improvements; and

- Transportation needs continue to evolve to support changing land use.

Maps 1 to 4 in the TMP illustrates the recommended networks within the Region. **Section 4.2.2** of this report provides information on planned transportation network improvements within the study area.

Successful implementation of the York Region TMP will ultimately depend on the co-operation and active participation of many stakeholders, including the Town of East Gwillimbury.

2.3 Town of East Gwillimbury Planning Context

2.3.1 Official Plan (October 2018 Consolidation)

The Town of East Gwillimbury's Official Plan (OP) provides direction and a policy framework for managing growth and land use decisions over the planning period to 2031.

The urban structure (Schedule A-1) in the OP shows that the Town includes five major settlement areas: Mount Albert, Holland Landing, Queensville, Sharon, and Green Lane West.

As a result of historic development patterns, previous urban expansions, and servicing constraints, these settlement areas are separated. With the anticipated growth and defined New Community Areas in the ROP, there is an opportunity to evolve the existing and future communities into a balanced, sustainable, and complete community that supports the existing communities as they grow and diversify with new compatible development.

The existing five communities each have an individual Secondary Plan. An official plan amendment is required to introduce a Secondary Plan for the New Community Areas.

Chapter 7.2 of the OP sets out the objectives for transportation:

- Establish an integrated transportation system that accommodates various modes of transportation;
- Promote public transit, cycling and walking as energy efficient, affordable and accessible forms of travel;
- Develop a transportation system that is compatible with and supportive of existing and future land uses; and
- Ensure new roads in the Settlement Area are designed in a grid-oriented street network to help traffic distribution and future public transit operation.

Table 7.1 in the OP summarizes the role, function, and general road design requirements for different road classifications.

For active transportation, the OP "encourages the development of an integrated trails system that links open space areas, significant natural, historic and recreational features and community facilities into an integrated community-wide trails network". Further, "the Town shall provide and encourage other landowners to provide facilities and opportunities for active transportation, such as walking and cycling throughout the community".

Overall, the OP sets a clear direction to encourage greater use of sustainable transportation modes, and to capitalize on new development to provide appropriate infrastructure. Planning for the transportation system within the New Community Areas will follow the direction and policies of the OP.

2.3.2 Updated Official Plan (June 2022)

The Town of East Gwillimbury's Updated Official Plan (OP) was adopted and endorsed at the June 21, 2022, Council meeting. In June 2023, York Region staff provided comments on the endorsed East Gwillimbury OP (June 2022). The Town staff has prepared a modified OP in response to Region's comments. The proposed modified OP is under review.

The proposed modified OP introduced the New Community Areas and their general development policies. Schedule 3 of the June 2022 OP identified the New Community Design Plan areas within the Town.

The transportation objectives set out in Chapter 7.2 of the 2018 OP remain unchanged in the new OP. The proposed modified OP stressed all developments that affects or is in proximity to a Regional Road, or a Regional Transit facility shall be in line with the York Region Official Plan and *Transportation Master Plan*.

2.3.3 *Complete Communities Secondary Plan* (*ongoing*)

The Town of East Gwillimbury initiated a Secondary Plan process for the Town's *Complete Communities Secondary Plan* in September 2023. The study area of the Secondary Plan is the New Community Design Plan areas identified in Schedule 3 of the Updated Official Plan (June 2022).

Even though the Official Plan (June 2022) sets out general policies for the study area, a Secondary Plan is still required to establish a detailed planning framework and urban land uses to guide future development.

The *Transportation Plan and Active Transportation Strategy* is one of the background studies for the *Complete Communities Secondary Plan*.

2.3.4 Transportation Master Plan Update (September 2024)

The Town of East Gwillimbury Transportation Master Plan (TMP) Update (September 2024) is an update to the 2010 TMP study. The TMP was developed to address existing and future transportation needs of drivers, transit users, pedestrians, and cyclists. The TMP also provides guidance on community transportation planning to the year of 2051.

Exhibit C and Table A in the Town TMP Update summarize the proposed road projects and intersection improvements, respectively, to support the significant growth over the next 30 years.

Developments in the Whitebelt lands were assessed in 70% and 100% stages for phasing opportunities. The current land use concept plan in this study covers the same new community areas as the 2051 70% development scenario in the TMP Update.

The TMP Update recommended single-lane roundabouts to be considered first for intersection control for all new intersections and intersection improvements on rural roads, minor collector roads, and major collector roads.

The TMP Update also reviewed the existing active transportation network within the Town. The recommended improvements to the active transportation network consisted of adding new sidewalks for the “missing links” to improve safety, accessibility, and connectivity. For cycling, the recommendation is to provide cycling facilities on new and existing collector and arterial roads. Exhibit D and Exhibit E in the TMP Update illustrate the future 2051 sidewalk network and 2051 cycling network projects, respectively.

The *Transportation Plan and Active Transportation Strategy* will follow the directions provided in the TMP Update. This study will use the planned/recommended transportation network developed by the TMP Update as the starting point for future technical analysis, refining as needed in response to changing inputs.

2.3.5 Active Transportation and Trails Master Plan (June 2012)

The goal of the 2012 *Active Transportation and Trails Master* (ATTMP) is to identify a recommended off-road trail network and an on-road active transportation network that will connect the Town’s urban and rural communities. The recommended trail and active transportation

networks will promote increased active transportation throughout the Town for both utilitarian and recreational purposes.

The 2012 ATTMP proposed the following facility types for the Town of East Gwillimbury, along with their conditions for use:

- Multi-use trails and hiking trails;
- Rails with trails;
- Conventional and buffered (separated) bike lanes;
- Bike lanes with on-street parking;
- Paved shoulders and signed bike routes; and
- Signed routes.

The ATTMP noted sidewalks are preferred on both sides of all streets in the urban areas that are designated Active Transportation routes. If this cannot be achieved, a sidewalk should be provided on at least one side of all streets except for laneways with extremely low traffic volume.

The Active Transportation Strategy developed for the *Complete Communities Secondary Plan* will follow the directions from the 2012 ATTMP.

It is noted the Town of East Gwillimbury is currently undertaking a study to update the 2012 Active Transportation and Trails Master Plan (ATTMP).

3 Land Use Concept Plan

The *Complete Communities Secondary Plan* area represents the New Community Areas identified in Schedule 3 of the Town of East Gwillimbury's adopted Official Plan (2022). This includes the Green Earth Village Community Design Plan (CDP), Holland Landing East CDP, Sharon East CDP, Sharon Heights CDP, Walnut Farms CDP, and Yonge Corridor CDP areas.

The current land use concept plan includes residential, mixed-use, employment, park, and school land uses. **Figure 3.1** illustrates the Draft Land Use Plan developed by The Planning Partnership (March 2025).

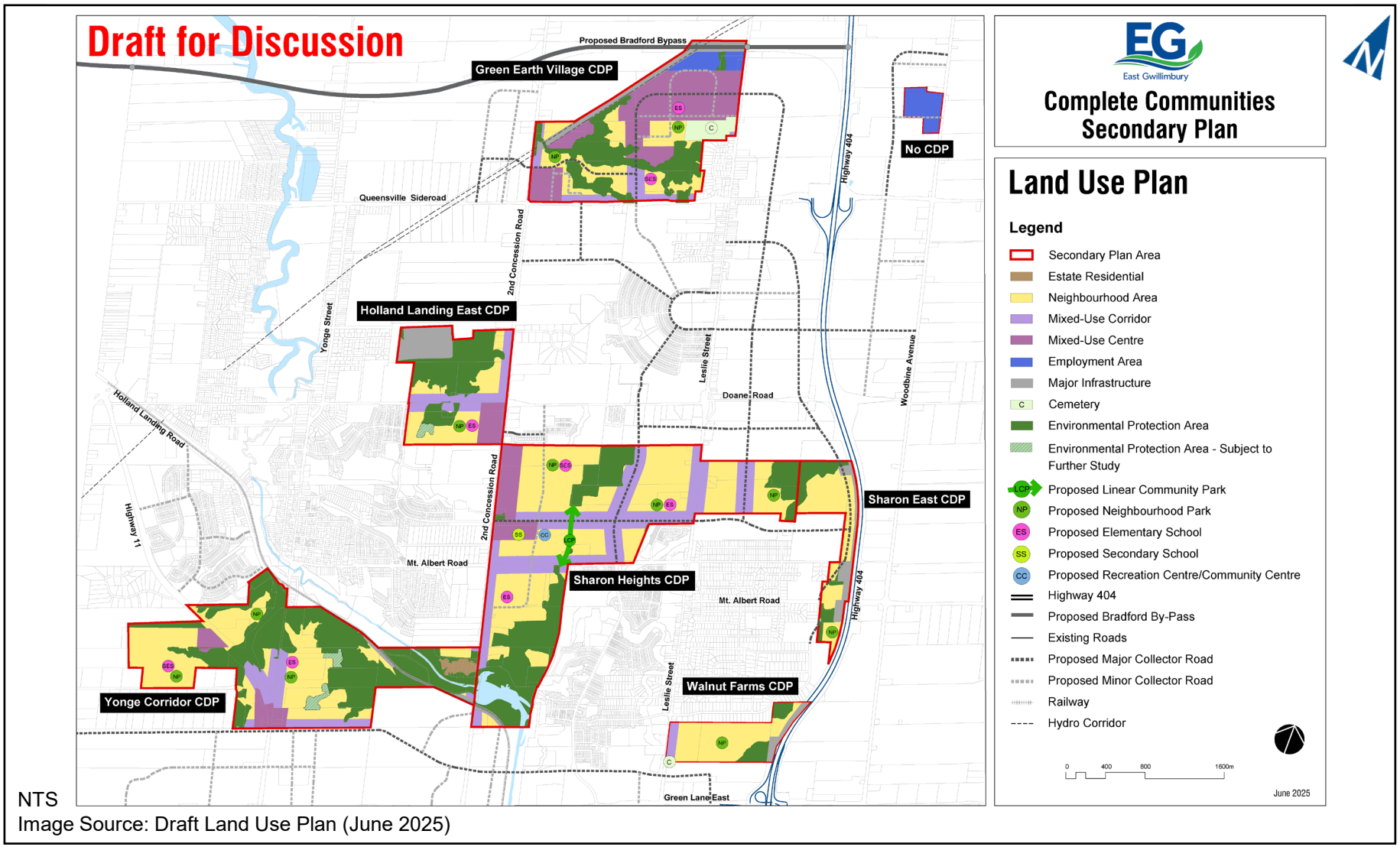
Table 3.1 summarizes the population and employment growth of the Secondary Plan area by the CDP area. The draft land use plan proposes to add a total of 48,764 persons and 6,846 jobs in the Secondary Plan area.

Aforementioned, the Secondary Plan area represents the same new community areas as the 2051 70% development scenario in the Town's TMP Update (September 2024). **Figure 3.2** illustrates the Traffic Analysis Zones (TAZs) used in the Town's TMP Update. These TAZs represent disaggregated 2016 TTS zones and cover the Secondary Plan area along with their adjacent area.

Table 3.2 presents a comparison of population and employment forecasts between the current draft land use plan and the Town's TMP Update (September 2024) for the TAZs covering the Secondary Plan area. These figures including both existing population/jobs and the growth shown in **Table 3.1**.

Compared to the TMP Update 2051 70% development scenario, the current draft land use plan indicates an additional population increase of 24,644 people and a slight employment decrease of 153 jobs. This suggests that additional transportation network improvements, beyond the recommendations proposed in the TMP Update, may be required to accommodate the additional population growth by 2051.

The Secondary Plan area is anticipated to be built-out and occupied by 2051 with phasing to be defined. As the lands build-out, individual community design plans will be developed. These plans will provide significant details that are intended to inform subsequent development approvals, and may vary from the plans proposed here. As a result, additional studies will be required from the Town to support the development of individual community design plans.

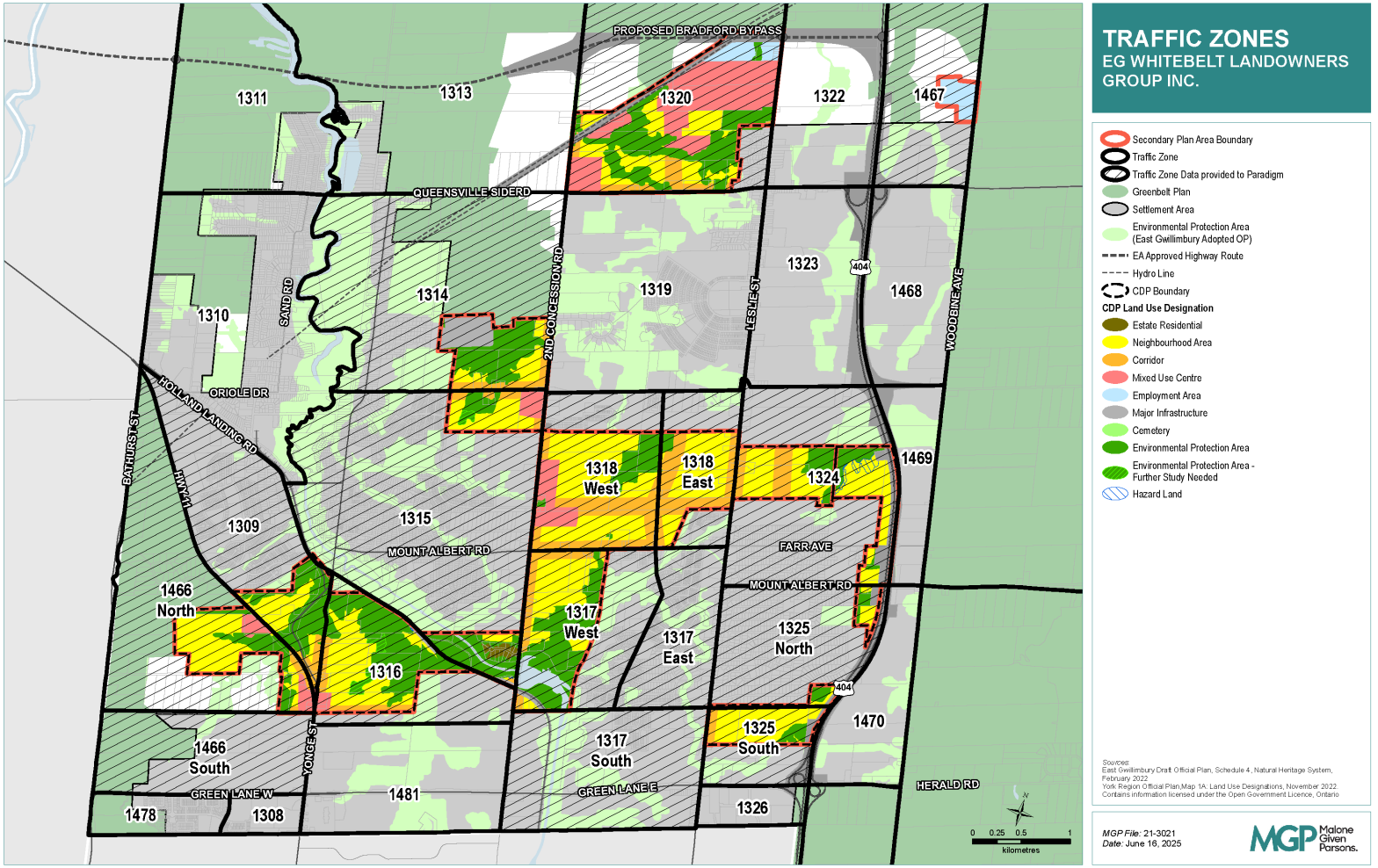


NTS

Image Source: Draft Land Use Plan (June 2025)

paradigm TRANSPORTATION SOLUTIONS LIMITED

Draft Land Use Plan



NTS
Image Source: Traffic Zones map developed by MGP (June 16, 2025)

Traffic Analysis Zones

TABLE 3.1: PROPOSED POPULATION AND EMPLOYMENT GROWTH

CDP Area	Population	Jobs
Green Earth Village	11,255	1,905
Holland Landing East	3,865	579
Sharon Heights	20,046	2,289
Sharon East	2,001	171
Walnut Farms	2,724	229
Yonge Corridor	8,873	1,065
Employment Area (No CDP)	0	609
Total	***48,764***	***6,846***

TABLE 3.2: POPULATION AND EMPLOYMENT FORECASTS COMPARISON

TAZ	Population			Jobs		
	Current Land Use Plan	TMP*	Change from TMP	Current Land Use Plan	TMP*	Change from TMP
1309	6,869	5,978	+891	816	1,362	-546
1314	2,694	1,650	+1,044	257	222	+35
1315	12,978	12,639	+339	1,732	1,432	+300
1316	6,198	5,011	+1,187	719	723	-4
1317	20,740	18,739	+2,001	2,409	2,987	-578
1318	18,140	12,419	+5,721	2,086	850	+1,236
1320	11,459	3,028	+8,431	1,917	2,733	-816
1324	10,657	7,523	+3,134	1,116	2,048	-932
1325	4,684	3,787	+897	3,373	2,282	+1,091
1466	10,283	9,285	+998	1,251	1,986	-735
1467	0	0	Nil	2,205	1,407	+798
Total	***104,703***	***80,059***	***+24,644***	***17,879***	***18,032***	***-153***

** the TMP forecasts represent the 2051 70% development scenario.*

4 Existing and Planned Transportation Conditions

4.1 Existing Travel Patterns

The travel pattern data has been sourced from the 2022 Transportation Tomorrow Survey (TTS). This is a detailed survey conducted every five years, sampling about 5% of households across the Greater Golden Horseshoe Area, including East Gwillimbury. The results are calibrated against Census population data. The results are widely used by municipalities in the analysis and planning of the transportation systems.

The travel pattern analysis covers the four principal questions:

- **Why** – purpose for travelling;
- **Where** – origin and destination points;
- **How** – mode of transportation used; *and*
- **When** – time of day for trips.

Throughout the analysis, the study area is compared to East Gwillimbury as a whole, as well as nearby urban municipalities. The analysis also considers trips involving East Gwillimbury GO Station, recognizing the unique role it plays in the Secondary Plan area.

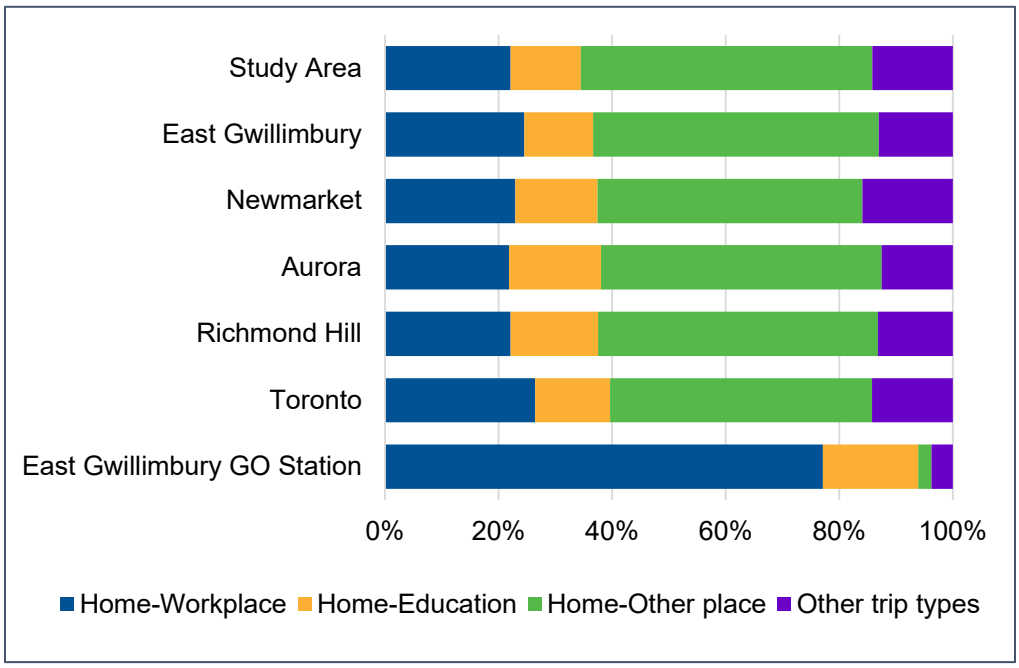
4.1.1 Why – Trip Purpose

TTS distinguishes between four types of trips: between home and place of work, place of education, and other places; and between non-home places. These purposes cover trips in both directions.

Figure 4.1 shows the proportion of trips by purpose using East Gwillimbury GO station, originating in the study area[3], East Gwillimbury as a whole, nearby urban municipalities (Newmarket, Aurora, and Richmond Hill), and Toronto.

[3] This includes 2022 TTS Zones 3507,3511,3538,3517,3522,3523, 3506, 3505,3503,3504,3512,3513,3514, 3537,3516,3515,3524, 3526, 3536, 3528, 3527, 3525.

Figure 4.1: Purpose of Trips to East Gwillimbury by Origin



The charts indicates that trips between home and places other than workplaces or education sites are the most common, approximately 2% of trips from the East Gwillimbury GO Station, and roughly half of trips from the study area and various municipalities.

The chart indicates that the distribution of trips purpose for the study area is similar to the other urban municipalities. This suggests that as the Secondary Plan area develops with urban land uses, the split of trip purposes will also shift towards those for East Gwillimbury as a whole.

Finally, the chart shows trips boarding at the East Gwillimbury GO station are mostly (77%) for commuting purposes. Further analysis revealed that this proportion did not change significantly from 2016 to 2022, even though the number of GO Train trips decreased. However, TTS covers weekday trips only, and observations suggest weekend use (primarily for non-commute purposes) of the GO Train has increased in recent years. Furthermore, planned improvements in GO Train services (discussed in Section 4.3.2) are likely to result in greater non-commute usage on both weekdays and weekends. This will generate additional travel demand to/from the GO station, which will need to be accommodated by the transportation system.

4.1.2 Where – Origin and Destination

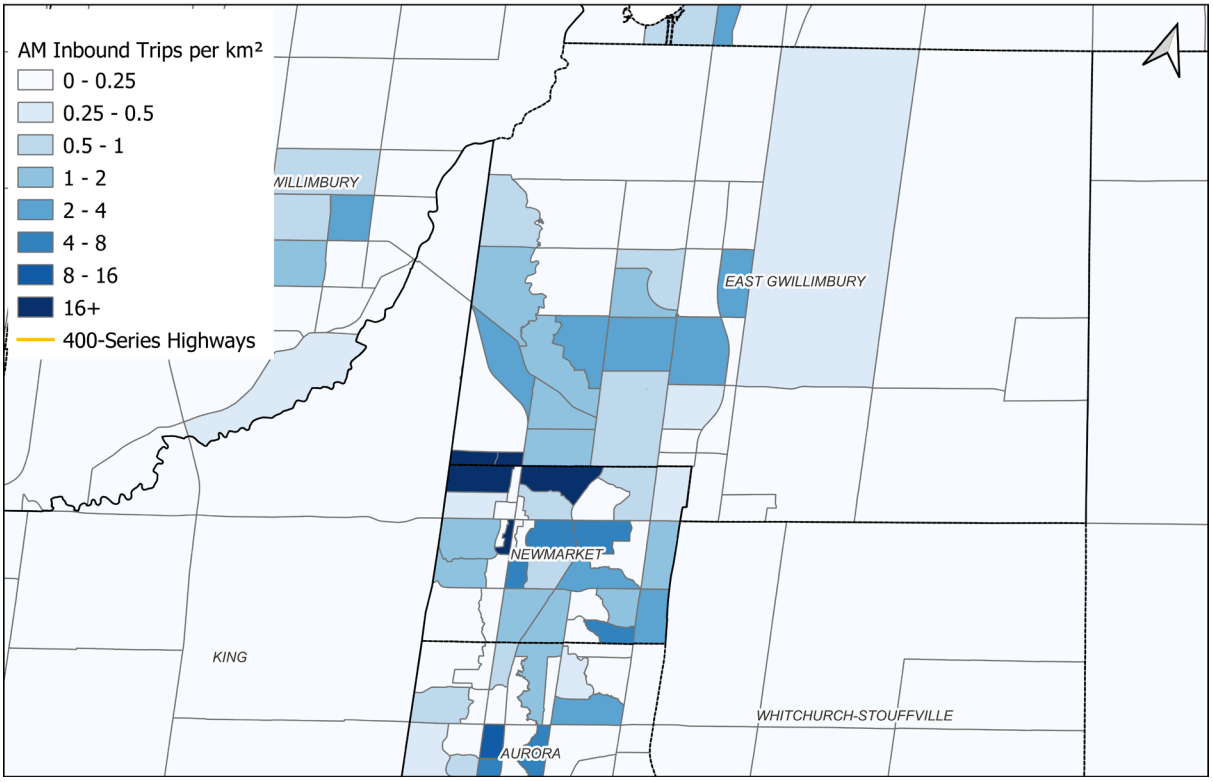
The 2022 TTS data was used to understand the travel patterns during the weekday AM and PM peak periods.

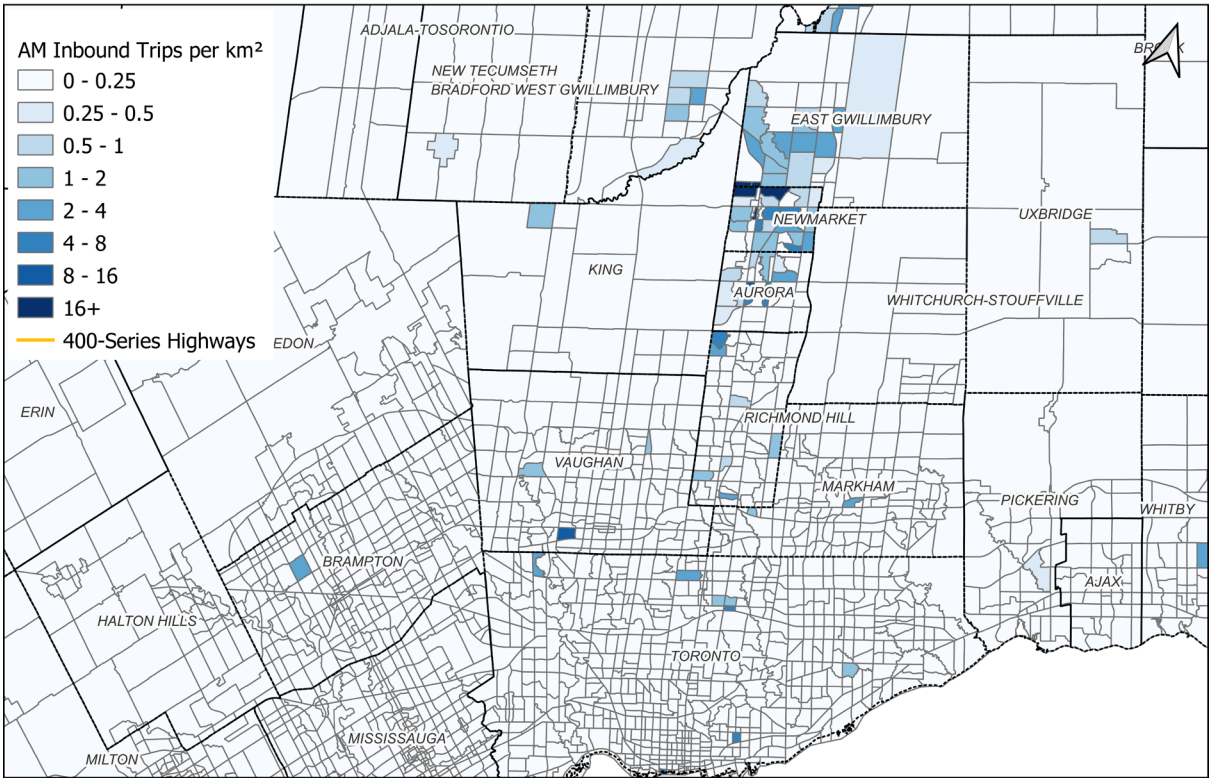
- **Figure 4.2** shows the density of trips (number of trips per km^2) destined to the study area during the weekday AM peak hour period (6:00-9:00 AM).
- **Figure 4.3** shows the density of trips originated from the study area during the weekday AM peak hour period (6:00-9:00 AM).
- **Figure 4.4** shows the density of trips destined to the study area during the weekday PM peak hour period (3:00-6:00 PM).
- **Figure 4.5** shows the density of trips originated from the study area during the weekday PM peak hour period (3:00-6:00 PM).

The maps show that majority of inbound trips to the study area during the AM peak period originated in East Gwillimbury (within the Town) and Newmarket, which account for approximately 54% of all trips. The remaining AM inbound trips came from other southern municipalities in York Region or outside the region (e.g., Toronto, Brampton, Whitby).

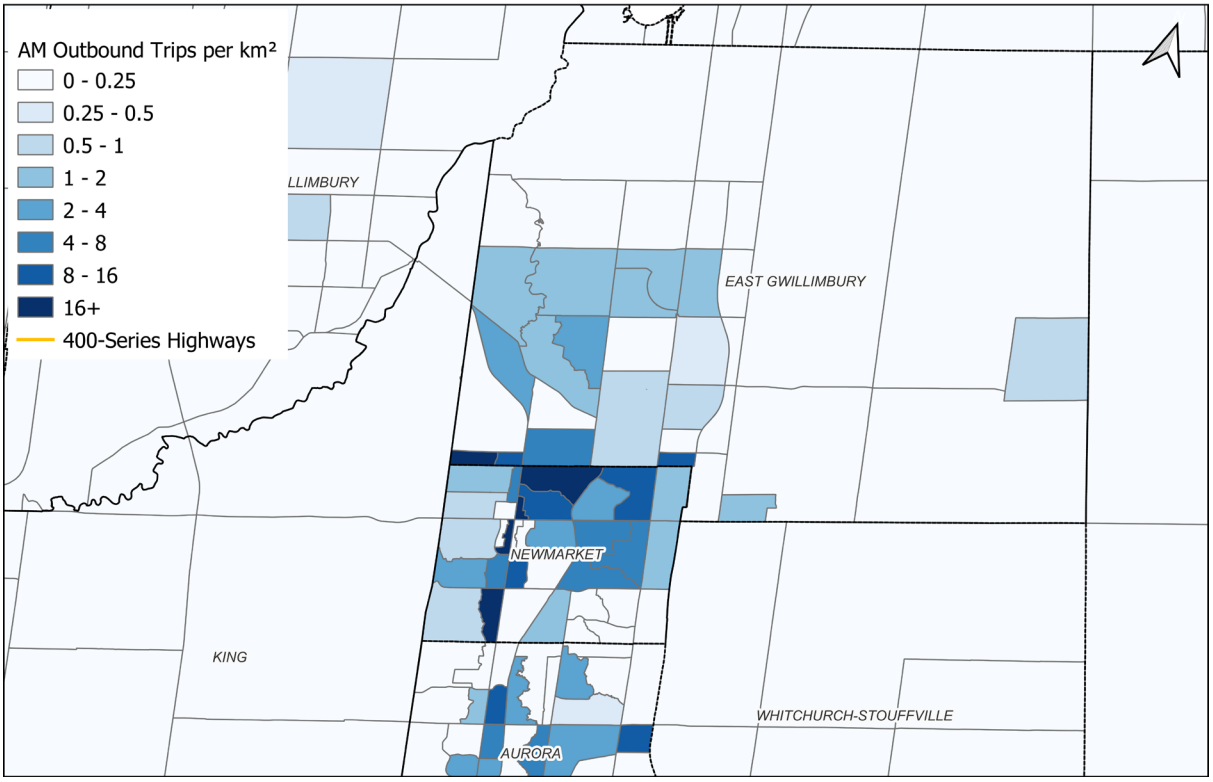
The AM outbound trips indicate a similar geographic distribution and trip density to PM inbound trips. This pattern illustrates typical commuter behavior, where people leave for work in East Gwillimbury, Newmarket, Aurora, other southern York Region municipalities, and Toronto during the AM peak, and return to the study area during the PM peak. Different from AM outbound trips, a small portion (9%) of PM inbound trips also came from Bradford West Gwillimbury and Georgina.

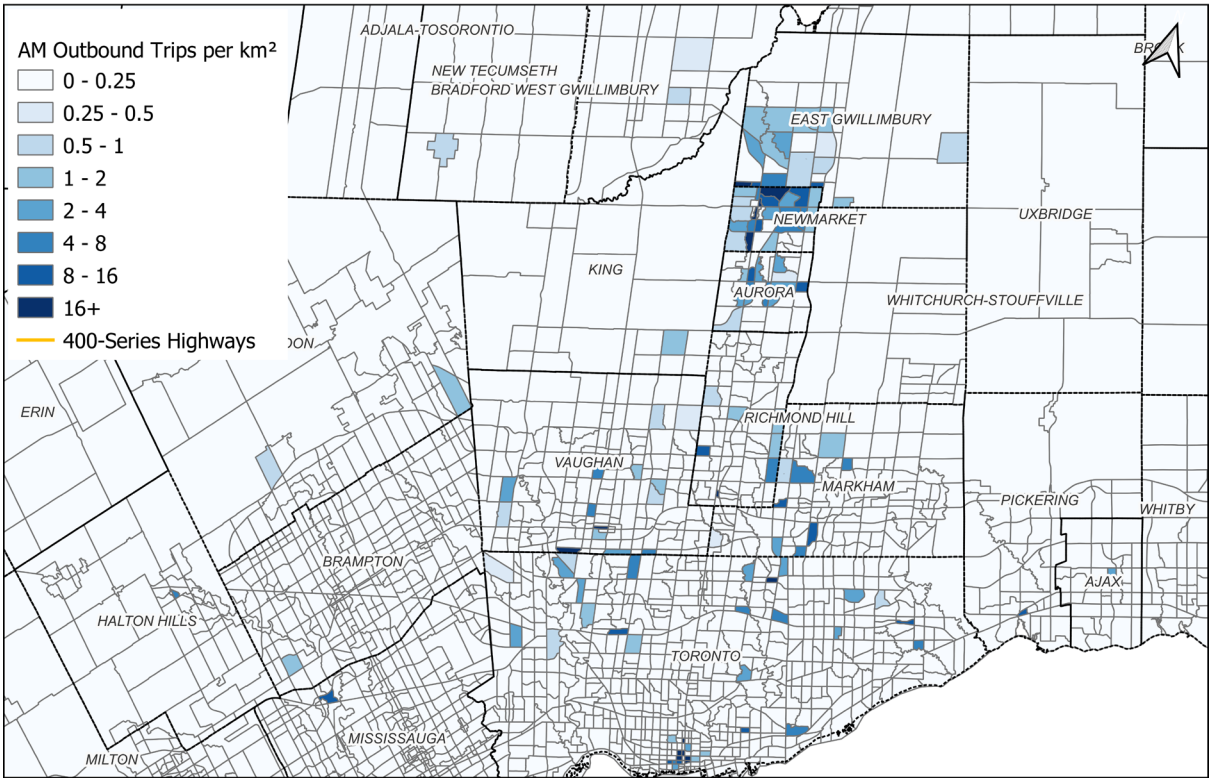
During the PM peak period, the majority of outbound trips from the study area were destined for East Gwillimbury (with the Town), Newmarket, and Bradford West Gwillimbury, making up approximately 50% of all trips.



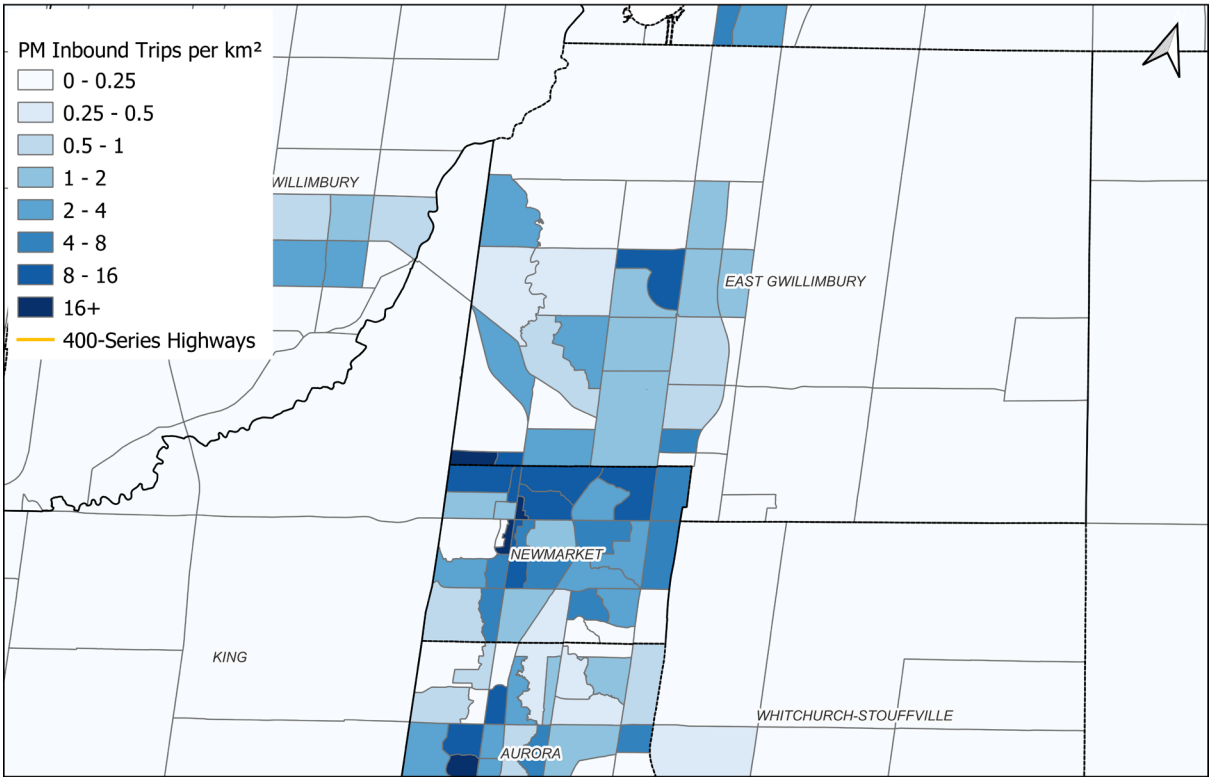


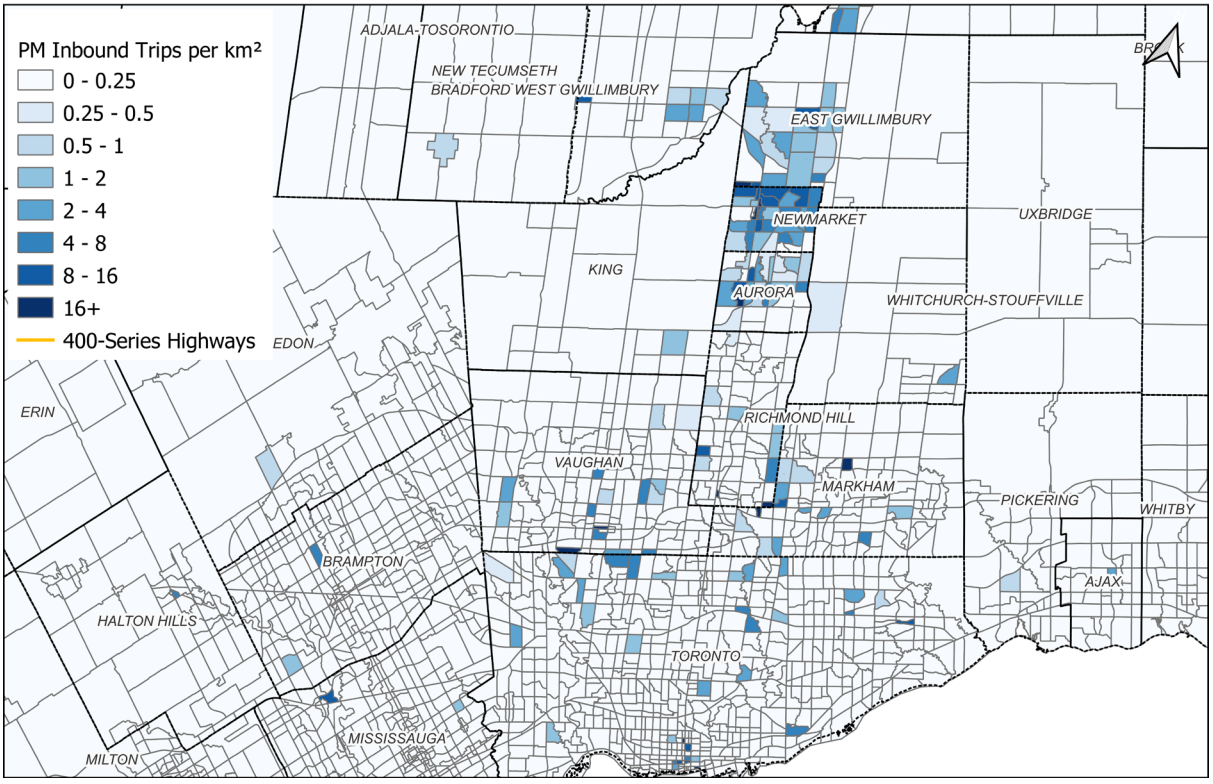
Trips to Study Area (All Purposes) - AM Peak Period



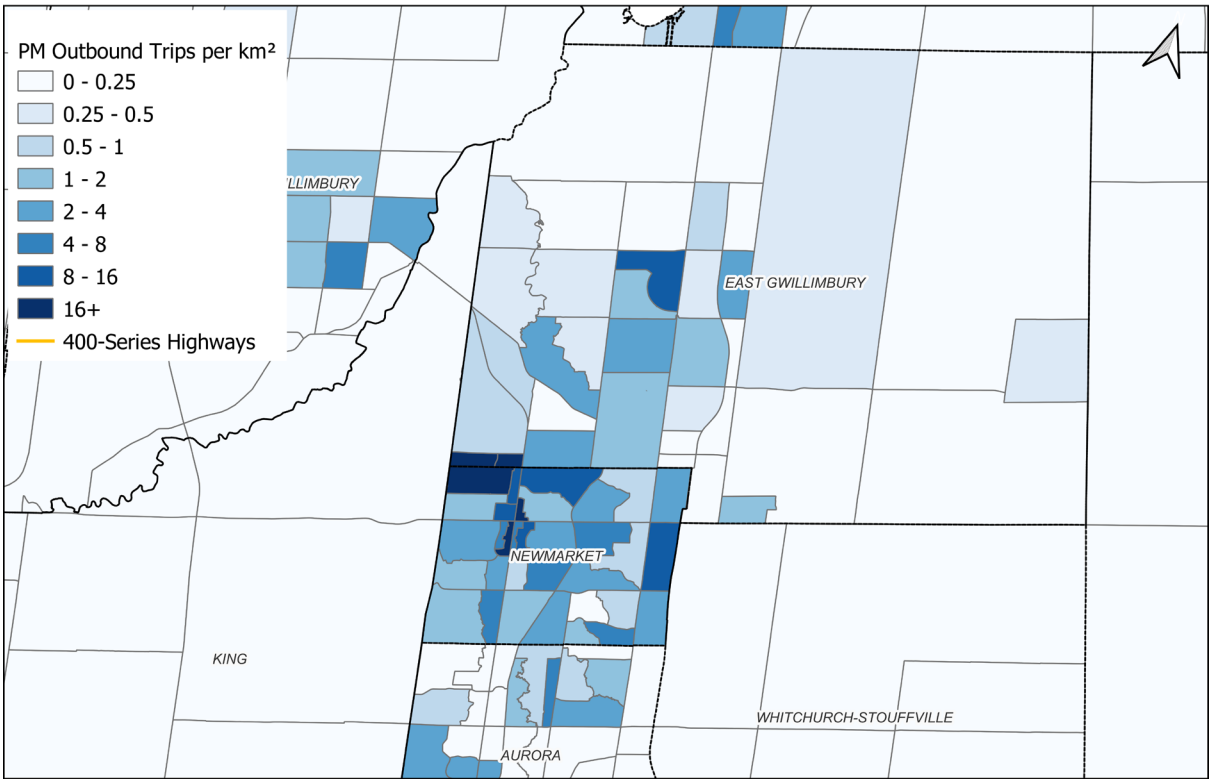


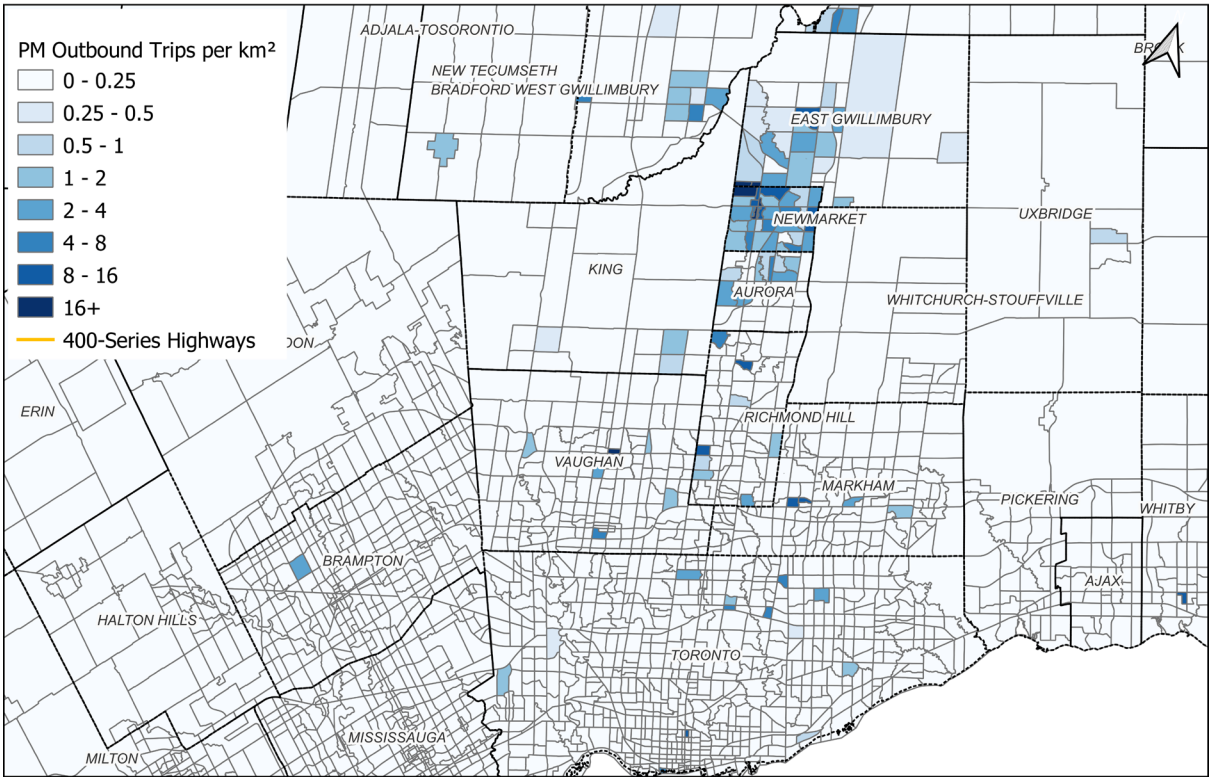
Trips from Study Area (All Purposes) - AM Peak Period





Trips to Study Area (All Purposes) - PM Peak Period



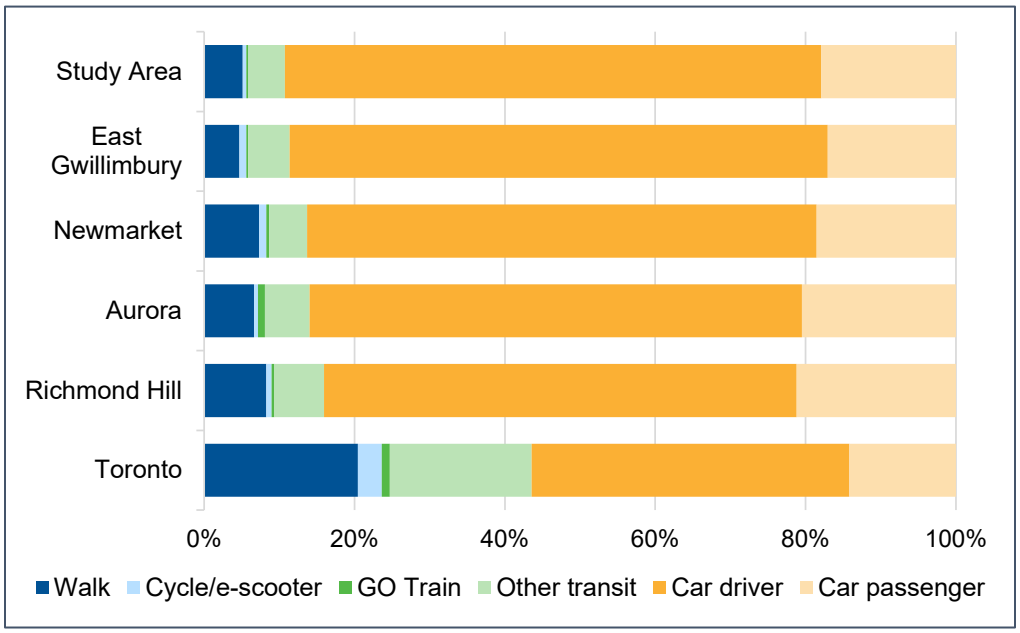


Trips from Study Area (All Purposes) - PM Peak Period

4.1.3 How – Mode of Travel

Figure 4.6 shows the mode split for trips originating from the TTS zones containing the study area, East Gwillimbury as a whole, other adjacent York municipalities, and Toronto. In general, the mode splits for trips originating *from* an area and for trips destined *to* an area are almost identical trips, so the latter is not analysed here.

Figure 4.6: Mode Split by Destination



The charts shows that travel to the study area is dominated by car travel, with close to 90% by car (either as driver or passenger). This is similar as East Gwillimbury as a whole.

Newmarket, Aurora, and Richmond Hill have a slightly lower car mode share (approximately 85%). As the Secondary Plan area intensifies with various land uses, there is potential for it to experience similar mode share splits as other adjacent urban municipalities in the region.

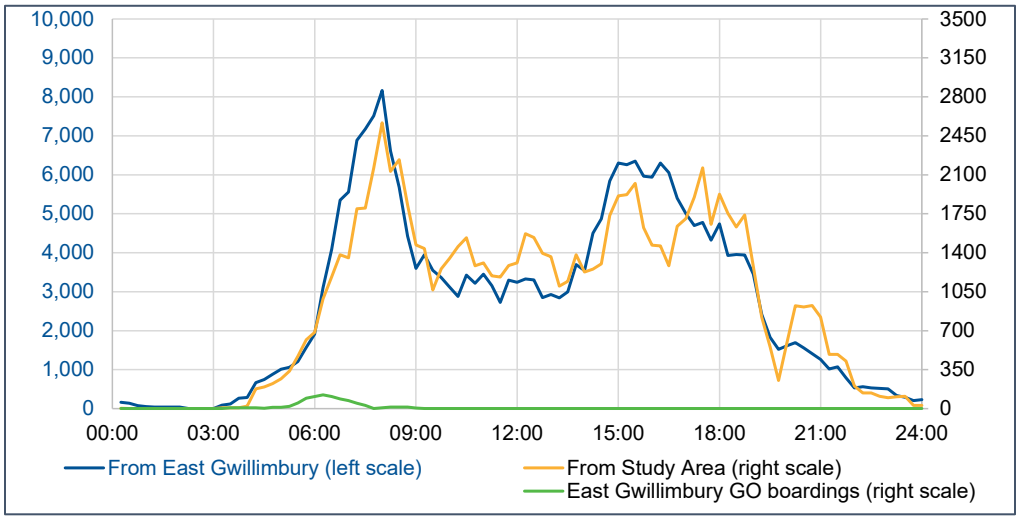
Trips originating in Toronto have a walk mode share of 20% and transit mode share of 20% as well. Given Toronto's higher densities and land use patterns, this might be considered an upper bound for the use of sustainable travel in the Secondary Plan area. However, Toronto cycling network still has growth potential, and hence its cycling mode share of approximately 3% could potentially be exceeded by the study area/East Gwillimbury.

4.1.4 When – Time of Travel

Outbound Trips

Figure 4.7 shows the start time for trips originating in the study area (yellow line), in East Gwillimbury (blue line), and trips that board at the East Gwillimbury GO station (green line)[4].

Figure 4.7: Trip Start Time For Outbound Trips



The chart shows two clear peaks for trips from East Gwillimbury: around 08:00 and 15:30. The latter relates to school trips, but the peak continues into the late afternoon/early evening. By contrast, the morning peak is briefer.

The distribution of trips from the study area is similar to East Gwillimbury as a whole. The exception includes the study area indicates multiple peaks during the afternoon/evening period (around 15:30, 17:00, and 20:00). The AM is generally busier than the PM.

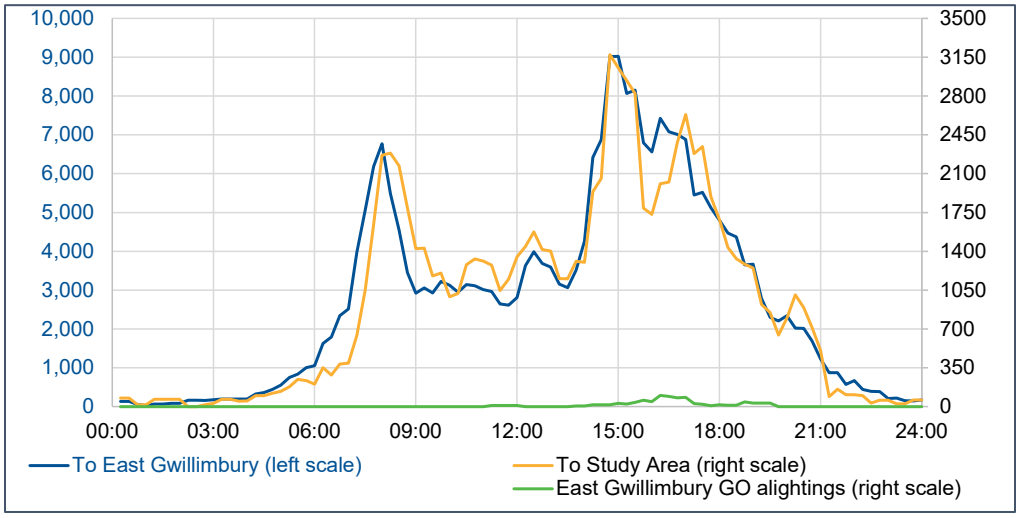
Trips involving boarding at the East Gwillimbury GO station have one major peak in the morning, with nearly 97% of those trips starting between 05:00 and 09:15. Boardings are then near zero for the rest of the day. This is consistent with earlier observations about the GO Train being primarily used for commuting to downtown Toronto on weekdays.

Inbound Trips

[4] The latter is *not* the boarding time. Given the origins of trips boarding at East Gwillimbury GO station, the boarding time is probably about 15-20 minutes after the trip start time.

Figure 4.8 shows the start time for trips going to the study area (yellow line), to East Gwillimbury (blue line), and trips that alight at the East Gwillimbury GO station (green line)[5].

Figure 4.8: Trip Start Time For Inbound Trips



The inbound trips time of travel distributions are similar to the outbound trips. However, the PM peak for inbound trips is higher than the AM peak, while the AM peak for outbound trips is higher than the PM peak. This is consistent with commuter travel patterns.

Trips involving alighting at the East Gwillimbury GO station have two peaks in the afternoon/evening (around 16:30 and 19:00). Around 92% of trips alighting at East Gwillimbury GO start between 15:00 and 19:45. Again, this is consistent with the GO Train being primarily used for commuting to downtown Toronto.

4.2 Roads and Traffic Control

4.2.1 Existing Conditions

The study area is connected by a grid-based road network, comprising of regional arterials, major collectors, minor collectors, collectors, and local roads.

Table 4.1 summarizes the characteristics of the roads in the study area. Reference was made to the Town of East Gwillimbury Official Plan (October 2018 Consolidation) Schedule 8 – Road Network.

[5] The latter is *not* the alighting time. Given the origins of trips alighting at East Gwillimbury GO station, the alighting time is probably about 90 minutes after the trip start time.

Figure 4.9 illustrates the traffic control methods at the study area intersections.

4.2.2 Planned Improvements

Based on related planning documentations, several new roads and existing road network improvements are identified within the study area. This includes:

- Several new major/minor collector roads within the Town (as illustrated in **Figure 1.2**);
- Widening of Leslie Street from two lanes to four lanes between Mount Albert Road and Queensville Sideroad, and between Green Lane and Colonel Wayling Boulevard;
- Widening of Doane Road from two to four lanes between Woodbine Avenue and Yonge Street;
- Widening of Yonge Street from 4 to 6 lanes between Davis Drive and Green Lane;
- New interchanges at Highway 404 and Doane Road; and
- Bradford Bypass (connecting Highway 400 and Highway 404).

Figure 4.10 provides a summary map of the planned road network improvements. **Table 4.2** lists the detailed planned new roads and existing road network improvements.

TABLE 4.1: ROAD CHARACTERISTICS

Road	Direction	Jurisdiction	Classification	Cross-Section	Speed Limit
Queensville Sideroad (RR 77)	East-West	Region	Regional Arterial	2 lanes	60-70 km/h
Doane Road (RR 45)	East-West	Region	Regional Arterial	2 lanes	60-70 km/h
Bradford Street (RR 13)	East-West	Region	Regional Arterial	2 lanes	50 km/h
Thompson Drive	East-West	Town	Minor Collector	2 lanes	40 km/h
Mt. Albert Road (RR 13)	East-West	Region	Regional Arterial	2-3 lanes	50-60 km/h
Queen Street	East-West	Town	Local Road	2 lanes	40 km/h
Holland Landing Road (RR 83)	East-West	Region	Regional Arterial	2 lanes	60 km/h
Old Yonge Street	East-West	Town	Collector	2 lanes	40 km/h
Morning Sideroad	East-West	Town	Collector	2 lanes	50-60 km/h
Silk Twist Drive	East-West/North-South	Town	Minor Collector	2 lanes	40 km/h
Farr Avenue	East-West	Town	Local Road	2 lanes	40 km/h
Green Lane (RR 19)	East-West	Region	Regional Arterial	4-5 lanes	70 km/h
Yonge Street (RR 51)	North-South	Region	Regional Arterial	2 lanes	50 km/h
2nd Concession Road (RR 34)	North-South	Region	Regional Arterial	2-5 lanes	50-70 km/h
Leslie Street (RR 12)	North-South	Region	Regional Arterial	2-3 lanes	50-80 km/h
Highway 11 (RR 1)	North-South	Region	Regional Arterial	4 lanes	70 km/h
Murrell Boulevard	North-South	Town	Major Collector	2-3 lanes	40 km/h
Woodbine Avenue (RR 8)	North-South	Region	Regional Arterial	2-4 lanes	80 km/h
Yonge Street (RR 1)	North-South	Region	Yonge Street (RR 1)	5 lanes	60-70 km/h
Colonel Wayling Boulevard	North-South	Town	Minor Collector	2 lanes	40 km/h
Harry Walker Parkway	North-South	Town	Collector	2 lanes	50 km/h
Milne Lane	East-West	Town	Local Road	2 lanes	40 km/h
Jim Mortson Drive	East-West	Town	Local Road	2 lanes	40 km/h

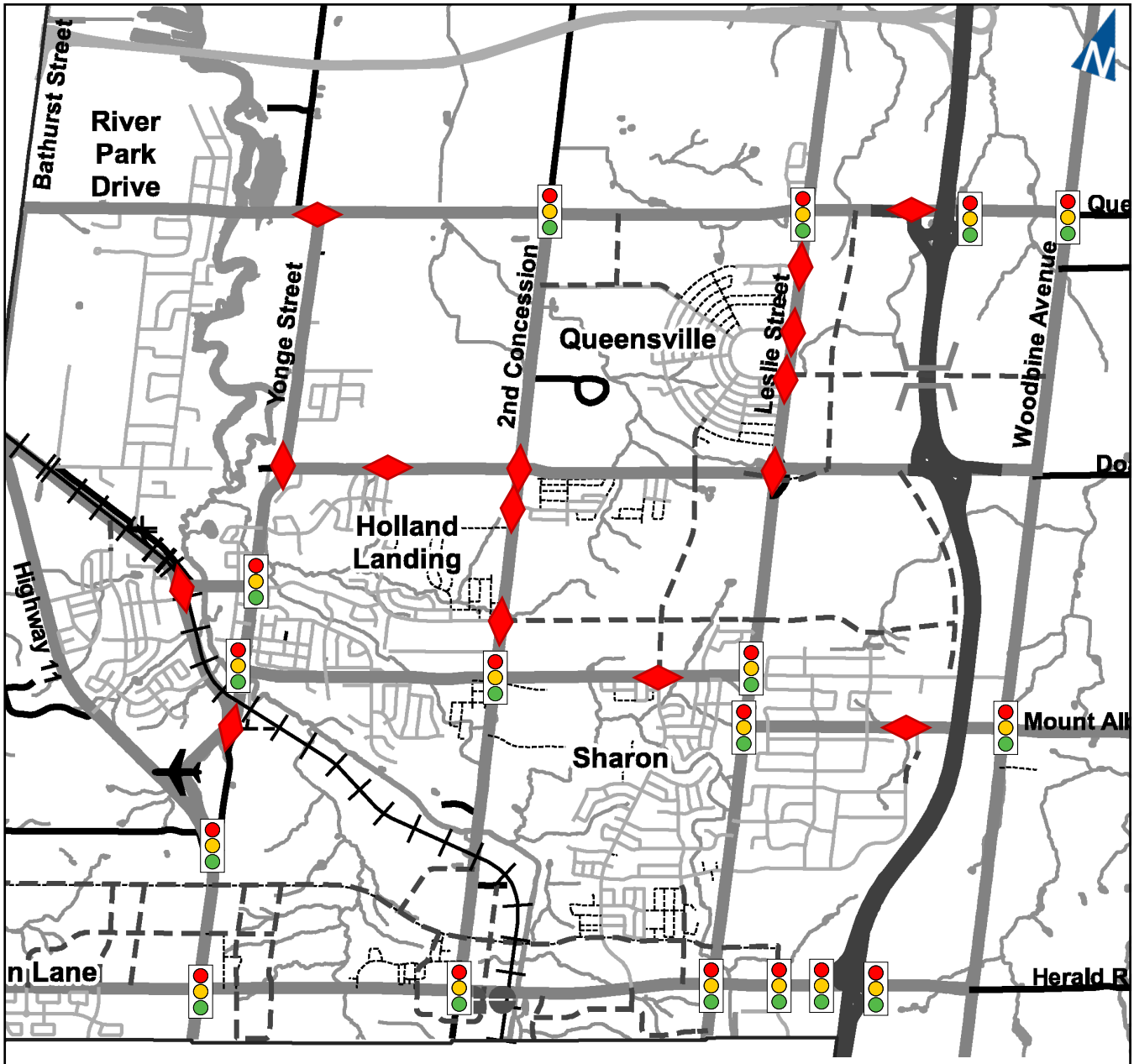
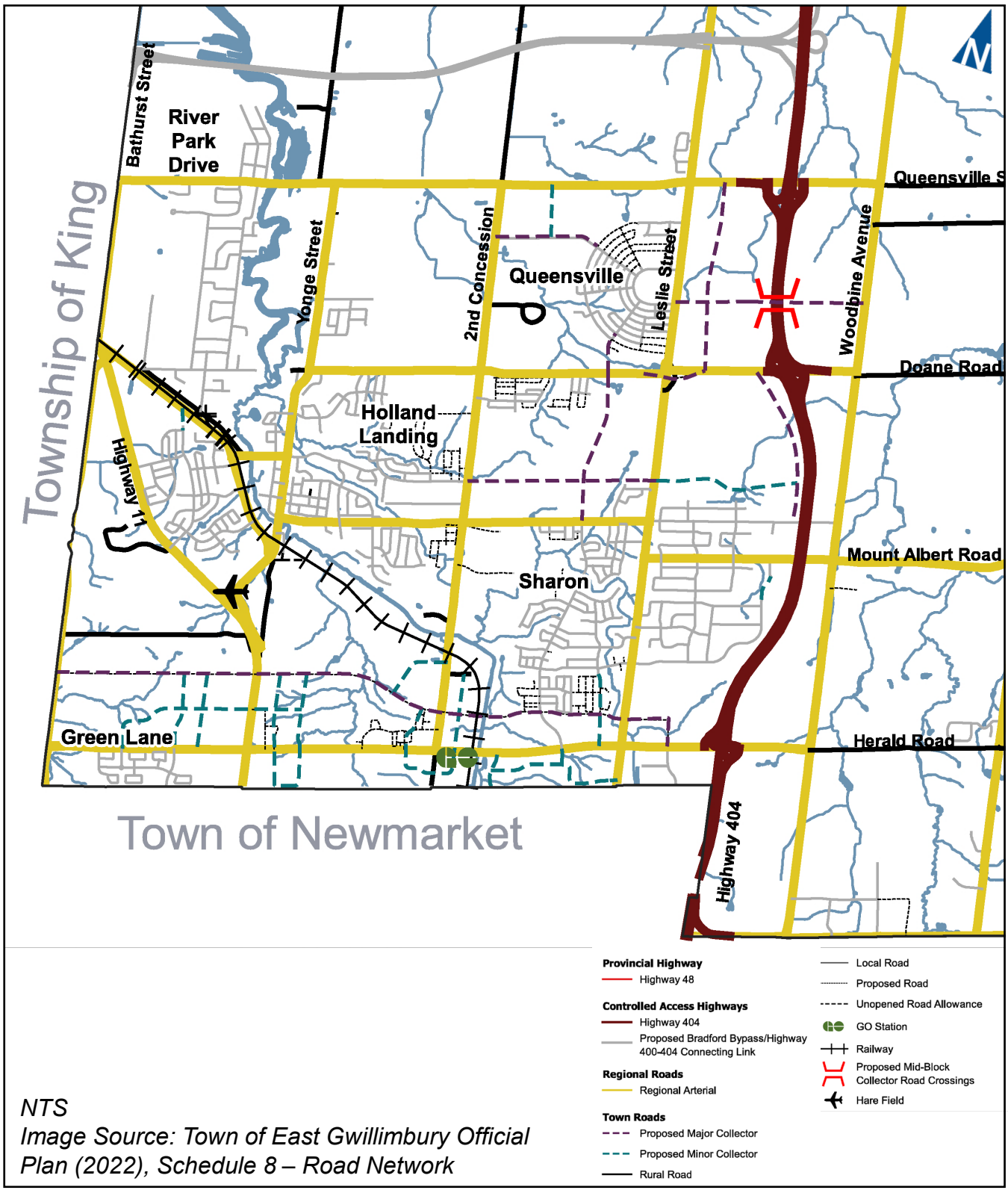


Image Source: East Gwillimbury Official Plan (2022) Schedule 8 – Road Network.

Legend

- Traffic Control Signal
- Two-way Stop Control on N-S Approaches
- Two-way Stop Control on E-W Approaches
- Roundabout
- All-way Stop Control

Existing Traffic Control Methods



NTS
Image Source: Town of East Gwillimbury Official Plan (2022), Schedule 8 – Road Network

Planned Road Network

TABLE 4.2: PLANNED ROAD NETWORK IMPROVEMENTS

Road	Direction	Jurisdiction	Classification	Description	ROW
New Road A	North-South	Town	Minor Collector	New road	22 m
New Road B	East-West	Town	Minor Collector	New road	22 m
New Road C	East-West	Town	Major Collector	New road	26 m
New Road D	North-South	Town	Major Collector	New road	26 m
New Road E (midblock crossing of Highway 404)	East-West	Town	Major Collector	New road	26 m
New Road F	North-South	Town	Major Collector	New road	26 m
New Road G	East-West	Town	Minor Collector	New road	22 m
New Road H	East-West	Town	Major Collector	New road	26 m
New Road J	North-South	Town	Major Collector (from Queensville Sideroad to Woodbine Avenue)	New road	26 m
New Road J	North-South	Town	Minor Collector (from Doane Road and Queensville Sideroad)	New road	22 m
New Road K	East-West	Town	Minor Collector	New road	22 m
New Road L	East-West	Town	Major Collector	New road	26 m
New Road M	North-South/East-West	Town	Major Collector (from Queensville Sideroad to Leslie Street)	New road	26 m
New Road M	North-South	Town	Minor Collector (from Jim Mortson Drive to Queensville Sideroad)	New road	22 m
New Road N	North-South	Town	Minor Collector	New road	22 m
New Road P	East-West	Town	Minor Collector	New road	22 m
New Road Q	North-South	Town	Major Collector (from Queensville Sideroad to New Road L)	New road	26 m

Road	Direction	Jurisdiction	Classification	Description	ROW
New Road Q	North-South	Town	Minor Collector (from New Road L to 2nd Concession Road	New road	22 m
New Road R	North-South	Town	Minor Collector	New road	22 m
New Road S	North-South	Town	Minor Collector	New road	22 m
Murrell Boulevard Extension	North-South	Town	Major Collector	New road	26 m
Queensville Sideroad[6]	East-West	Region	Regional Arterial	between Leslie Street and Woodbine Avenue, detailed improvements unknown	-
Leslie Street[7]	North-South	Region	Regional Arterial	Widen from two lanes to four lanes between Queensville Sideroad and Doane Road, and between Colonel Wayling Boulevard and Green Lane	-
Doane Road[8]	East-West	Region	Regional Arterial	Widen from two lanes to four lanes between Yonge Street and Woodbine Avenue, including intersection improvements at Doane Road and Leslie Street	-
Yonge Street[9]	North-South	Region	Regional Arterial	Widen from four lanes to six lanes between Davis Drive and Green Lane, including high occupancy vehicle (HOV) lanes by 2027	-
Doane Road Interchanges[10]	-	Region/MTO	-	New interchanges with Highway 404	-
Bradford Bypass[11]	East-West	MTO	Provincial Highway	New interchanges with Leslie Street	-

6 York Region, 2022 Transportation Master Plan, *Map 4 – 2051 Road Network*, p106.
7 HDR, *Transportation Master Plan Update, Appendix B – Analysis of Planning Strategies*, March 2024, p2.
8 ibid.
9 https://www.york.ca/transportation/roads/road-construction-schedule/yonge-street-davis-drive-green-lane
10 York Region, *2022 Transportation Master Plan*, *Map 4 – 2051 Road Network*, p106.
11 AECOM, *Final Environmental Impact Assessment Report, Appendix B – Updated Technically Preferred Route Roll Plan*, November 16, 2023.

4.3 Transit

4.3.1 Existing Conditions

Transit service in the study area is provide by York Region Transit (YRT) (local bus service) and GO Transit (inter-regional bus and train services). **Table 4.3**Table 4.3 lists their services within the study area and **Figure 4.11** illustrates the relevant portion of YRT's system map.

The local YRT routes provide connections within East Gwillimbury and to other municipalities in York Region, as well as to GO Transit service. Specifically:

- YRT route 54 BAYVIEW provides a direct connection to the East Gwillimbury GO Station. YRT Mobility On-Request service is also available at the GO Station;
- YRT route 44 BRISTOL and route 52 HOLLAND LANDING connect to the Newmarket GO Bus Terminal; and
- YRT route 50 QUEENSWAY offers a direction connection to the Newmarket GO Station.

The Barrie GO rail service facilitates inter-regional travel to the City of Toronto, Simcoe County, and other municipalities within York Region. The current Barrie Go rail service is structured to accommodate commuter demand and provide off-peak alternatives. On weekdays, there are eight departure runs from Barrie to Toronto in the morning, with headways varying from 10 to 60 minutes to align with peak demand. In the afternoon/evening, seven return runs are provided from Toronto to Barrie with headways ranging from 15 to 60 minutes. On weekends, the Barrie GO line operates with six departure runs from Barrie to Toronto and seven return runs from Toronto to Barrie across the day.

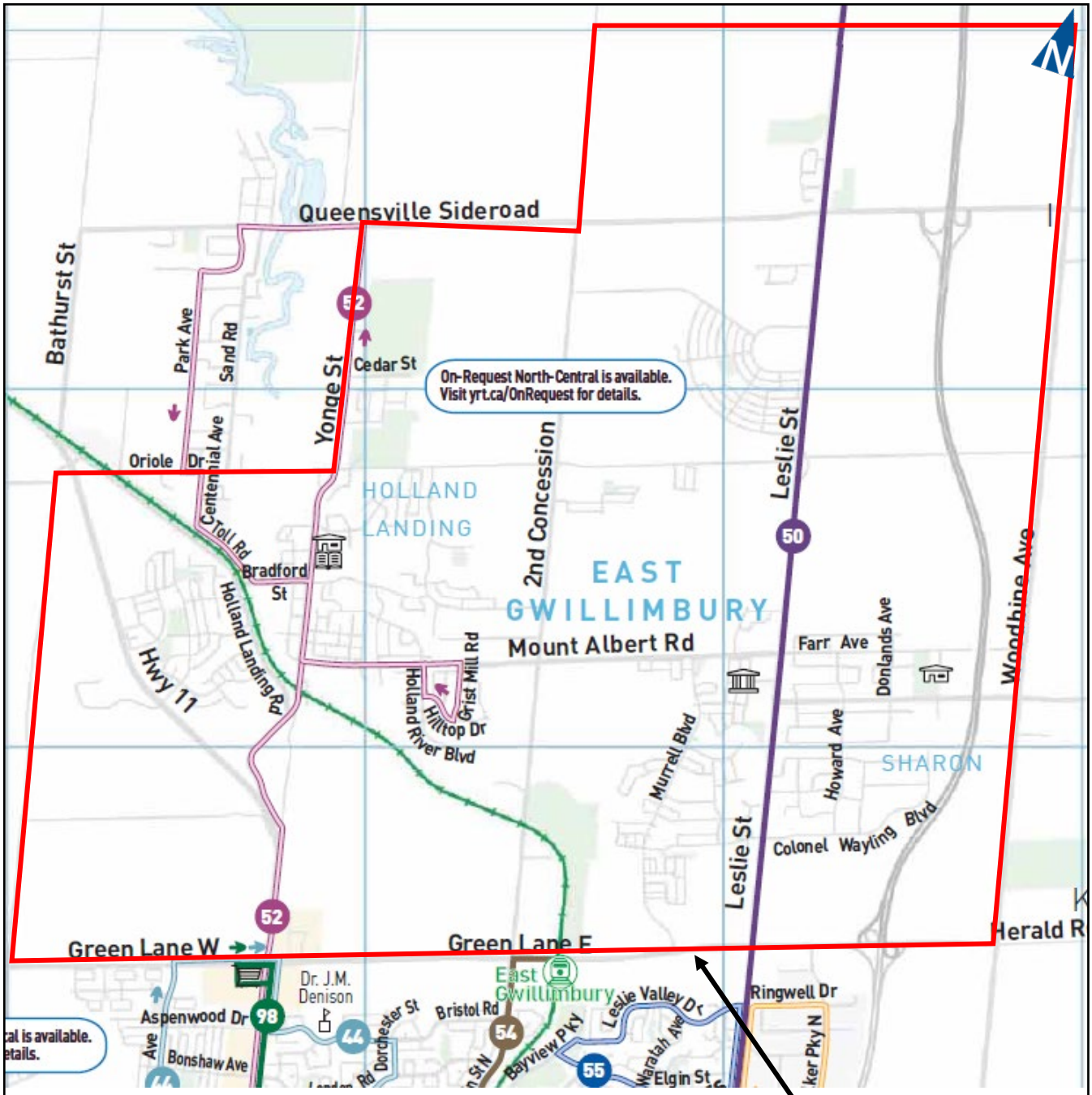
During periods when Barrie GO rail service is not operating, GO Transit provides supplementary GO Bus service, specifically, GO bus routes 65 and 68. These bus routes are integrated with the train schedule and ensure continuous GO transit coverage. GO bus route 65 operates between Toronto and East Gwillimbury during weekday afternoon and overnight periods. GO bus route 68 operates between Newmarket and Barrie throughout the day. Both GO bus routes provide direct connection to the East Gwillimbury GO station and serves areas that are not directly served by the Barrie GO rail line.

Given the available transit services and infrastructure, inter-regional travel via transit is a viable option for the study area. Future residents

of the Secondary Plan area will be able to potentially access jobs and amenities throughout East Gwillimbury and beyond via YRT and GO Transit services.

TABLE 4.3: EXISTING TRANSIT SERVICE

Route	Service span		Typical headway	
	Weekday	Weekend	Peak	Off-Peak
York Region Transit				
44 BRISTOL	AM and PM peak periods	NA	40 mins	N/A
50 QUEENSWAY	All day	All day	30 mins	40 mins
52 HOLLAND LANDING	AM and PM peak periods	NA	60 mins	N/A
54 BAYVIEW	All day	All day (Saturday only)	25 mins	60 mins
98 YONGE	All day	All day	35 mins	50 mins
Mobility On-Request (65+)	Travel from an address to another address within 5 km in York Region.			
Mobility On-Request (North-Central)	Travel from an address to/from a YRT route or another address where a YRT route option is not available.			
GO Transit				
Barrie Line (East Gwillimbury GO Station)	AM peak: Eight southbound trips PM peak: seven northbound trips	Six southbound and seven northbound runs across the day	10-60 mins	60-180 mins
GO Bus Route 65 (Barrie)	Afternoon/over night	NA	30-60 mins	NA
GO Bus Route 68 (Barrie)	All day	All day	60 mins	180 mins



NTS
Image Source: York Region Transit System Map (Effective: June 29, 2025)

Existing Transit Service

4.3.2 Planned Improvements

The future transit network improvements include York Region Transit (YRT) and GO Transit service improvements.

As YRT is currently developing its 2026-2030 Business Plan, the *2021-2025 Business Plan*[12] was referenced for future transit improvements. Based on Figure 9 – Frequent Transit Network in the Plan, 2nd Concession Road, Leslie Street, and Green Lane are identified as "Frequent Transit Network" routes, meaning future transit routes on these roads will operate at frequencies of 15 minutes or better, six days a week, from 6 AM to 10 PM.

Green Lane between Yonge Street and Barrie GO rail line crossing is also identified as a "Bus Rapid Transit" route, implying bus rapid transit service will be provided and prioritized on this segment.

Metrolinx is currently working to expand the Barrie GO line service to provide two-way, all-day rapid transit service with 15 minutes headways. However, the timeline for the GO service improvement is unknown. The completion/operation of Barrie GO line expansion will further improve transit opportunities and leverage inter-regional transit use.

4.4 Active Transportation

4.4.1 Existing Conditions

Cycling

Cycling infrastructure typically consists of on-street and off-street facilities. On-street facilities comprise cycling lanes, signed cycling routes, and paved shoulders. Off-street facilities are in the form of multi-use or informal trails.

The following study area roadways provide designated or shared cycling facilities:

- **Green Lane**: a multi-use path on the south side from approximately 415 metres east of Bathurst Street to Yonge Street;
- **Mt. Albert Road**: a multi-use path on the south side from Leslie Street to Colonel Wayling Boulevard;

[12] York Region, *2021-2025 Business Plan, Figure 9 – Frequent Transit Network*, p19.

- **Murrell Boulevard**: on-street bike lanes on both sides from Mt. Albert Road and Green Lane; and
- **2nd Concession Road**: raised separated bike lanes on both sides between Doane Road and Green Lane.

The remaining study area roadways do not provide designated or shared cycling facilities, requiring cycling trips to be accommodated within the travelled sections of the existing roadways or paved shoulders, if available.

Figure 4.12 illustrates the existing cycling infrastructure within the study area.

Walking

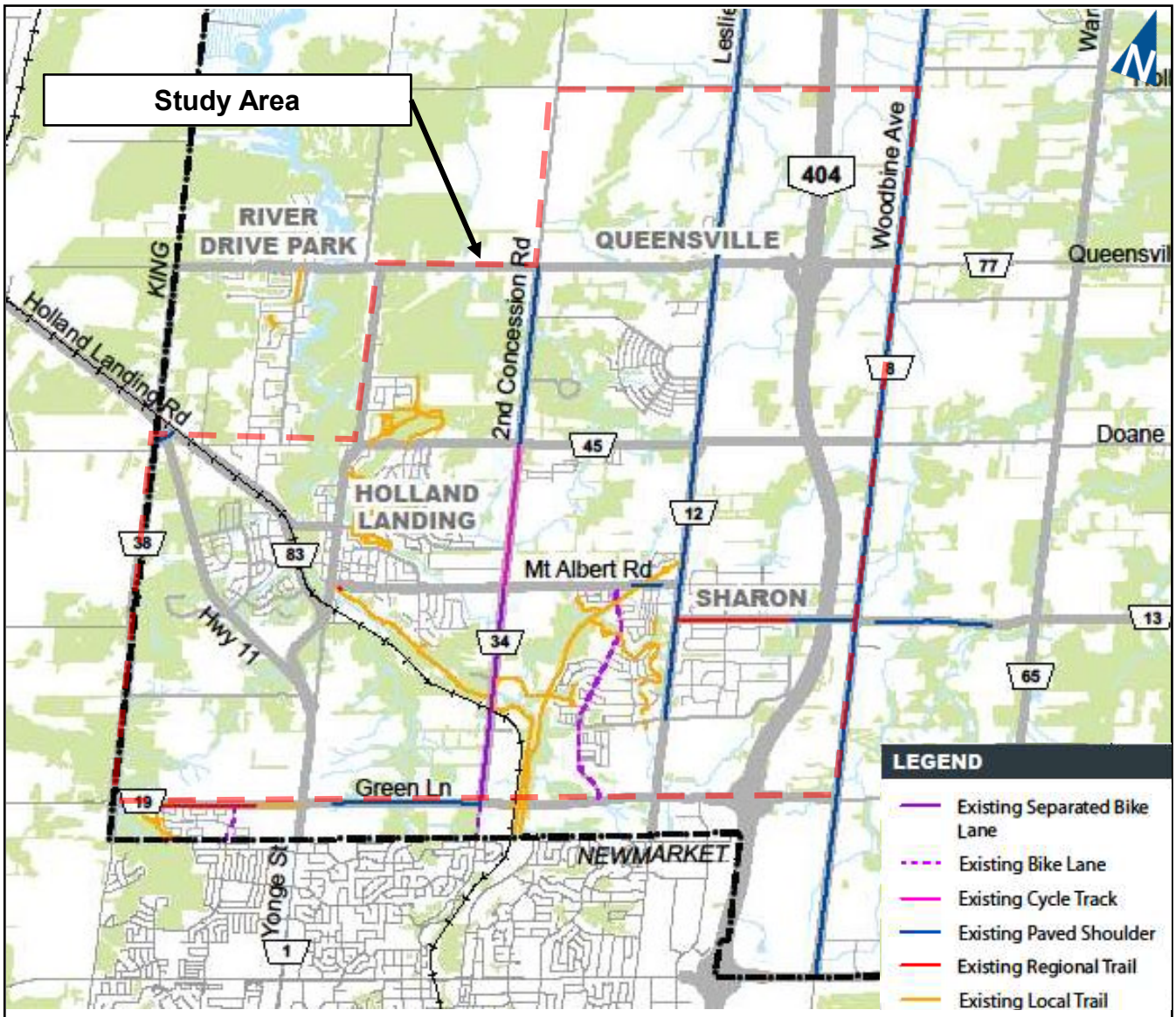
Figure 4.13 illustrates the locations of sidewalks and trails within the study area. Sidewalks are mostly provided on local roads within the existing communities of Holland Landing, Queensville, and Sharon. Discontinuous sidewalks are provided on several regional roads, including Yonge Street, Mt. Albert Road, Green Lane, 2nd Concession Road, and Leslie Street. The existing pedestrian infrastructure revealed several gaps that miss sidewalk connectivity between communities within the study area.

4.4.2 Planned Improvements

The Town of East Gwillimbury TMP Update (September 2024) shows a robust network of proposed pedestrian and cycling facilities. Sidewalks and cycling facilities are planned on new and existing arterial and collector roads, if not present under existing conditions. It is noted detailed cycling facility types are not specified in the TMP Update. The *Transportation Plan and Active Transportation Strategy* will assess and determine the appropriate cycling facility types for the study area roadways.

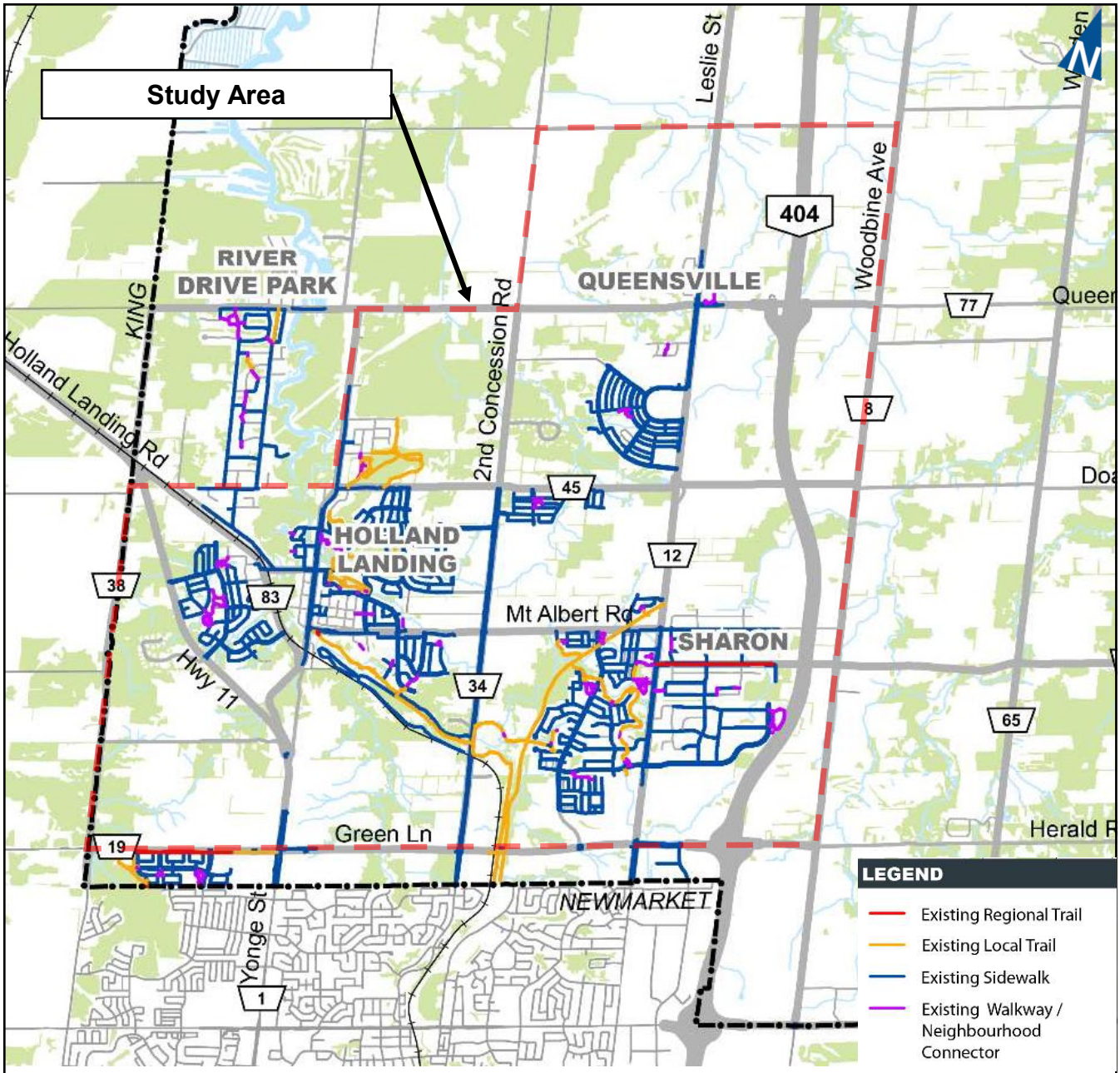
The planned active transportation network illustrates a connected network to serve pedestrians and cyclists both within and between the Town's community areas. This study will use the planned active transportation network as a starting point for future assessment and investigation.

Figure 4.14 illustrates the proposed 2051 cycling network. **Figure 4.15** illustrates the proposed 2051 sidewalk network.



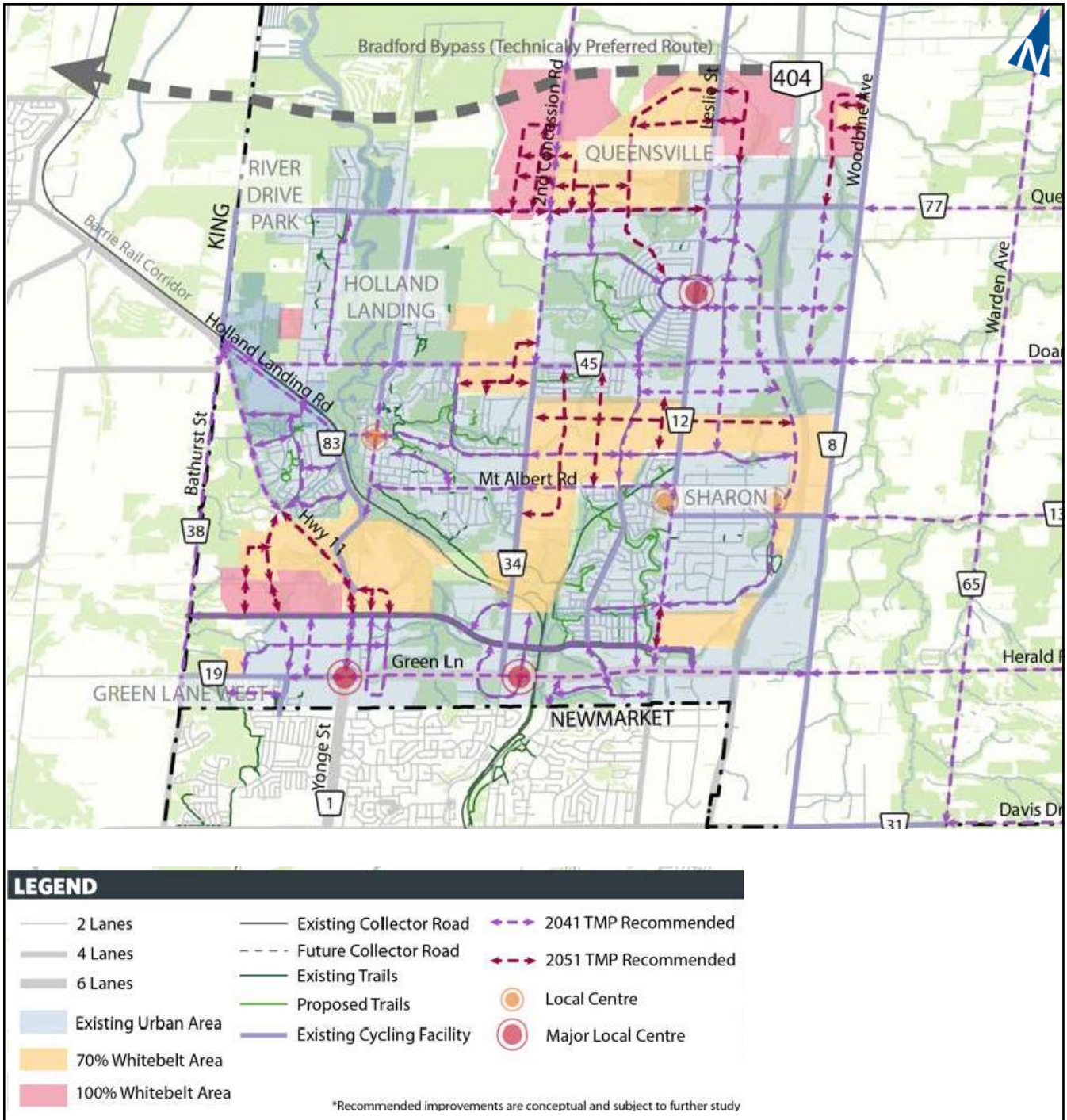
NTS
Image Source: Town of East Gwillimbury Transportation Master Plan Update (September 2024), Figure 4-9: Existing Cycling Network (2021)

Existing Cycling Network



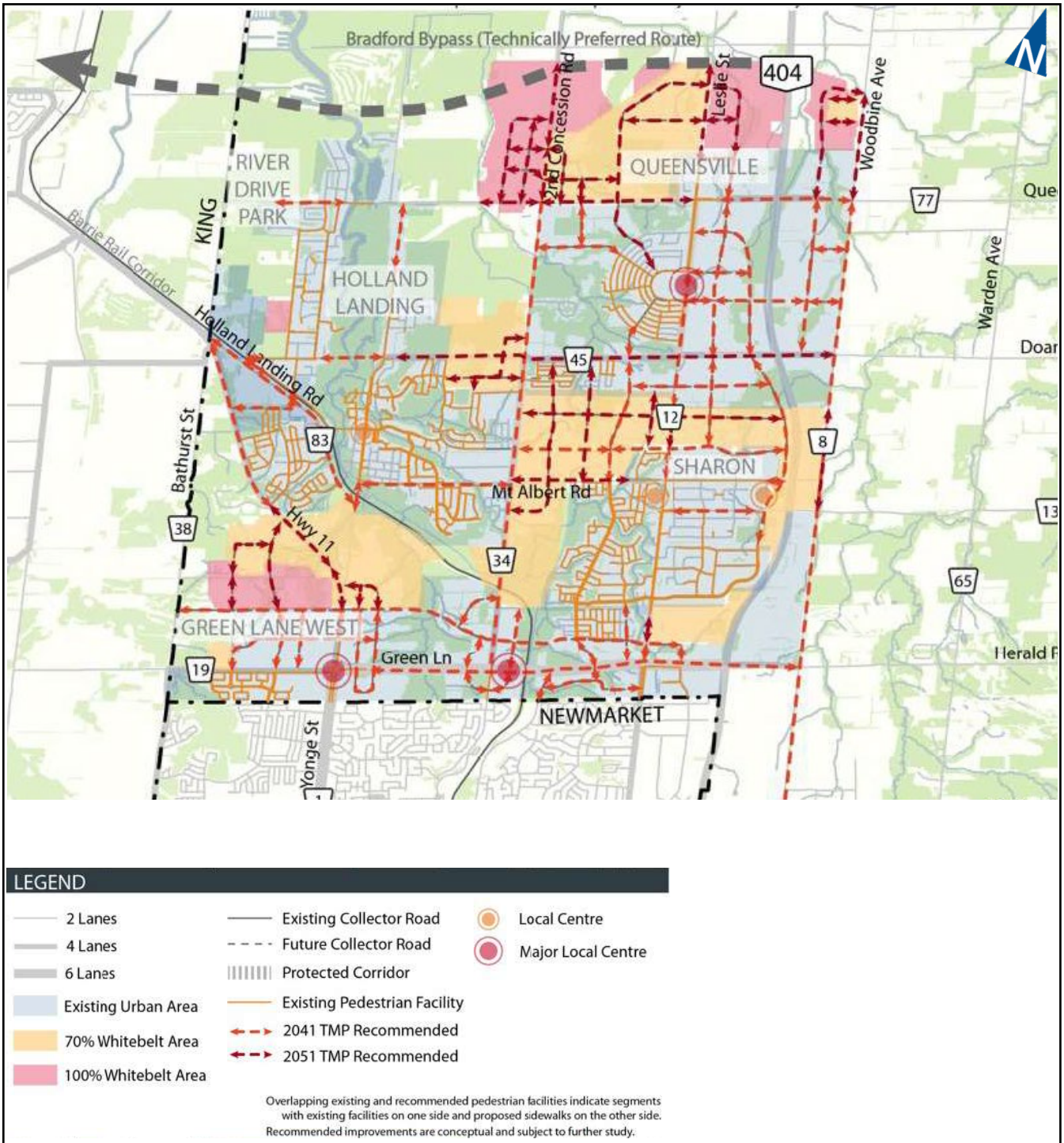
NTS
Image Source: Town of East Gwillimbury Transportation Master Plan Update (September 2024), Figure 4-8: Existing Sidewalks and Trails (2021)

Existing Sidewalk Network



NTS
Image Source: Town of East Gwillimbury Transportation Master Plan Update (September 2024), Figure 8-3: Proposed 2051 Cycling Network

Planned Cycling Network



NTS

Image Source: Town of East Gwillimbury Transportation Master Plan Update (September 2024), Figure 8-2: Proposed 2051 Sidewalk Network

Planned Sidewalk Network

4.5 Traffic Volumes

To assess intersection operations, turning movement counts (TMCs) are used to quantify the movement of vehicles, pedestrians, trucks, buses, and cyclists through an intersection. Existing traffic data at an intersection or on a road section forms the foundation for operational analysis. The counts are usually collected during peak periods to complete level of service (LOS) analysis under its worst-case operating conditions.

York Region provided the most recent turning movement counts (TMCs) for the existing study area intersections, where available. Paradigm collected TMCs at the remaining study area intersections (where TMCs were not provided) on Tuesday, May 14, 2024 from 7:00 AM to 7:00 PM. The data was counted in 15-minute intervals with vehicles classified by type. **Appendix A** contains the provided and collected traffic counts data for reference.

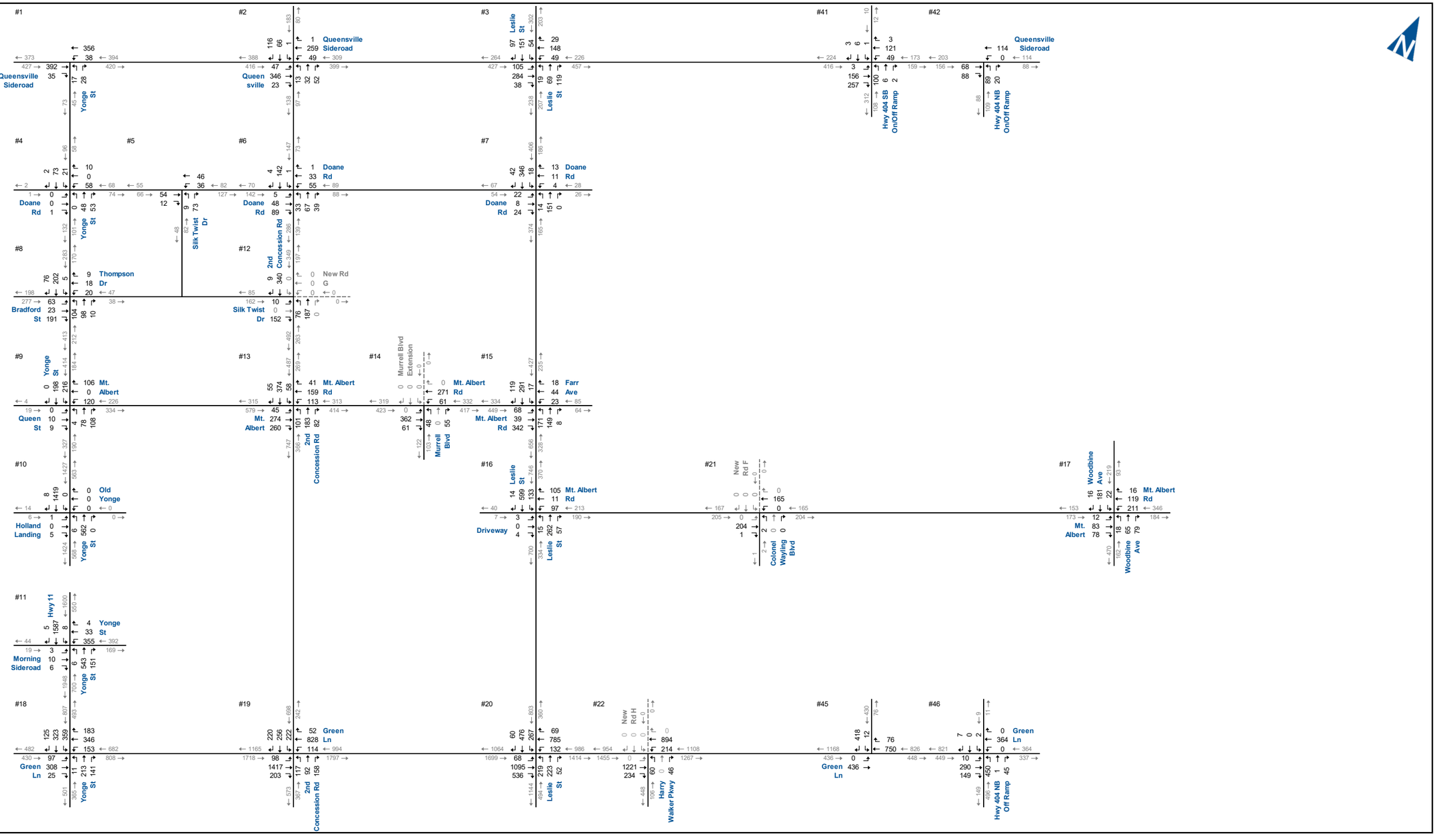
Table 4.4 summarizes the provided and collected TMC data.

The base year (2024) traffic volumes were estimated by applying a per annum compounded growth rate of 2% to all movements for TMCs prior to 2024. This growth rate was developed through a review of the historical AADT data along the study area regional roads, and represents a conservative approach (i.e., errs on the high end) as several regional roads indicated negative growth from 2013 to 2023. **Appendix B** contains the growth rate calculation for reference.

Figure 4.16 and **Figure 4.17** illustrate the base year (2024) traffic volumes during the AM and PM peak hours, respectively.

TABLE 4.4: AVAILABLE TMC DATA

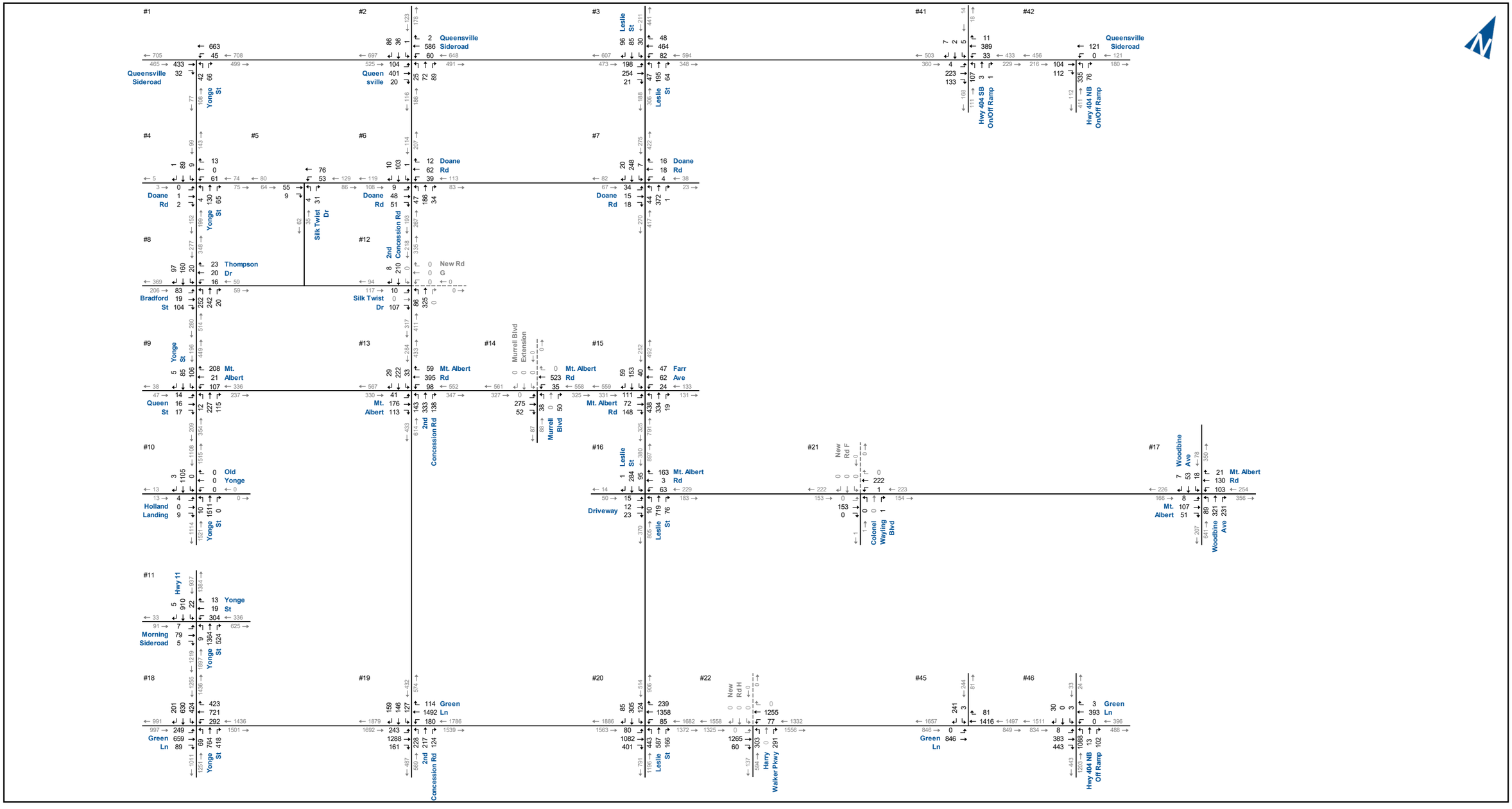
#	Intersection	Date	Weekday AM Peak Hour	Weekday PM Peak Hour
1	Queensville Sideroad & Yonge Street	2024-05-14	7:00 - 8:00	16:15 - 17:15
2	Queensville Sideroad & 2nd Concession Road	2024-05-14	7:30 - 8:30	16:00 - 17:00
3	Queensville Sideroad & Leslie Street	2024-05-14	7:45 - 8:45	16:00 - 17:00
4	Doane Road & Yonge Street	2023-07-26	7:45 - 8:45	17:00 - 18:00
5	Doane Road & Silk Twist Drive	2024-05-14	8:15 - 9:15	16:45 - 17:45
6	Doane Road & 2nd Concession Road	2023-03-09	8:00 - 9:00	16:15 - 17:15
7	Doane Road & Leslie Street	2023-02-02	8:00 - 9:00	15:15 - 16:15
8	Bradford Street /Thompson Drive & Yonge Street	2022-10-13	8:00 - 9:00	16:15 - 17:15
9	Mt. Albert Road/Queen Street & Yonge Street	2022-10-13	7:30 - 8:30	16:30 - 17:30
10	Holland Landing Road/Old Yonge Street & Yonge Street	2022-12-21	7:45 - 8:45	16:15 - 17:15
11	Highway 11 & Yonge Street/Morning Sideroad	2024-05-14	7:30 - 8:30	16:30 - 17:30
12	Silk Twist Drive/New Road G & 2nd Concession Road	2024-05-14	8:00 - 9:00	16:30 - 17:30
13	Mt. Albert Road & 2nd Concession Road	2024-05-14	8:00 - 9:00	16:15 - 17:15
14	Mt. Albert Road & Murrell Boulevard	2024-05-14	8:00 - 9:00	16:30 - 17:30
15	Mt. Albert Road/Farr Avenue & Leslie Street	2024-05-14	8:00 - 9:00	16:15 - 17:15
16	Mt. Albert Road & Leslie Street	2024-05-14	8:00 - 9:00	16:00 - 17:00
17	Mt. Albert Road & Woodbine Avenue	2022-06-16	7:45 - 8:45	16:30 - 17:30
18	Green Lane & Yonge Street	2022-09-17	8:00 - 9:00	15:30 - 16:30
19	Green Lane East & 2nd Concession Road	2024-02-21	7:30 - 8:30	16:30 - 17:30
20	Green Lane East & Leslie Street	2023-10-18	7:00 - 8:00	16:30 - 17:30
21	Mt. Albert Road & New Road F/Colonel Wayling Boulevard	2024-05-14	8:00 - 9:00	16:00 - 17:00
22	Highway 11 & Yonge Street/Morning Sideroad	2024-05-14	7:45 - 8:45	15:45 - 16:45
41	Queensville Sideroad & Highway 404 SB On/Off-ramp	2021-11-09	7:45 - 8:45	15:45 - 16:45
42	Queensville Sideroad & Highway 404 NB On/Off-ramp	2021-11-09	7:00 - 8:00	16:15 - 17:15
45	Green Lane East & Highway 404 SB Off-ramp	2021-11-09	7:30 - 8:30	16:00 - 17:00
46	Green Lane East & Highway 404 NB Off-ramp	2021-11-09	7:45 - 8:45	16:00 - 17:00



Base Year (2024) AM Peak Hour Traffic Volumes

East Gwillimbury Complete Communities Secondary Plan, Transportation Background Report
230671

Figure 4.16



Base Year (2024) PM Peak Hour Traffic Volumes

Figure 4.17

4.6 Traffic Operations

The quality of intersection operations at signalized intersections and unsignalized intersections is evaluated in terms of level of service (LOS) and volume-to-capacity (v/c) as defined by the Highway Capacity Manual (HCM). LOS is evaluated based on average control delay per vehicle which includes deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS ranges from LOS A for 10 seconds or less average delay to LOS F for average delay greater than 50 seconds. Capacity is evaluated in terms of the ratio of demand flow to capacity with an at capacity condition represented by a v/c ratio of 1.00 (i.e., volume demand equals capacity).

While the LOS and v/c for each movement are related, they are calculated independently. Therefore, it is possible to have a poor intersection LOS associated with a low v/c ratio or a good LOS associated with a high v/c ratio. The designation LOS F does not automatically imply that the volume demands at an intersection or on a specific movement exceed the theoretical capacity, nor does a LOS better than E automatically imply that unused capacity is available.

The York Region *Transportation Mobility Plan Guidelines for Development Applications*[13] (the Region Guidelines) identifies critical movements at intersections as follows:

- An intersection where the overall v/c ratio will exceed 0.85 in urban areas or 0.70 in rural areas;
- An individual movement v/c ratio will exceed 0.85 in urban areas or 0.70 in rural areas;
- An exclusive turning movement which will result in queues exceeding the available storage space; and
- Exclusive left- and right-turn lanes that are inaccessible due to the length of queues in the adjacent through lanes.

The MTO *General Guidelines for the Preparation of Traffic Impact Studies*[14] indicates for ramps, a v/c ratio for terminal approaches with a value greater than 0.75 would be deemed critical and shall be evaluated for possible operational improvements. This is applied to ramp terminal approaches at highway on/off-ramp intersections.

[13] York Region, *Transportation Mobility Plan Guidelines for Development Applications*, November 2016, p40.

[14] Ministry of Transportation Ontario, *General Guidelines for the Preparation of Traffic Impact Studies*, March 2023, p17.

To assess the base year peak hour conditions, a level of service analysis was conducted using Synchro software, which implements the methods of the Highway Capacity Manual. The key parameters used in the analysis include:

- Existing lane configurations;
- Heavy vehicle percentages derived from existing traffic count data;
- Conflicting pedestrian volumes derived from existing traffic count data;
- Calculated intersection peak hour factors (PHF), which facilitates an assessment of the busiest 15-minute period within the peak hour;
- Existing signal timing plans as obtained from York Region, which are included for reference in **Appendix C**; and
- Synchro default values for all other inputs.

Table 4.5 and **Table 4.6** summarize the results of the base year (2024) automobile conditions, indicating the existing level of service (LOS), average delays, volume-to-capacity (v/c) ratios, and 95th percentile queues experienced within the study area for the weekday AM and PM peak hours, respectively.

Any movements identified as critical movements are highlighted within the results table. **Appendix D** contains the Synchro analysis outputs for reference.

The results indicate all intersections and traffic movements are currently operating at acceptable levels of service and well within capacity. The exceptions include the following identified critical movements:

- The northbound through movement at Yonge Street and Holland Landing Road/Old Yonge Street with a v/c of 0.93 during the PM peak hour;
- The westbound shared left/through/right-turn movement at Yonge Street/Highway 11 and Morning Sideroad/Holland Landing Road with a v/c of 0.97 and 0.86 during the AM and PM peak hour, respectively;
- The eastbound through movement at 2nd Concession Road and Green Lane with a v/c of 0.88 during the PM peak hour;
- The westbound left-turn movement at Yonge Street and Green Lane with a v/c of 0.88 during the PM peak hour;

- The northbound left-turn movement at Leslie Street and Green Lane with a v/c of 1.27 during the PM peak hour;
- The westbound through movement at Green Lane and Highway 404 SB Off Ramp with a v/c of 0.95 during the PM peak hour; and
- The northbound left-turn and through movements at Highway 404 NB Off Ramp and Green Lane with a v/c of 0.83 and 0.82 during the PM peak hour, respectively.

All movements are reported to operate within capacity (v/c < 1.00), except for the northbound left-turn movement at Leslie Street and Green Lane. The movement is reported to operate with a v/c of 1.27 during the PM peak hour.

Under existing conditions, no movement should be operating with a v/c greater than 1.00 since this would indicate the counted volume was unable to clear the intersection. However, the results at Leslie Street and Green Lane were based upon the estimated 2024 traffic volumes and provided signal timing plan data. Accordingly, the model has also not been calibrated to account for specific driver behaviours at the intersection, such as the number of vehicles clearing during the clearance intervals. The omission of these calibration elements likely underestimates the real capacity of the movement, and illustrates an overcapacity condition.

The 95th percentile queue lengths were checked for all turn lanes against provided storage, and queue lengths for through movements were also checked. Several spillback issues were identified and highlighted within the results tables. However, the 95th percentile queue is an estimate of the longest queue that could occur during the peak hour. This level of queuing only has a five percent probability of occurring during the analysis period. It is not typical of what a motorist would experience on average. The 50th percentile average queues for the identified movements are determined to be accommodated by the existing storage provisions and taper lengths, assuming half of taper length could be used for storage.

It should be noted that the future detailed intersection improvements are recommended based on future traffic forecasts and planned road network. The purpose of the base year operational analysis is to assess the existing traffic operation conditions and indicate potential intersection improvements.

TABLE 4.5: BASE YEAR AM PEAK HOUR TRAFFIC OPERATION

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	Yonge Street & Queensville Sideroad	TWSC	LOS		A	>	A	A	A		A	B		>	B					
			Delay		0	>	0	8	0		1	15		>	15					
			V/C		0.27	>		0.04	0.23			0.11		>						
			Q		0	>		1	0			3		>						
			Stor.		-	>		25	-			-		>						
			Avail.		-	>		24	-			-		>						
	2nd Concession Road & Queensville Sideroad	TCS	LOS	A	A	>	A	A	A	>	A	B	B	B	B	B	B	>	B	B
			Delay	7	9	>	9	7	8	>	8	15	15	14	14	14	16	>	16	10
			V/C	0.10	0.46	>		0.11	0.32	>		0.06	0.09	0.03		0.00	0.28	>		0.40
			Q	7	40	>		7	28	>		5	8	6		1	20	>		
			Stor.	65	-	>		55	-	>		40	-	35		40	-	>		
			Avail.	58	-	>		48	-	>		35	-	29		39	-	>		
	Leslie Street & Queensville Sideroad	TCS	LOS	C	C	>	C	D	D	>	D	B	B	>	B	B	B	>	B	C
			Delay	23	29	>	27	36	40	>	39	11	12	>	12	12	13	>	13	23
			V/C	0.29	0.56	>		0.28	0.55	>		0.03	0.18	>		0.10	0.28	>		0.41
			Q	26	79	>		20	55	>		7	26	>		14	48	>		
			Stor.	25	-	>		30	-	>		35	-	>		25	-	>		
			Avail.	-1	-	>		10	-	>		28	-	>		11	-	>		
	Yonge Street & Doane Road	TWSC	LOS	A	A	>	A	B	A	>	B	A	A	>	A	A	A	>	A	
			Delay	0	9	>	9	10	9	>	10	0	0	>	0	8	0	>	2	
			V/C	0	0	>		0.09	0.01	>		0	0.07	>		0.02	0.05	>		
			Q	0	0	>		2	0	>		0	0	>		0	0	>		
			Stor.	20	-	>		35	-	>		25	-	>		35	-	>		
			Avail.	20	-	>		33	-	>		25	-	>		35	-	>		
	Silk Twist Drive & Doane Road	TWSC	LOS		A	>	A	<	A		A	A		>	A					
			Delay		0	>	0	<	3		3	9		>	9					
			V/C		0.04	>		<	0.03			0.09		>						
			Q		0	>		<	1			2		>						
	2nd Concession Road & Doane Road	TWSC	LOS	<	B	>	B	<	B	>	B	A	A	>	A	A	A	>	A	
			Delay	<	11	>	11	<	14	>	14	8	0	>	2	9	0	>	0	
			V/C	<	0.2	>		<	0.19	>		0.02	0.03	>		0	0.06	>		
			Q	<	6	>		<	6	>		1	0	>		0	0	>		
			Stor.	<	-	>		<	-	>		85	-	>		85	-	>		
			Avail.	<	-	>		<	-	>		84	-	>		85	-	>		
	Leslie Street & Doane Road	TWSC	LOS	<	B	>	B	<	B	>	B	<	A	>	A	<	A	>	A	
			Delay	<	14	>	14	<	12	>	12	<	1	>	1	<	0	>	0	
			V/C	<	0.12	>		<	0.06	>		<	0.01	>		<	0.01	>		
			Q	<	3	>		<	1	>		<	0	>		<	0	>		
	Yonge Street & Bradford Street/Thompson Drive	TCS	LOS	C	C	>	C	C	C	>	C	A	A	>	A	A	B	>	B	B
			Delay	26	25	>	25	25	24	>	24	5	5	>	5	9	11	>	11	15
			V/C	0.32	0.23	>		0.14	0.08	>		0.17	0.10	>		0.01	0.33	>		0.31
			Q	18	20	>		8	9	>		10	11	>		2	41	>		
			Stor.	40	-	>		30	-	>		50	-	>		55	-	>		
			Avail.	22	-	>		22	-	>		40	-	>		53	-	>		
	Yonge Street & Queen Street/Mt. Albert Road	TCS	LOS	A	C	>	C	C	C	>	C	<	B	B	B	<	A	>	A	B
			Delay	0	22	>	22	26	22	>	24	<	11	10	10	<	9	>	9	14
			V/C	0.00	0.04	>		0.50	0.07	>		<	0.11	0.07		<	0.51	>		0.55
			Q	0	6	>		30	0	>		<	15	8		<	48	>		
			Stor.	8	-	>		50	-	>		<	-	20		<	-	>		
			Avail.	8	-	>		20	-	>		<	-	12		<	-	>		
	Yonge Street & Holland Landing Road/Old Yonge Street	TWSC	LOS	F	D	>	E	<	A	>	A	B	A	A	A	A	A	A	A	
			Delay	102	29	>	42	<	0	>	0	13	0	0	0	0	0	0	0	
			V/C	0.03	0.03	>		<	0	>		0.01	0.35	0		0	0.88	0		
			Q	1	1	>		<	0	>		0	0	0		0	0	0		
			Stor.	50	-	>		<	-	>		55	-	20		35	-	35		
			Avail.	49	-	>		<	-	>		55	-	20		35	-	35		
	Yonge Street /Highway 11 & Morning Sideroad/Holland Landing Road	TCS	LOS	<	C	>	C	<	E	>	E	B	B	B	B	B	C	B	C	C
			Delay	<	30	>	30	<	78	>	78	17	15	13	15	13	28	12	28	32
			V/C	<	0.03	>		<	0.97	>		0.10	0.30	0.11		0.03	0.85	0.00		0.89
			Q	<	9	>		<	177	>		4	54	10		4	231	0		
			Stor.	<	-	>		<	-	>		85	-	60		120	-	80		
			Avail.	<	-	>		<	-	>		81	-	50		116	-	80		
	2nd Concession Road & Silk Twist Drive	TWSC	LOS	B		>	B					A	A		A		A	>	A	
			Delay	12		>	12					9	0		2		0	>	0	
			V/C	0.26		>						0.08	0.06				0.16	>		
			Q	8		>						2	0				0	>		
			Stor.	-		>						35	-				-	>		
			Avail.	-		>						33	-				-	>		
	2nd Concession Road	TCS	LOS	B	B	B	B	B	B	B	B	B	B	>	B	C	C	>	C	B
			Delay	16	19	17	18	19	17	15	18	15	15	>	15	22	24	>	24	19
			V/C	0.11	0.45	0.21		0.36	0.27	0.04		0.34	0.18	>		0.22	0.47	>		0.45
			Q	12	54	13		27	32	1		21	19	>		19	48	>		
			Stor.	100	-	25		90	-	20		-	-	>		60	-	>		
			Avail.	88	-	12		63	-	19		-	-	>		41	-	>		

TABLE 4.5: BASE YEAR AM PEAK HOUR TRAFFIC OPERATION (CONT'D)

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	Murrell Boulevard & Mt. Albert Road	TWSC	LOS		A	A	A	A	A		A	B		B	B					
			Delay		0	0	0	9	0		2	12		11	12					
			V/C		0.22	0.04		0.06	0.17			0.1		0.09						
			Q		0	0		2	0			3		2						
			Stor.		-	45		45	-			-		-						
			Avail.		-	45		43	-			-		-						
	Leslie Street & Mt. Albert Road/Farr Avenue	TCS	LOS	D	D	>	D	D	D	>	D	A	A	>	A	A	A	>	A	B
			Delay	42	41	>	41	42	39	>	40	5	4	>	5	4	6	>	6	20
			V/C	0.41	0.42	>		0.32	0.20	>		0.29	0.12	>		0.02	0.33	>		0.34
			Q	25	36	>		12	19	>		22	17	>		4	51	>		
			Stor.	40	-	>		15	-	>		30	-	>		20	-	>		
			Avail.	15	-	>		3	-	>		8	-	>		16	-	>		
	Leslie Street & Mt. Albert Road	TCS	LOS	D	D	>	D	D	D	>	D	A	A	A	A	A	A	A	A	B
			Delay	37	37	>	37	45	38	>	41	4	5	4	5	5	7	4	7	12
			V/C	0.02	0.00	>		0.58	0.15	>		0.04	0.23	0.05		0.21	0.51	0.01		0.52
			Q	3	0	>		36	18	>		4	33	5		21	86	0		
			Stor.	-	-	>		30	-	>		40	-	10		25	-	25		
			Avail.	-	-	>		-6	-	>		36	-	5		4	-	25		
	Woodbine Avenue & Mt. Albert Road	TCS	LOS	C	C	C	C	D	C	C	D	A	A	A	A	B	B	B	B	C
			Delay	29	31	30	30	49	32	29	42	8	8	8	8	11	11	11	11	26
			V/C	0.05	0.21	0.06		0.78	0.32	0.01		0.03	0.04	0.07		0.04	0.11	0.01		0.31
			Q	6	25	9		64	34	0		5	7	7		8	21	0		
			Stor.	90	-	45		110	-	50		35	-	30		50	-	50		
			Avail.	84	-	36		46	-	50		30	-	23		42	-	50		
	Yonge Street & Green Lane	TCS	LOS	D	D	D	D	D	D	C	D	C	C	C	C	E	B	B	C	D
			Delay	41	52	45	49	46	53	30	45	22	25	25	25	57	15	14	34	39
			V/C	0.47	0.61	0.02		0.67	0.66	0.14		0.03	0.18	0.11		0.76	0.19	0.10		0.46
			Q	34	57	0		50	64	10		4	35	12		66	39	9		
			Stor.	30	-	30		170	-	170		90	-	35		90	-	45		
			Avail.	-4	-	30		120	-	160		86	-	23		24	-	36		
	2nd Concession Road & Green Lane	TCS	LOS	B	D	B	C	D	C	B	C	D	D	>	D	E	E	D	D	C
			Delay	14	36	19	33	39	20	16	22	44	45	>	45	56	61	44	54	35
			V/C	0.29	0.88	0.21		0.69	0.37	0.04		0.58	0.22	>		0.79	0.78	0.15		0.83
			Q	22	272	37		47	75	0		38	23	>		70	96	21		
			Stor.	100	-	40		70	-	30		100	-	>		80	-	-		
			Avail.	78	-	3		23	-	30		62	-	>		10	-	-		
	Leslie Street & Green Lane	TCS	LOS	C	D	C	D	D	D	F	D	D	D	D	D	D	E	D	D	D
			Delay	21	40	34	38	45	42	139	49	42	47	44	44	37	56	43	49	44
			V/C	0.23	0.82	0.58		0.59	0.56	0.05		0.69	0.38	0.04		0.61	0.77	0.04		0.76
			Q	19	226	116		52	131	11		57	39	0		70	83	3		
			Stor.	30	-	60		80	-	35		25	-	30		50	-	30		
			Avail.	11	-	-56		28	-	24		-32	-	30		-20	-	27		
	Colonel Wayling Boulevard & Mt. Albert Road	TWSC	LOS		A	>	A	<	A		A	B		>	B					
			Delay		0	>	0	<	0		0	11		>	11					
			V/C		0.14	>		<	0			0		>						
			Q		0	>		<	0			0		>						
	Harry Walker Parkway & Green Lane	TCS	LOS		A	A	A	C	A		B	D		D	D					B
			Delay		9	3	8	21	9		12	45		42	44					11
			V/C		0.67	0.22		0.68	0.40			0.20		0.03						0.59
			Q		39	3		42	64			28		11						
			Stor.		-	40		75	-			-		-						
			Avail.		-	37		33	-			-		-						
	Hwy 404 SB On/Off Ramp/Driveway & Queensville Sideroad	TWSC	LOS	A	A	A	A	A	A	>	A	<	B	A	B	B	B	>	B	
			Delay	8	0	0	0	8	0	>	2	<	13	0	13	11	12	>	12	
			V/C	0	0.05	0.16		0.04	0.05	>		<	0.21	0		0	0.02	>		
			Q	0	0	0		1	0	>		<	6	0		0	0	>		
			Stor.	-	-	45		200	-	>		<	-	55		-	-	>		
			Avail.	-	-	45		199	-	>		<	-	55		-	-	>		
	Hwy 404 NB On/Off Ramp & Queensville Sideroad	TCS	LOS		A	A	A	A	A		A	B		B	B					A
			Delay		6	6	6	0	6		6	17		17	17					9
			V/C		0.04	0.07		0.00	0.08			0.17		0.01						0.11
			Q		4	6		0	6			8		4						
			Stor.		-	100		90	-			-		70						
			Avail.		-	94		90	-			-		66						
	Green Lane & Hwy 404 SB Off Ramp	TCS	LOS		B		B		B		B					C		C	C	B
			Delay		14		14		17		17					23		24	23	18
			V/C		0.29				0.55							0.28		0.29		0.45
			Q		35				74							33		34		
	Hwy 404 NB Off Ramp/Driveway & Green Lane	TCS	LOS	B	B		B		B	A	B	C	C	B	C	C		C	C	C
			Delay	13	15		15		18	0	18	27	27	20	27	35		33	33	20
			V/C	0.04	0.35				0.36	0.00		0.65	0.66	0.03		0.10		0.01		0.50
			Q	5	47				52	0		70	71	0		3		0		
			Stor.	25	-				-	35		-	-	65		-	-	-		
			Avail.	20	-				-	35		-	-	65		-		-		

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

TABLE 4.6: BASE YEAR PM PEAK HOUR TRAFFIC OPERATION

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	
PM Peak Hour	Yonge Street & Queensville Sideroad	TWSC	LOS		A	>	A	A	A		A	C		>	C					
			Delay		0	>	0	8	0		0	22		>	22					
			V/C		0.28	>		0.04	0.4			0.34		>						
			Q		0	>		1	0			12		>						
			Stor.		-	>		25	-			-		>						
			Avail.		-	>		24	-			-		>						
	2nd Concession Road & Queensville Sideroad	TCS	LOS	A	A	>	A	A	A	>	A	B	C	B	B	B	B	>	B	B
			Delay	6	7	>	7	5	8	>	8	20	20	19	20	19	20	>	20	10
			V/C	0.28	0.41	>		0.11	0.59	>		0.14	0.27	0.06		0.01	0.21	>		0.52
			Q	13	40	>		7	65	>		9	19	11		1	18	>		
			Stor.	65	-	>		55	-	>		40	-	35		40	-	>		
			Avail.	52	-	>		48	-	>		31	-	24		39	-	>		
	Leslie Street & Queensville Sideroad	TCS	LOS	B	B	>	B	C	D	>	D	C	C	>	C	C	C	>	C	C
			Delay	18	12	>	15	22	39	>	37	25	30	>	29	24	27	>	26	27
			V/C	0.57	0.30	>		0.23	0.84	>		0.14	0.49	>		0.12	0.30	>		0.66
			Q	32	45	>		24	148	>		18	73	>		13	43	>		
			Stor.	25	-	>		30	-	>		35	-	>		25	-	>		
			Avail.	-7	-	>		6	-	>		17	-	>		12	-	>		
	Yonge Street & Doane Road	TWSC	LOS	A	A	>	A	B	A	>	B	A	A	>	A	A	A	>	A	
			Delay	0	10	>	10	11	9	>	11	7	0	>	0	8	0	>	1	
			V/C	0	0	>		0.1	0.02	>		0	0.12	>		0.01	0.06	>		
			Q	0	0	>		3	0	>		0	0	>		0	0	>		
			Stor.	20	-	>		35	-	>		25	-	>		35	-	>		
			Avail.	20	-	>		32	-	>		25	-	>		35	-	>		
	Silk Twist Drive & Doane Road	TWSC	LOS		A	>	A	<	A		A	A		>	A					
			Delay		0	>	0	<	3		3	9		>	9					
			V/C		0.04	>		<	0.04			0.04		>						
			Q		0	>		<	1			1		>						
	2nd Concession Road & Doane Road	TWSC	LOS	<	B	>	B	<	B	>	B	A	A	>	A	A	A	>	A	
			Delay	<	12	>	12	<	14	>	14	8	0	>	1	8	0	>	0	
			V/C	<	0.17	>		<	0.23	>		0.03	0.07	>		0	0.04	>		
			Q	<	5	>		<	7	>		1	0	>		0	0	>		
			Stor.	<	-	>		<	-	>		85	-	>		85	-	>		
			Avail.	<	-	>		<	-	>		84	-	>		85	-	>		
	Leslie Street & Doane Road	TWSC	LOS	<	C	>	C	<	C	>	C	<	A	>	A	<	A	>	A	
			Delay	<	19	>	19	<	15	>	15	<	1	>	1	<	0	>	0	
			V/C	<	0.22	>		<	0.1	>		<	0.04	>		<	0.01	>		
			Q	<	7	>		<	3	>		<	1	>		<	0	>		
	Yonge Street & Bradford Street/Thompson Drive	TCS	LOS	C	C	>	C	C	C	>	C	A	A	>	A	A	B	>	B	B
			Delay	28	25	>	26	25	25	>	25	5	5	>	5	9	11	>	11	12
			V/C	0.51	0.17	>		0.11	0.11	>		0.37	0.23	>		0.04	0.30	>		0.42
			Q	23	15	>		7	10	>		23	26	>		5	36	>		
			Stor.	40	-	>		30	-	>		50	-	>		55	-	>		
			Avail.	17	-	>		23	-	>		27	-	>		50	-	>		
	Yonge Street & Queen Street/Mt. Albert Road	TCS	LOS	C	C	>	C	C	C	>	C	<	B	B	B	<	A	>	A	B
			Delay	23	23	>	23	26	24	>	24	<	12	10	12	<	6	>	6	16
			V/C	0.09	0.07	>		0.47	0.22	>		<	0.32	0.09		<	0.24	>		0.35
			Q	6	9	>		27	20	>		<	38	9		<	21	>		
			Stor.	8	-	>		50	-	>		<	-	20		<	-	>		
			Avail.	2	-	>		23	-	>		<	-	11		<	-	>		
	Yonge Street & Holland Landing Road/Old Yonge Street	TWSC	LOS	F	C	>	F	<	A	>	A	B	A	A	A	A	A	A	A	
			Delay	377	20	>	130	<	0	>	0	11	0	0	0	0	0	0	0	
			V/C	0.31	0.04	>		<	0	>		0.02	0.93	0		0	0.68	0		
			Q	6	1	>		<	0	>		0	0	0		0	0	0		
			Stor.	50	-	>		<	-	>		55	-	20		35	-	35		
			Avail.	44	-	>		<	-	>		55	-	20		35	-	35		
	Yonge Street /Highway 11 & Morning Sideroad/Holland Landing Road	TCS	LOS	<	C	>	C	<	E	>	E	B	C	B	B	B	B	B	B	C
			Delay	<	30	>	30	<	56	>	56	12	21	16	20	18	16	11	16	23
			V/C	<	0.17	>		<	0.86	>		0.04	0.72	0.43		0.22	0.48	0.00		0.77
			Q	<	28	>		<	118	>		4	178	53		10	99	0		
			Stor.	<	-	>		<	-	>		85	-	60		120	-	80		
			Avail.	<	-	>		<	-	>		81	-	7		110	-	80		
	2nd Concession Road & Silk Twist Drive	TWSC	LOS	B		>	B					A	A		A		A	>	A	
			Delay	10		>	10					8	0		2		0	>	0	
			V/C	0.15		>						0.07	0.1				0.09	>		
			Q	4		>						2	0				0	>		
			Stor.	-		>						35	-				-	>		
			Avail.	-		>						33	-				-	>		
	2nd Concession Road	TCS	LOS	B	B	B	B	B	C	B	B	B	B	>	B	C	C	>	C	B
			Delay	16	17	15	16	16	21	15	19	16	16	>	16	23	23	>	23	18
			V/C	0.15	0.26	0.08		0.22	0.57	0.04		0.33	0.32	>		0.15	0.27	>		0.48
			Q	11	34	9		21	78	3		30	40	>		13	30	>		
			Stor.	100	-	25		90	-	20		-	-	>		60	-	>		
			Avail.	89	-	16		69	-	17		-	-	>		47	-	>		

TABLE 4.6: BASE YEAR PM PEAK HOUR TRAFFIC OPERATION (CONT'D)

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Overall
PM Peak Hour	Murrell Boulevard & Mt. Albert Road	TWSC	LOS		A	A	A	A	A		A	B		B	B					
			Delay		0	0	0	8	0		0	13		10	12					
			V/C		0.17	0.03		0.03	0.32			0.08		0.07						
			Q		0	0		1	0			2		2						
			Stor.		-	45		45	-			-		-						
			Avail.		-	45		44	-			-		-						
	Leslie Street & Mt. Albert Road/Farr Avenue	TCS	LOS	D	D	>	D	D	D	>	D	A	A	>	A	A	A	>	A	B
			Delay	46	44	>	44	38	39	>	39	6	2	>	4	4	5	>	5	16
			V/C	0.61	0.60	>		0.23	0.31	>		0.55	0.28	>		0.06	0.17	>		0.56
			Q	38	47	>		12	29	>		87	21	>		7	23	>		
			Stor.	40	-	>		15	-	>		30	-	>		20	-	>		
			Avail.	2	-	>		3	-	>		-57	-	>		13	-	>		
	Leslie Street & Mt. Albert Road	TCS	LOS	D	D	>	D	D	D	>	D	A	A	A	A	A	A	A	A	B
			Delay	40	40	>	40	43	40	>	41	4	8	4	7	4	3	3	4	13
			V/C	0.14	0.08	>		0.45	0.13	>		0.02	0.57	0.06		0.26	0.23	0.00		0.55
			Q	9	12	>		26	20	>		2	103	6		9	20	0		
			Stor.	-	-	>		30	-	>		40	-	10		25	-	25		
			Avail.	-	-	>		4	-	>		38	-	4		16	-	25		
	Woodbine Avenue & Mt. Albert Road	TCS	LOS	D	D	D	D	D	D	D	D	A	A	A	A	A	A	A	A	B
			Delay	36	40	36	38	46	40	36	42	5	5	6	5	8	8	8	8	19
			V/C	0.05	0.41	0.03		0.61	0.50	0.01		0.10	0.14	0.16		0.03	0.03	0.00		0.25
			Q	6	36	4		37	42	0		12	20	8		6	6	0		
			Stor.	90	-	45		110	-	50		35	-	30		50	-	50		
			Avail.	84	-	41		73	-	50		23	-	22		44	-	50		
	Yonge Street & Green Lane	TCS	LOS	D	E	D	D	D	E	C	D	C	D	D	D	E	C	C	D	D
			Delay	49	55	41	52	55	57	35	50	31	48	48	47	70	31	27	44	48
			V/C	0.81	0.79	0.06		0.88	0.83	0.60		0.22	0.72	0.62		0.84	0.44	0.17		0.82
			Q	78	118	5		101	131	105		20	138	110		84	97	28		
			Stor.	30	-	30		170	-	170		90	-	35		90	-	45		
			Avail.	-48	-	25		69	-	65		70	-	-75		6	-	17		
	2nd Concession Road & Green Lane	TCS	LOS	D	D	C	D	D	D	C	D	D	D	>	D	E	E	E	E	D
			Delay	45	37	21	37	44	39	26	39	47	50	>	48	56	67	55	59	41
			V/C	0.72	0.83	0.14		0.75	0.77	0.08		0.68	0.44	>		0.61	0.68	0.11		0.79
			Q	86	276	25		61	199	13		76	50	>		44	66	21		
			Stor.	100	-	40		70	-	30		100	-	>		80	-	-		
			Avail.	14	-	15		9	-	17		24	-	>		36	-	-		
	Leslie Street & Green Lane	TCS	LOS	C	C	C	C	B	C	C	C	F	E	D	F	E	E	D	E	D
			Delay	23	28	23	26	18	27	21	26	188	57	46	104	64	60	53	60	48
			V/C	0.43	0.64	0.36		0.33	0.79	0.23		1.27	0.78	0.27		0.73	0.64	0.06		0.95
			Q	19	166	62		16	205	33		216	102	36		40	58	4		
			Stor.	30	-	60		80	-	35		25	-	30		50	-	30		
			Avail.	11	-	-2		64	-	2		-191	-	-6		10	-	26		
	Colonel Wayling Boulevard & Mt. Albert Road	TWSC	LOS		A	>	A	<	A		A	A		>	A					
			Delay		0	>	0	<	0		0	9		>	9					
			V/C		0.1	>		<	0			0		>						
			Q		0.0	>		<	0.0			0.0		>						
	Harry Walker Parkway & Green Lane	TCS	LOS		C	B	C	C	C		C	D		D	D					C
			Delay		27	20	27	28	26		26	38		35	37					28
			V/C		0.84	0.07		0.52	0.71			0.50		0.38						0.70
			Q		132	12		22	175			104		66						
			Stor.		-	40		75	-			-		-						
			Avail.		-	28		53	-			-		-						
	Hwy 404 SB On/Off Ramp/Driveway & Queensville Sideroad	TWSC	LOS	A	A	A	A	A	A	>	A	<	C	A	C	C	B	>	B	
			Delay	8	0	0	0	8	0	>	1	<	18	0	18	15	11	>	13	
			V/C	0	0.07	0.09		0.03	0.17	>		<	0.3	0		0.01	0.02	>		
			Q	0	0	0		1	0	>		<	10	0		0	0	>		
			Stor.	-	-	45		200	-	>		<	-	55		-	-	>		
			Avail.	-	-	45		199	-	>		<	-	55		-	-	>		
	Hwy 404 NB On/Off Ramp & Queensville Sideroad	TCS	LOS		A	A	A	A	A		A	B		B	B					B
			Delay		8	8	8	0	8		8	16		14	16					12
			V/C		0.08	0.08		0.00	0.09			0.46		0.05						0.25
			Q		6	7		0	7			24		8						
			Stor.		-	100		90	-			-		70						
			Avail.		-	93		90	-			-		62						
	Green Lane & Hwy 404 SB Off Ramp	TCS	LOS		B		B		C		C					C		C	C	C
			Delay		16		16		35		35					22		23	23	28
			V/C		0.52				0.95							0.22		0.24		0.67
			Q		74				199							29		32		
	Hwy 404 NB Off Ramp/Driveway & Green Lane	TCS	LOS	C	D		D		D	C	D	D	D	B	C	D		D	D	D
			Delay	28	39		38		36	31	36	37	36	19	35	53		53	53	36
			V/C	0.04	0.74				0.48	0.00		0.83	0.82	0.07		0.05		0.02		0.78
			Q	5	108				68	0		242	236	12		4		0		
			Stor.	25	-				-	35		-	-	65		-	-	-		
			Avail.	20	-				-	35		-	-	53		-		-		

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 Needs and Opportunities

The draft land use plan for the Complete Communities Secondary Plan area is expected to bring nearly 50,000 people and 7,000 jobs to East Gwillimbury over the next 25 years. The transportation system in and around the Secondary Plan area will need significant changes to accommodate the resulting increase in travel demand. However, it also brings the opportunity to change and improve how people travel to, from and within the study area.

5.1 Roads

The existing road network currently has only isolated issues with traffic operations or performance. The increase in population and employment will generate more car trips, even with a significant mode shift away from single-occupancy vehicle use. This will create a need for additional capacity in the road network. The extra capacity could be provided through new roads (particularly in the areas to be developed), adding lanes to existing roads, or changing the configuration of intersections.

The changes required for capacity reason also bring opportunities to improve road safety. For example, changing lane widths, reducing corner radii, adding landscaping, installing pedestrian crossings, or adopting pedestrian-friendly signal phasing are all typically easiest to do as part of a larger project to add capacity. This is also the easiest time to add pedestrian and cycling infrastructure alongside road, or transit priority measures of any kind. Supporting non-car modes in this way will help shift travel patterns away from car use.

5.2 Transit

The expected increase in population and jobs will both result in higher demand for transit. The proposed densities for new development are higher than in existing communities and will also create a contiguous urban area – both of which help transit by having more people per kilometre of route. The changes to land use will both require and support significantly higher transit service levels than currently exist.

Enhancements to the pedestrian environment (discussed in the next section) will also benefit transit, as all local transit users are also pedestrians. Better local transit will also benefit residents and workers in the existing urban areas.

Metrolinx is currently working to upgrade the Barrie GO Line service to 15-minute, two-way, all-day service. While the timeline of this improvement is unknown, the upgrade is expected to provide more

frequent and expanded GO service for residents and employees within the Secondary Plan area. The upgraded GO Train service will further improve opportunities for transit use for travel beyond the study area.

5.3 Active Transportation

New urban areas have the opportunity to provide high-quality pedestrian and cycling facilities from day one. This results in new residents and workers establishing travel habits using active transportation from when they move to the area.

High-quality cycling facilities will also encourage people living in existing areas to switch to cycling. However, this will partly depend on the implementation of cycling facilities within existing urban areas. The

The proposed land use pattern will result in more people being within walking distance of shops, schools, and other amenities. This will help reduce the proportion of trips being made by cars. It will also provide health benefits to people living in those communities.

5.4 Strategic Aims

Chapter 2 described the policies affecting the study area from various levels of government. There is a recurring theme of changing travel habits away from single-occupancy vehicles and towards sustainable modes such as transit and active transportation. They also have wider aims of creating dense, livable, mixed-used communities that work for all people.

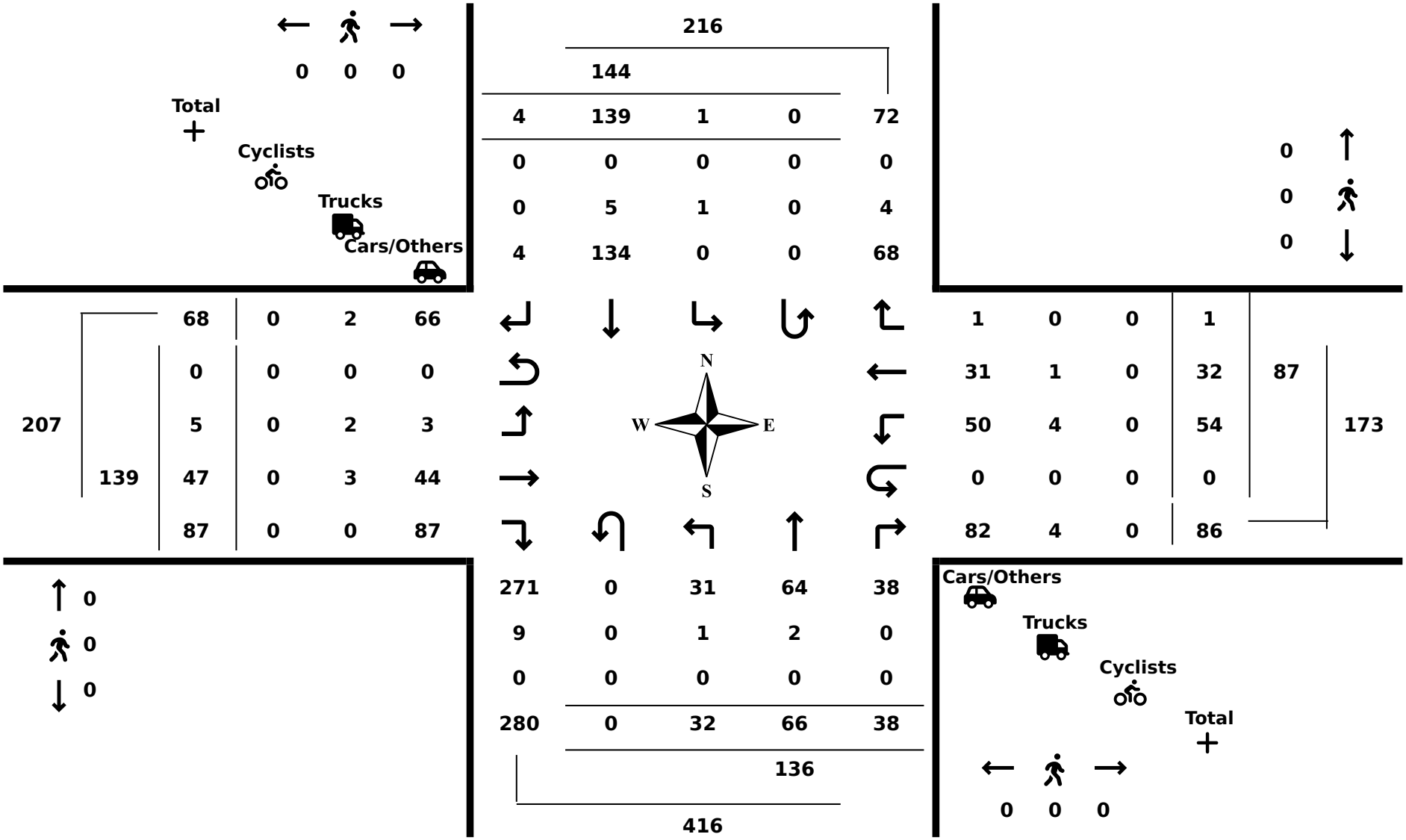
The development Complete Communities Secondary Plan area has the opportunity to advance all these strategic aims through its land use pattern, densities, and transportation system.

Appendix A

Turning Movement Counts

Turning Movement Count Peak Hour Diagram

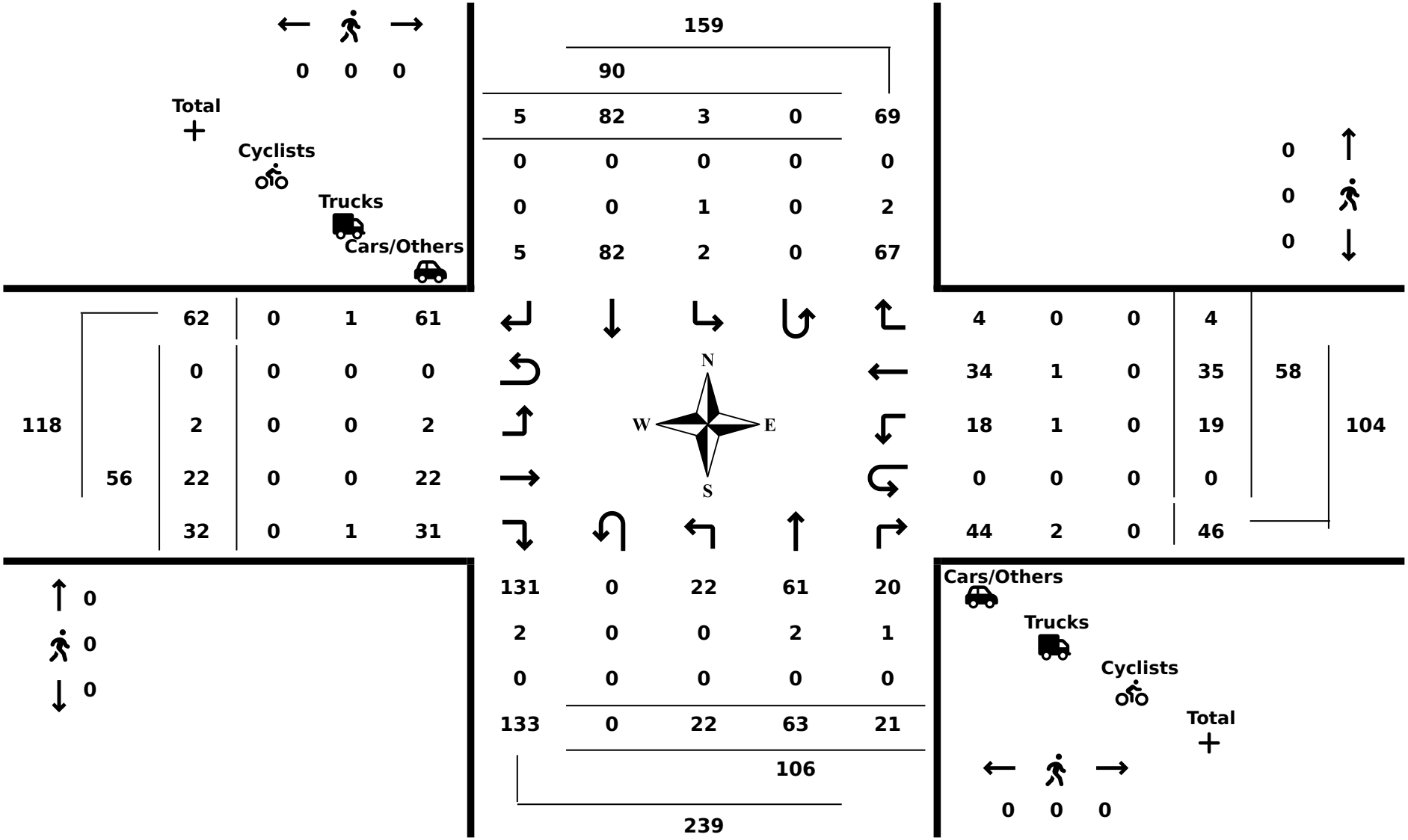
Location:	2nd Concession Road @ Doane Road	**Municipality:**	
Jurisdiction:		**Start Date:** 03/09/2023 08:00:00	**End Date:** 03/09/2023 09:00:00



© York Region

TES www.tes.ca

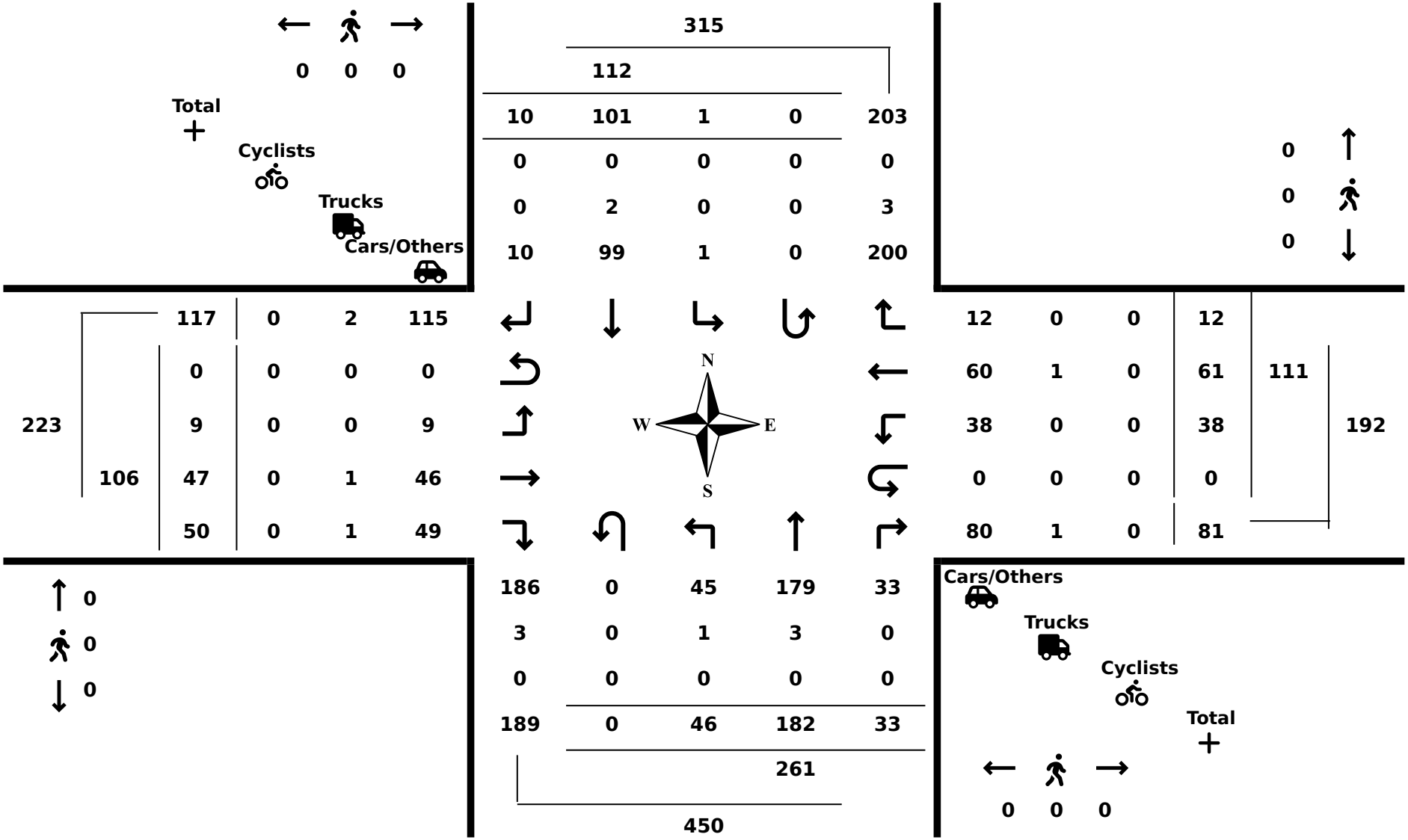
Location:	2nd Concession Road @ Doane Road	**Municipality:**	
Jurisdiction:		**Start Date:** 03/09/2023 11:30:00	**End Date:** 03/09/2023 12:30:00



© York Region

TES www.tes.ca

Location:	2nd Concession Road @ Doane Road	**Municipality:**	
Jurisdiction:	**Start Date:** 03/09/2023 16:15:00	**End Date:**	03/09/2023 17:15:00



© York Region

TES www.tes.ca
Rev 74-5.1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #22-004 - Town of East Gwillimbury

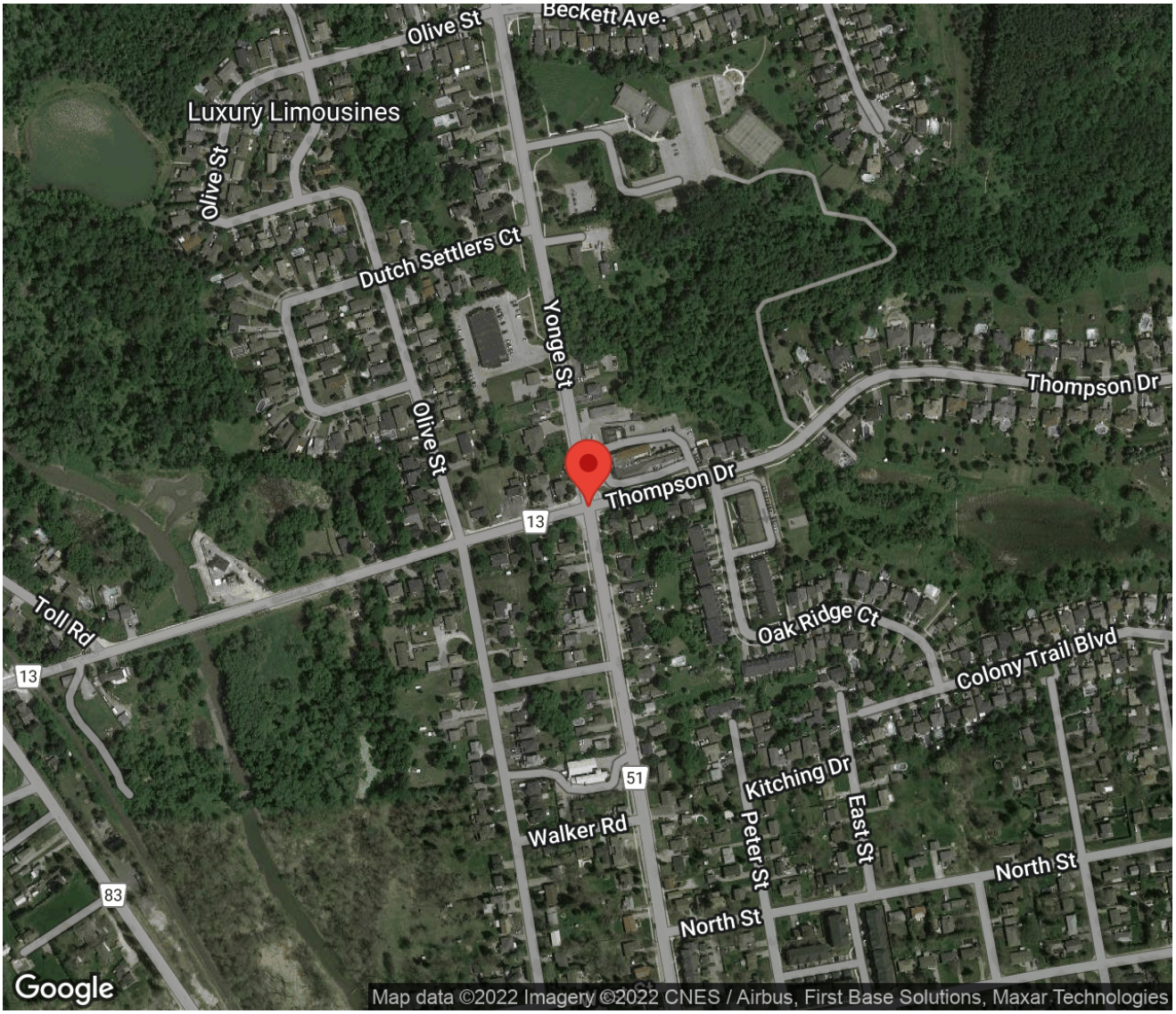
Intersection Count Report

Intersection:	Yonge St & Bradford St-Thompson Dr
Municipality:	East Gwillimbury
Count Date:	Thursday, Oct 13, 2022
Site Code:	2200400004
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-09:00, 15:00-18:00
Weather:	Clear
Comments:	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Map

Intersection:	Yonge St & Bradford St-Thompson Dr
Site Code:	2200400004
Municipality:	East Gwillimbury
Count Date:	Oct 13, 2022



Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Yonge St & Bradford St-Thompson Dr
Site Code:	2200400004
Municipality:	East Gwillimbury
Count Date:	Oct 13, 2022

Yonge St - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	15	149	44	0	208	1	81	52	7	0	140	0	348
08:00 - 09:00	5	194	73	0	272	0	100	94	10	0	204	2	476
BREAK													
15:00 - 16:00	15	134	44	0	193	5	176	194	16	0	386	3	579
16:00 - 17:00	19	151	83	0	253	2	235	213	24	0	472	3	725
17:00 - 18:00	17	139	83	0	239	3	204	227	15	0	446	2	685
GRAND TOTAL	**71**	**767**	**327**	**0**	**1165**	**11**	**796**	**780**	**72**	**0**	**1648**	**10**	**2813**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Yonge St & Bradford St-Thompson Dr
Site Code:	2200400004
Municipality:	East Gwillimbury
Count Date:	Oct 13, 2022

Thompson Dr - Traffic Summary

	East Approach Totals						West Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	11	8	6	0	25	4	46	5	158	0	209	2	234
08:00 - 09:00	19	17	9	0	45	2	61	22	184	0	267	1	312
BREAK													
15:00 - 16:00	4	19	12	0	35	7	64	10	88	0	162	9	197
16:00 - 17:00	12	16	22	0	50	1	72	13	103	0	188	4	238
17:00 - 18:00	10	22	16	0	48	3	75	21	114	0	210	1	258
GRAND TOTAL	**56**	**82**	**65**	**0**	**203**	**17**	**318**	**71**	**647**	**0**	**1036**	**17**	**1239**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Yonge St & Bradford St-Thompson Dr
Site Code: 2200400004
Municipality: East Gwillimbury
Count Date: Oct 13, 2022

North Approach - Yonge St

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	3	22	5	0	30	1	0	0	0	1	0	0	0	0	0	0
07:15	2	32	9	0	43	2	1	0	0	3	0	0	0	0	0	0
07:30	3	45	16	0	64	0	1	1	0	2	0	0	0	0	0	1
07:45	2	45	12	0	59	1	3	1	0	5	1	0	0	0	1	0
08:00	1	57	20	0	78	0	0	0	0	0	0	0	0	0	0	0
08:15	1	53	23	0	77	0	0	0	0	0	0	0	0	0	0	0
08:30	0	29	18	0	47	0	1	1	0	2	0	0	0	0	0	0
08:45	3	53	11	0	67	0	1	0	0	1	0	0	0	0	0	0
SUBTOTAL	15	336	114	0	465	4	7	3	0	14	1	0	0	0	1	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Yonge St & Bradford St-Thompson Dr
Site Code: 2200400004
Municipality: East Gwillimbury
Count Date: Oct 13, 2022

North Approach - Yonge St

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
15:00	6	37	10	0	53	0	0	1	0	1	0	0	0	0	0	2
15:15	4	33	7	0	44	1	1	0	0	2	0	0	0	0	0	0
15:30	1	29	14	0	44	0	0	1	0	1	0	0	0	0	0	2
15:45	3	33	11	0	47	0	1	0	0	1	0	0	0	0	0	1
16:00	0	30	19	0	49	1	2	1	0	4	0	0	0	0	0	0
16:15	5	50	21	0	76	0	1	1	0	2	0	0	0	0	0	1
16:30	6	37	24	0	67	0	1	0	0	1	0	2	0	0	2	1
16:45	7	28	17	0	52	0	0	0	0	0	0	0	0	0	0	0
17:00	1	35	29	0	65	0	0	1	0	1	0	0	0	0	0	1
17:15	6	31	18	0	55	0	0	2	0	2	0	0	0	0	0	0
17:30	5	35	14	0	54	0	0	0	0	0	0	0	1	0	1	2
17:45	5	38	17	0	60	0	0	1	0	1	0	0	0	0	0	0
SUBTOTAL	49	416	201	0	666	2	6	8	0	16	0	2	1	0	3	10
GRAND TOTAL	64	752	315	0	1131	6	13	11	0	30	1	2	1	0	4	11

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Yonge St & Bradford St-Thompson Dr
Site Code: 2200400004
Municipality: East Gwillimbury
Count Date: Oct 13, 2022

South Approach - Yonge St

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	15	10	0	0	25	1	2	0	0	3	0	0	0	0	0	0
07:15	17	7	1	0	25	0	0	1	0	1	0	0	0	0	0	0
07:30	20	14	3	0	37	1	0	0	0	1	0	0	0	0	0	0
07:45	23	19	1	0	43	4	0	1	0	5	0	0	0	0	0	0
08:00	22	22	2	0	46	0	0	0	0	0	0	0	0	0	0	0
08:15	26	21	2	0	49	0	0	0	0	0	0	0	0	0	0	0
08:30	17	23	3	0	43	1	0	0	0	1	0	0	0	0	0	0
08:45	32	27	2	0	61	2	1	1	0	4	0	0	0	0	0	2
SUBTOTAL	172	143	14	0	329	9	3	3	0	15	0	0	0	0	0	2

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Yonge St & Bradford St-Thompson Dr
Site Code: 2200400004
Municipality: East Gwillimbury
Count Date: Oct 13, 2022

South Approach - Yonge St

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
15:00	36	55	3	0	94	3	1	0	0	4	0	0	0	0	0	1
15:15	37	37	3	0	77	3	3	0	0	6	0	0	0	0	0	0
15:30	52	53	4	0	109	2	1	1	0	4	0	0	0	0	0	0
15:45	40	44	5	0	89	3	0	0	0	3	0	0	0	0	0	2
16:00	41	47	7	0	95	1	0	0	0	1	0	0	0	0	0	0
16:15	69	44	7	0	120	2	1	0	0	3	0	1	0	0	1	2
16:30	58	71	6	0	135	1	1	0	0	2	0	0	0	0	0	1
16:45	62	47	4	0	113	1	0	0	0	1	0	1	0	0	1	0
17:00	48	65	2	0	115	1	2	0	0	3	0	0	0	0	0	0
17:15	62	56	3	0	121	3	1	0	0	4	0	0	0	0	0	0
17:30	41	44	7	0	92	4	0	0	0	4	0	0	0	0	0	2
17:45	44	59	3	0	106	1	0	0	0	1	0	0	0	0	0	0
SUBTOTAL	590	622	54	0	1266	25	10	1	0	36	0	2	0	0	2	8
GRAND TOTAL	**762**	**765**	**68**	**0**	**1595**	**34**	**13**	**4**	**0**	**51**	**0**	**2**	**0**	**0**	**2**	**10**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Yonge St & Bradford St-Thompson Dr
Site Code: 2200400004
Municipality: East Gwillimbury
Count Date: Oct 13, 2022

East Approach - Thompson Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	1	4	2	0	7	0	1	0	0	1	0	0	0	0	0	0
07:15	3	1	1	0	5	1	0	0	0	1	0	0	0	0	0	0
07:30	5	1	0	0	6	0	0	0	0	0	0	0	0	0	0	0
07:45	1	1	2	0	4	0	0	1	0	1	0	0	0	0	0	4
08:00	11	1	1	0	13	0	0	1	0	1	0	0	0	0	0	1
08:15	0	5	3	0	8	0	0	0	0	0	0	0	0	0	0	0
08:30	4	7	1	0	12	0	0	0	0	0	0	0	0	0	0	0
08:45	4	4	3	0	11	0	0	0	0	0	0	0	0	0	0	1
SUBTOTAL	29	24	13	0	66	1	1	2	0	4	0	0	0	0	0	6

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Yonge St & Bradford St-Thompson Dr
Site Code: 2200400004
Municipality: East Gwillimbury
Count Date: Oct 13, 2022

East Approach - Thompson Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
15:00	1	6	4	0	11	1	0	0	0	1	0	0	0	0	0	3
15:15	0	5	3	0	8	0	0	1	0	1	0	0	0	0	0	3
15:30	0	2	1	0	3	0	1	0	0	1	0	0	0	0	0	0
15:45	1	4	3	0	8	1	1	0	0	2	0	0	0	0	0	1
16:00	1	4	2	0	7	0	1	1	0	2	0	0	0	0	0	1
16:15	3	3	8	0	14	1	0	0	0	1	0	0	1	0	1	0
16:30	3	3	1	0	7	0	0	0	0	0	0	0	0	0	0	0
16:45	4	5	9	0	18	0	0	0	0	0	0	0	0	0	0	0
17:00	4	8	3	0	15	0	0	0	0	0	0	0	0	0	0	0
17:15	1	5	4	0	10	0	1	0	0	1	0	0	0	0	0	1
17:30	3	4	5	0	12	0	0	0	0	0	0	0	0	0	0	0
17:45	2	4	4	0	10	0	0	0	0	0	0	0	0	0	0	2
SUBTOTAL	23	53	47	0	123	3	4	2	0	9	0	0	1	0	1	11
GRAND TOTAL	**52**	**77**	**60**	**0**	**189**	**4**	**5**	**4**	**0**	**13**	**0**	**0**	**1**	**0**	**1**	**17**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Yonge St & Bradford St-Thompson Dr
Site Code: 2200400004
Municipality: East Gwillimbury
Count Date: Oct 13, 2022

West Approach - Bradford St

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	14	3	27	0	44	1	0	2	0	3	0	0	0	0	0	0
07:15	7	0	34	0	41	2	0	4	0	6	0	0	0	0	0	1
07:30	11	2	43	0	56	1	0	3	0	4	0	0	0	0	0	1
07:45	10	0	44	0	54	0	0	1	0	1	0	0	0	0	0	0
08:00	15	3	35	0	53	0	0	1	0	1	0	0	0	0	0	0
08:15	11	6	46	0	63	0	0	0	0	0	0	0	0	0	0	1
08:30	20	6	49	0	75	1	0	2	0	3	0	0	0	0	0	0
08:45	13	5	50	0	68	1	2	1	0	4	0	0	0	0	0	0
SUBTOTAL	101	25	328	0	454	6	2	14	0	22	0	0	0	0	0	3

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Yonge St & Bradford St-Thompson Dr
Site Code: 2200400004
Municipality: East Gwillimbury
Count Date: Oct 13, 2022

West Approach - Bradford St

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
15:00	16	1	22	0	39	2	0	2	0	4	0	0	0	0	0	2
15:15	18	2	21	0	41	0	0	2	0	2	0	0	0	0	0	2
15:30	13	6	24	0	43	0	0	3	0	3	0	0	0	0	0	4
15:45	13	1	13	0	27	2	0	1	0	3	0	0	0	0	0	1
16:00	15	2	20	0	37	0	0	0	0	0	0	0	0	0	0	0
16:15	20	3	28	0	51	1	0	2	0	3	0	0	0	0	0	1
16:30	16	3	22	0	41	1	1	4	0	6	0	0	0	0	0	2
16:45	18	4	27	0	49	1	0	0	0	1	0	0	0	0	0	1
17:00	23	7	16	0	46	0	0	1	0	1	0	0	0	0	0	0
17:15	15	5	31	0	51	0	0	2	0	2	1	0	0	0	1	0
17:30	17	5	26	0	48	0	0	2	0	2	0	0	0	0	0	1
17:45	19	4	35	0	58	0	0	1	0	1	0	0	0	0	0	0
SUBTOTAL	203	43	285	0	531	7	1	20	0	28	1	0	0	0	1	14
GRAND TOTAL	304	68	613	0	985	13	3	34	0	50	1	0	0	0	1	17

Peak Hour Diagram

Specified Period
From: 07:00:00
To: 09:00:00

One Hour Peak
From: 08:00:00
To: 09:00:00

Intersection: Yonge St & Bradford St-Thompson Dr
Site Code: 2200400004
Count Date: Oct 13, 2022

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Yonge St runs N/S

North Approach

	Out	In	Total
Cars	269	160	429
Trucks	3	4	7
Bicycles	0	0	0
	272	**164**	**436**

Yonge St

Bicycles	0	0	0	0
Trucks	1	2	0	0
Cars	72	192	5	0
Totals	**73**	**194**	**5**	**0**

East Approach

	Out	In	Total
Cars	44	34	78
Trucks	1	3	4
Bicycles	0	0	0
	45	**37**	**82**

Peds: 0

Bradford St

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	
0	2	59	**61**	
0	2	20	**22**	
0	4	180	**184**	

Peds: 1

Peds: 2

Thompson Dr

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	9	8	1	0
	17	17	0	0
	19	19	0	0

Peds: 2

West Approach

	Out	In	Total
Cars	259	186	445
Trucks	8	4	12
Bicycles	0	0	0
	267	**190**	**457**

Totals	**100**	**94**	**10**	**0**
Cars	97	93	9	0
Trucks	3	1	1	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	199	391	590
Trucks	5	6	11
Bicycles	0	0	0
	204	**397**	**601**

Yonge St

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Yonge St & Bradford St-Thompson Dr
Site Code: 2200400004
Count Date: Oct 13, 2022
Period: 07:00 - 09:00

Peak Hour Data (08:00 - 09:00)

Start Time	North Approach Yonge St						South Approach Yonge St						East Approach Thompson Dr						West Approach Bradford St						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
08:00	1	57	20	0	0	78	22	22	2	0	0	46	11	1	2	0	1	14	15	3	36	0	0	54	192
08:15	1	53	23	0	0	77	26	21	2	0	0	49	0	5	3	0	0	8	11	6	46	0	1	63	197
08:30	0	30	19	0	0	49	18	23	3	0	0	44	4	7	1	0	0	12	21	6	51	0	0	78	183
08:45	3	54	11	0	0	68	34	28	3	0	2	65	4	4	3	0	1	11	14	7	51	0	0	72	216
Grand Total	**5**	**194**	**73**	**0**	**0**	**272**	**100**	**94**	**10**	**0**	**2**	**204**	**19**	**17**	**9**	**0**	**2**	**45**	**61**	**22**	**184**	**0**	**1**	**267**	**788**
Approach %	1.8	71.3	26.8	0		-	49	46.1	4.9	0		-	42.2	37.8	20	0		-	22.8	8.2	68.9	0		-	
Totals %	0.6	24.6	9.3	0		34.5	12.7	11.9	1.3	0		25.9	2.4	2.2	1.1	0		5.7	7.7	2.8	23.4	0		33.9	
PHF	**0.42**	**0.85**	**0.79**	**0**		**0.87**	**0.74**	**0.84**	**0.83**	**0**		**0.78**	**0.43**	**0.61**	**0.75**	**0**		**0.8**	**0.73**	**0.79**	**0.9**	**0**		**0.86**	**0.91**
Cars	5	192	72	0		269	97	93	9	0		199	19	17	8	0		44	59	20	180	0		259	771
% Cars	100	99	98.6	0		98.9	97	98.9	90	0		97.5	100	100	88.9	0		97.8	96.7	90.9	97.8	0		97	97.8
Trucks	0	2	1	0		3	3	1	1	0		5	0	0	1	0		1	2	2	4	0		8	17
% Trucks	0	1	1.4	0		1.1	3	1.1	10	0		2.5	0	0	11.1	0		2.2	3.3	9.1	2.2	0		3	2.2
Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
% Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
Peds					0	-					2	-					2	-					1	-	5
% Peds					0	-					40	-					40	-					20	-	

Peak Hour Diagram

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

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

Intersection: Yonge St & Bradford St-Thompson Dr
Site Code: 2200400004
Count Date: Oct 13, 2022

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Yonge St runs N/S

North Approach

	Out	In	Total
Cars	260	325	585
Trucks	4	7	11
Bicycles	2	3	5
	266	**335**	**601**

Yonge St

Bicycles	0	2	0	0
Trucks	2	2	0	0
Cars	91	150	19	0
Totals	**93**	**154**	**19**	**0**

Peds: 3

East Approach

	Out	In	Total
Cars	54	55	109
Trucks	1	1	2
Bicycles	1	0	1
	56	**56**	**112**

Bradford St

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	3	77	**80**
0	1	17	**18**
0	7	93	**100**

Peds: 4

Peds: 0

Thompson Dr

Totals	Cars	Trucks	Bicycles
0	0	0	0
22	21	0	1
19	19	0	0
15	14	1	0

Peds: 3

West Approach

	Out	In	Total
Cars	187	347	534
Trucks	11	7	18
Bicycles	0	0	0
	198	**354**	**552**

Totals	**242**	**233**	**19**	**0**
Cars	237	227	19	0
Trucks	5	4	0	0
Bicycles	0	2	0	0

Yonge St

South Approach

	Out	In	Total
Cars	483	257	740
Trucks	9	10	19
Bicycles	2	2	4
	494	**269**	**763**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Yonge St & Bradford St-Thompson Dr
Site Code: 2200400004
Count Date: Oct 13, 2022
Period: 15:00 - 18:00

Peak Hour Data (16:15 - 17:15)

Start Time	North Approach Yonge St						South Approach Yonge St						East Approach Thompson Dr						West Approach Bradford St						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:15	5	51	22	0	1	78	71	46	7	0	2	124	4	3	9	0	0	16	21	3	30	0	1	54	272
16:30	6	40	24	0	1	70	59	72	6	0	1	137	3	3	1	0	0	7	17	4	26	0	2	47	261
16:45	7	28	17	0	0	52	63	48	4	0	0	115	4	5	9	0	0	18	19	4	27	0	1	50	235
17:00	1	35	30	0	1	66	49	67	2	0	0	118	4	8	3	0	0	15	23	7	17	0	0	47	246
Grand Total	**19**	**154**	**93**	**0**	**3**	**266**	**242**	**233**	**19**	**0**	**3**	**494**	**15**	**19**	**22**	**0**	**0**	**56**	**80**	**18**	**100**	**0**	**4**	**198**	**1014**
Approach %	7.1	57.9	35	0		-	49	47.2	3.8	0		-	26.8	33.9	39.3	0		-	40.4	9.1	50.5	0		-	
Totals %	1.9	15.2	9.2	0		26.2	23.9	23	1.9	0		48.7	1.5	1.9	2.2	0		5.5	7.9	1.8	9.9	0		19.5	
PHF	**0.68**	**0.75**	**0.78**	**0**		**0.85**	**0.85**	**0.81**	**0.68**	**0**		**0.9**	**0.94**	**0.59**	**0.61**	**0**		**0.78**	**0.87**	**0.64**	**0.83**	**0**		**0.92**	**0.93**
Cars	19	150	91	0		260	237	227	19	0		483	14	19	21	0		54	77	17	93	0		187	984
% Cars	100	97.4	97.8	0		97.7	97.9	97.4	100	0		97.8	93.3	100	95.5	0		96.4	96.3	94.4	93	0		94.4	97
Trucks	0	2	2	0		4	5	4	0	0		9	1	0	0	0		1	3	1	7	0		11	25
% Trucks	0	1.3	2.2	0		1.5	2.1	1.7	0	0		1.8	6.7	0	0	0		1.8	3.8	5.6	7	0		5.6	2.5
Bicycles	0	2	0	0		2	0	2	0	0		2	0	0	1	0		1	0	0	0	0		0	5
% Bicycles	0	1.3	0	0		0.8	0	0.9	0	0		0.4	0	0	4.5	0		1.8	0	0	0	0		0	0.5
Peds					3	-					3	-					0	-					4	-	10
% Peds					30	-					30	-					0	-					40	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #22-004 - Town of East Gwillimbury

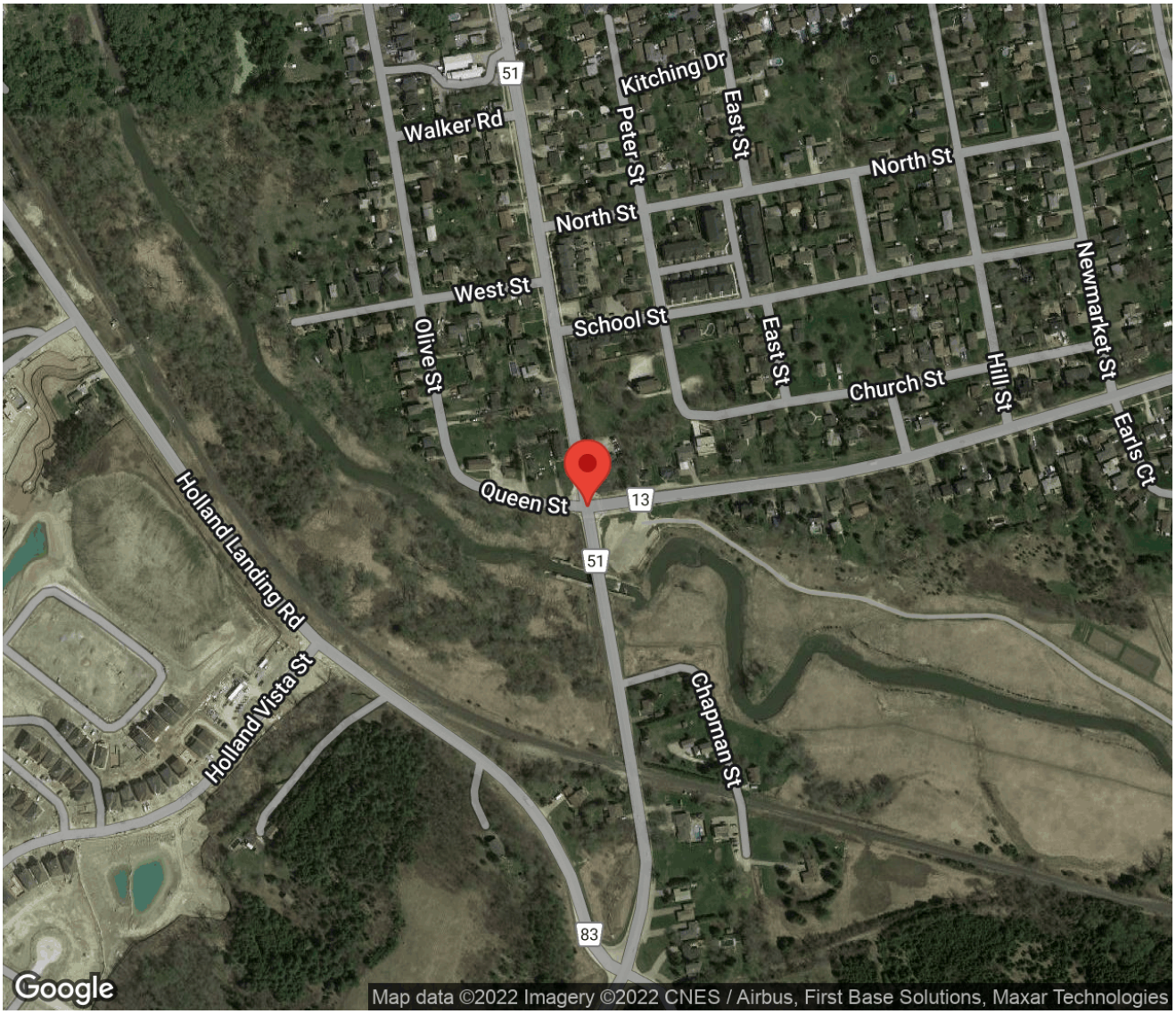
Intersection Count Report

Intersection:	Yonge St & Mount Albert Rd-Olive St
Municipality:	East Gwillimbury
Count Date:	Thursday, Oct 13, 2022
Site Code:	2200400005
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-09:00, 15:00-18:00
Weather:	Clear
Comments:	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Map

Intersection:	Yonge St & Mount Albert Rd-Olive St
Site Code:	2200400005
Municipality:	East Gwillimbury
Count Date:	Oct 13, 2022



Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Yonge St & Mount Albert Rd-Olive St
Site Code:	2200400005
Municipality:	East Gwillimbury
Count Date:	Oct 13, 2022

Yonge St - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	189	140	0	0	329	0	1	48	77	0	126	0	455
08:00 - 09:00	178	189	1	0	368	1	5	95	138	0	238	0	606
BREAK													
15:00 - 16:00	60	24	5	0	89	0	9	77	51	0	137	0	226
16:00 - 17:00	90	52	7	0	149	0	13	162	85	0	260	0	409
17:00 - 18:00	82	103	5	0	190	0	8	183	103	0	294	0	484
GRAND TOTAL	**599**	**508**	**18**	**0**	**1125**	**1**	**36**	**565**	**454**	**0**	**1055**	**0**	**2180**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Yonge St & Mount Albert Rd-Olive St
Site Code:	2200400005
Municipality:	East Gwillimbury
Count Date:	Oct 13, 2022

Mount Albert Rd - Traffic Summary

	East Approach Totals						West Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	96	2	87	0	185	6	0	4	7	0	11	0	196
08:00 - 09:00	83	4	84	0	171	3	0	16	9	0	25	0	196
BREAK													
15:00 - 16:00	34	15	88	0	137	10	5	11	7	0	23	0	160
16:00 - 17:00	73	22	164	0	259	11	9	15	11	0	35	0	294
17:00 - 18:00	123	16	166	0	305	13	10	13	16	0	39	0	344
GRAND TOTAL	**409**	**59**	**589**	**0**	**1057**	**43**	**24**	**59**	**50**	**0**	**133**	**0**	**1190**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Yonge St & Mount Albert Rd-Olive St
Site Code: 2200400005
Municipality: East Gwillimbury
Count Date: Oct 13, 2022

North Approach - Yonge St

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	29	27	0	0	56	2	0	0	0	2	0	0	0	0	0	0
07:15	40	31	0	0	71	2	1	0	0	3	0	0	0	0	0	0
07:30	53	40	0	0	93	5	2	0	0	7	0	0	0	0	0	0
07:45	55	38	0	0	93	3	1	0	0	4	0	0	0	0	0	0
08:00	39	56	0	0	95	1	0	0	0	1	0	0	0	0	0	0
08:15	50	52	0	0	102	2	1	0	0	3	0	0	0	0	0	0
08:30	37	32	0	0	69	6	0	0	0	6	0	0	0	0	0	1
08:45	40	46	1	0	87	3	2	0	0	5	0	0	0	0	0	0
SUBTOTAL	343	322	1	0	666	24	7	0	0	31	0	0	0	0	0	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Yonge St & Mount Albert Rd-Olive St
Site Code: 2200400005
Municipality: East Gwillimbury
Count Date: Oct 13, 2022

North Approach - Yonge St

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
15:00	12	6	1	0	19	1	0	0	0	1	0	0	0	0	0	0
15:15	11	5	1	0	17	0	0	0	0	0	0	0	0	0	0	0
15:30	16	4	1	0	21	1	2	0	0	3	0	0	0	0	0	0
15:45	17	7	2	0	26	2	0	0	0	2	0	0	0	0	0	0
16:00	19	8	2	0	29	1	0	0	0	1	0	0	0	0	0	0
16:15	16	7	2	0	25	2	2	0	0	4	2	1	0	0	3	0
16:30	19	13	1	0	33	2	1	0	0	3	0	0	0	0	0	0
16:45	28	18	2	0	48	1	0	0	0	1	0	2	0	0	2	0
17:00	28	22	1	0	51	1	3	0	0	4	0	2	0	0	2	0
17:15	22	19	1	0	42	1	2	0	0	3	0	0	0	0	0	0
17:30	16	28	1	0	45	1	2	0	0	3	0	0	0	0	0	0
17:45	13	22	2	0	37	0	1	0	0	1	0	2	0	0	2	0
SUBTOTAL	217	159	17	0	393	13	13	0	0	26	2	7	0	0	9	0
GRAND TOTAL	**560**	**481**	**18**	**0**	**1059**	**37**	**20**	**0**	**0**	**57**	**2**	**7**	**0**	**0**	**9**	**1**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Yonge St & Mount Albert Rd-Olive St
Site Code: 2200400005
Municipality: East Gwillimbury
Count Date: Oct 13, 2022

South Approach - Yonge St

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	1	7	10	0	18	0	1	1	0	2	0	0	0	0	0	0
07:15	0	6	14	0	20	0	1	1	0	2	0	0	0	0	0	0
07:30	0	12	24	0	36	0	1	0	0	1	0	0	0	0	0	0
07:45	0	20	25	0	45	0	0	2	0	2	0	0	0	0	0	0
08:00	3	20	23	0	46	0	1	0	0	1	0	0	0	0	0	0
08:15	1	19	30	0	50	0	2	0	0	2	0	0	0	0	0	0
08:30	0	26	42	0	68	0	0	0	0	0	0	0	0	0	0	0
08:45	1	24	40	0	65	0	3	3	0	6	0	0	0	0	0	0
SUBTOTAL	6	134	208	0	348	0	9	7	0	16	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Yonge St & Mount Albert Rd-Olive St
Site Code: 2200400005
Municipality: East Gwillimbury
Count Date: Oct 13, 2022

South Approach - Yonge St

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
15:00	1	15	9	0	25	0	2	1	0	3	0	0	0	0	0	0
15:15	1	19	10	0	30	1	0	3	0	4	0	0	0	0	0	0
15:30	3	17	12	0	32	0	0	2	0	2	0	0	0	0	0	0
15:45	2	24	13	0	39	1	0	1	0	2	0	0	0	0	0	0
16:00	3	24	11	0	38	2	0	3	0	5	0	3	0	0	3	0
16:15	1	31	18	0	50	0	3	2	0	5	0	0	0	0	0	0
16:30	1	43	23	0	67	2	3	2	0	7	1	2	0	0	3	0
16:45	2	49	25	0	76	0	3	1	0	4	1	1	0	0	2	0
17:00	3	57	25	0	85	0	3	2	0	5	0	0	1	0	1	0
17:15	1	53	29	0	83	0	4	3	0	7	1	0	0	0	1	0
17:30	1	33	23	0	57	0	3	1	0	4	0	0	0	0	0	0
17:45	1	28	18	0	47	0	2	1	0	3	1	0	0	0	1	0
SUBTOTAL	20	393	216	0	629	6	23	22	0	51	4	6	1	0	11	0
GRAND TOTAL	26	527	424	0	977	6	32	29	0	67	4	6	1	0	11	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Yonge St & Mount Albert Rd-Olive St
Site Code: 2200400005
Municipality: East Gwillimbury
Count Date: Oct 13, 2022

East Approach - Mount Albert Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	18	2	18	0	38	1	0	2	0	3	0	0	0	0	0	3
07:15	18	0	15	0	33	1	0	1	0	2	0	0	0	0	0	2
07:30	27	0	21	0	48	2	0	0	0	2	0	0	0	0	0	1
07:45	28	0	25	0	53	1	0	5	0	6	0	0	0	0	0	0
08:00	26	0	28	0	54	0	0	2	0	2	0	0	0	0	0	0
08:15	31	0	21	0	52	0	0	0	0	0	0	0	0	0	0	0
08:30	26	0	14	0	40	0	0	0	0	0	0	0	0	0	0	0
08:45	0	4	17	0	21	0	0	2	0	2	0	0	0	0	0	3
SUBTOTAL	174	6	159	0	339	5	0	12	0	17	0	0	0	0	0	9

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Yonge St & Mount Albert Rd-Olive St
Site Code: 2200400005
Municipality: East Gwillimbury
Count Date: Oct 13, 2022

East Approach - Mount Albert Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
15:00	6	1	19	0	26	1	0	1	0	2	0	0	0	0	0	2
15:15	8	4	22	0	34	3	0	0	0	3	0	0	0	0	0	5
15:30	7	3	20	0	30	1	0	2	0	3	0	0	0	0	0	1
15:45	6	5	24	0	35	2	2	0	0	4	0	0	0	0	0	2
16:00	8	4	23	0	35	2	0	0	0	2	0	0	0	0	0	2
16:15	11	5	38	0	54	2	0	0	0	2	0	0	0	0	0	3
16:30	26	7	47	0	80	2	0	0	0	2	0	0	0	0	0	4
16:45	22	4	54	0	80	0	2	2	0	4	0	0	0	0	0	2
17:00	24	0	43	0	67	1	0	2	0	3	0	0	0	0	0	3
17:15	28	5	51	0	84	0	2	1	0	3	0	0	0	0	0	4
17:30	35	3	35	0	73	3	0	0	0	3	0	0	0	0	0	3
17:45	31	6	31	0	68	1	0	3	0	4	0	0	0	0	0	3
SUBTOTAL	212	47	407	0	666	18	6	11	0	35	0	0	0	0	0	34
GRAND TOTAL	**386**	**53**	**566**	**0**	**1005**	**23**	**6**	**23**	**0**	**52**	**0**	**0**	**0**	**0**	**0**	**43**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Yonge St & Mount Albert Rd-Olive St
Site Code: 2200400005
Municipality: East Gwillimbury
Count Date: Oct 13, 2022

West Approach - Olive St

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
07:15	0	2	4	0	6	0	0	0	0	0	0	0	0	0	0	0
07:30	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
08:00	0	6	4	0	10	0	0	0	0	0	0	0	0	0	0	0
08:15	0	3	2	0	5	0	0	0	0	0	0	0	0	0	0	0
08:30	0	4	2	0	6	0	0	0	0	0	0	0	0	0	0	0
08:45	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	20	16	0	36	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Yonge St & Mount Albert Rd-Olive St
Site Code: 2200400005
Municipality: East Gwillimbury
Count Date: Oct 13, 2022

West Approach - Olive St

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
15:00	1	2	1	0	4	0	0	0	0	0	0	0	0	0	0	0
15:15	1	2	2	0	5	0	0	1	0	1	0	0	0	0	0	0
15:30	1	2	2	0	5	0	0	0	0	0	0	0	0	0	0	0
15:45	2	5	1	0	8	0	0	0	0	0	0	0	0	0	0	0
16:00	1	5	2	0	8	0	0	0	0	0	0	0	0	0	0	0
16:15	1	3	2	0	6	0	0	0	0	0	0	0	0	0	0	0
16:30	3	4	3	0	10	0	0	1	0	1	0	0	1	0	1	0
16:45	4	3	2	0	9	0	0	0	0	0	0	0	0	0	0	0
17:00	3	2	2	0	7	0	0	0	0	0	0	0	0	0	0	0
17:15	3	6	5	0	14	0	0	0	0	0	0	0	2	0	2	0
17:30	3	3	4	0	10	0	0	0	0	0	0	0	0	0	0	0
17:45	1	2	3	0	6	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	24	39	29	0	92	0	0	2	0	2	0	0	3	0	3	0
GRAND TOTAL	24	59	45	0	128	0	0	2	0	2	0	0	3	0	3	0

Peak Hour Diagram

Specified Period
From: 07:00:00
To: 09:00:00

One Hour Peak
From: 07:30:00
To: 08:30:00

Intersection: Yonge St & Mount Albert Rd-Olive St
Site Code: 2200400005
Count Date: Oct 13, 2022

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Yonge St runs N/S

North Approach

	Out	In	Total
Cars	383	166	549
Trucks	15	11	26
Bicycles	0	0	0
	398	**177**	**575**

Yonge St

Bicycles	0	0	0	0
Trucks	0	4	11	0
Cars	0	186	197	0
Totals	**0**	**190**	**208**	**0**

East Approach

	Out	In	Total
Cars	207	309	516
Trucks	10	13	23
Bicycles	0	0	0
	217	**322**	**539**

Peds: 0

Olive St

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	0	0	**0**
0	0	10	**10**
0	0	9	**9**

Peds: 0

Peds: 1

Mount Albert Rd

Totals	Cars	Trucks	Bicycles
0	0	0	0
102	95	7	0
0	0	0	0
115	112	3	0

Peds: 0

West Approach

	Out	In	Total
Cars	19	4	23
Trucks	0	0	0
Bicycles	0	0	0
	19	**4**	**23**

Yonge St

Totals	**4**	**75**	**104**	**0**
Cars	4	71	102	0
Trucks	0	4	2	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	177	307	484
Trucks	6	7	13
Bicycles	0	0	0
	183	**314**	**497**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Yonge St & Mount Albert Rd-Olive St
Site Code: 2200400005
Count Date: Oct 13, 2022
Period: 07:00 - 09:00

Peak Hour Data (07:30 - 08:30)

Start Time	North Approach Yonge St						South Approach Yonge St						East Approach Mount Albert Rd						West Approach Olive St						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
07:30	58	42	0	0	0	100	0	13	24	0	0	37	29	0	21	0	1	50	0	1	1	0	0	2	189
07:45	58	39	0	0	0	97	0	20	27	0	0	47	29	0	30	0	0	59	0	0	2	0	0	2	205
08:00	40	56	0	0	0	96	3	21	23	0	0	47	26	0	30	0	0	56	0	6	4	0	0	10	209
08:15	52	53	0	0	0	105	1	21	30	0	0	52	31	0	21	0	0	52	0	3	2	0	0	5	214
Grand Total	**208**	**190**	**0**	**0**	**0**	**398**	**4**	**75**	**104**	**0**	**0**	**183**	**115**	**0**	**102**	**0**	**1**	**217**	**0**	**10**	**9**	**0**	**0**	**19**	**817**
Approach %	52.3	47.7	0	0		-	2.2	41	56.8	0		-	53	0	47	0		-	0	52.6	47.4	0		-	
Totals %	25.5	23.3	0	0		48.7	0.5	9.2	12.7	0		22.4	14.1	0	12.5	0		26.6	0	1.2	1.1	0		2.3	
PHF	**0.9**	**0.85**	**0**	**0**		**0.95**	**0.33**	**0.89**	**0.87**	**0**		**0.88**	**0.93**	**0**	**0.85**	**0**		**0.92**	**0**	**0.42**	**0.56**	**0**		**0.48**	**0.95**
Cars	197	186	0	0		383	4	71	102	0		177	112	0	95	0		207	0	10	9	0		19	786
% Cars	94.7	97.9	0	0		96.2	100	94.7	98.1	0		96.7	97.4	0	93.1	0		95.4	0	100	100	0		100	96.2
Trucks	11	4	0	0		15	0	4	2	0		6	3	0	7	0		10	0	0	0	0		0	31
% Trucks	5.3	2.1	0	0		3.8	0	5.3	1.9	0		3.3	2.6	0	6.9	0		4.6	0	0	0	0		0	3.8
Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
% Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
Peds					0	-					0	-					1	-					0	-	1
% Peds					0	-					0	-					100	-					0	-	

Peak Hour Diagram

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

One Hour Peak
From: 16:30:00
To: 17:30:00

Intersection: Yonge St & Mount Albert Rd-Olive St
Site Code: 2200400005
Count Date: Oct 13, 2022

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Yonge St runs N/S

North Approach

	Out	In	Total
Cars	174	410	584
Trucks	11	18	29
Bicycles	4	3	7
	189	**431**	**620**

Yonge St

Bicycles	0	4	0	0
Trucks	0	6	5	0
Cars	5	72	97	0
Totals	**5**	**82**	**102**	**0**

East Approach

	Out	In	Total
Cars	311	214	525
Trucks	12	13	25
Bicycles	0	1	1
	323	**228**	**551**

Peds: 0

Olive St

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	
0	0	13	**13**	
0	0	15	**15**	
3	1	12	**16**	

Peds: 0

Peds: 13

Mount Albert Rd

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	200	195	5	0
	20	16	4	0
	103	100	3	0

Peds: 0

West Approach

	Out	In	Total
Cars	40	28	68
Trucks	1	6	7
Bicycles	3	3	6
	44	**37**	**81**

Totals	**12**	**218**	**111**	**0**
Cars	7	202	102	0
Trucks	2	13	8	0
Bicycles	3	3	1	0

Yonge St

South Approach

	Out	In	Total
Cars	311	184	495
Trucks	23	10	33
Bicycles	7	7	14
	341	**201**	**542**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

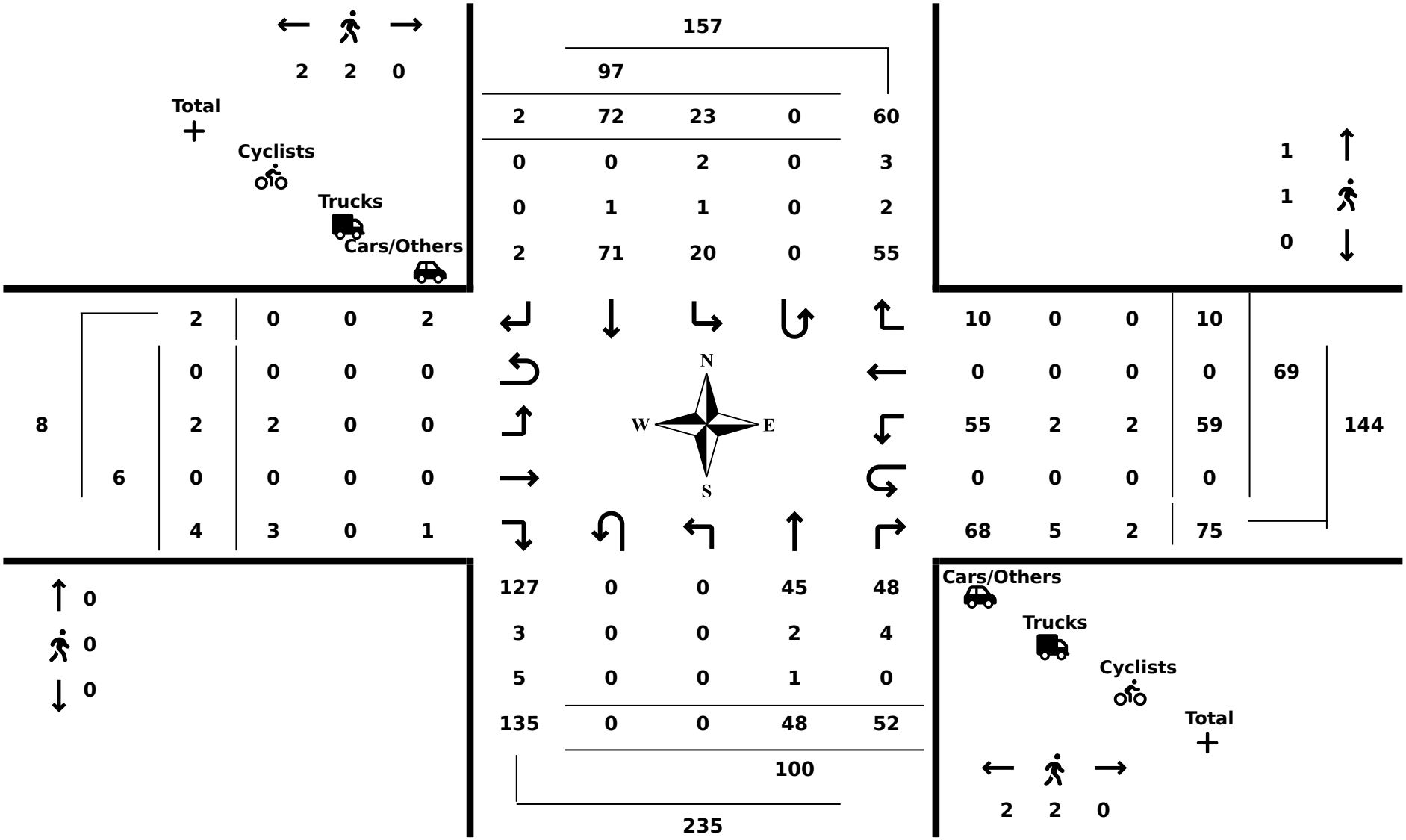
Intersection: Yonge St & Mount Albert Rd-Olive St
Site Code: 2200400005
Count Date: Oct 13, 2022
Period: 15:00 - 18:00

Peak Hour Data (16:30 - 17:30)

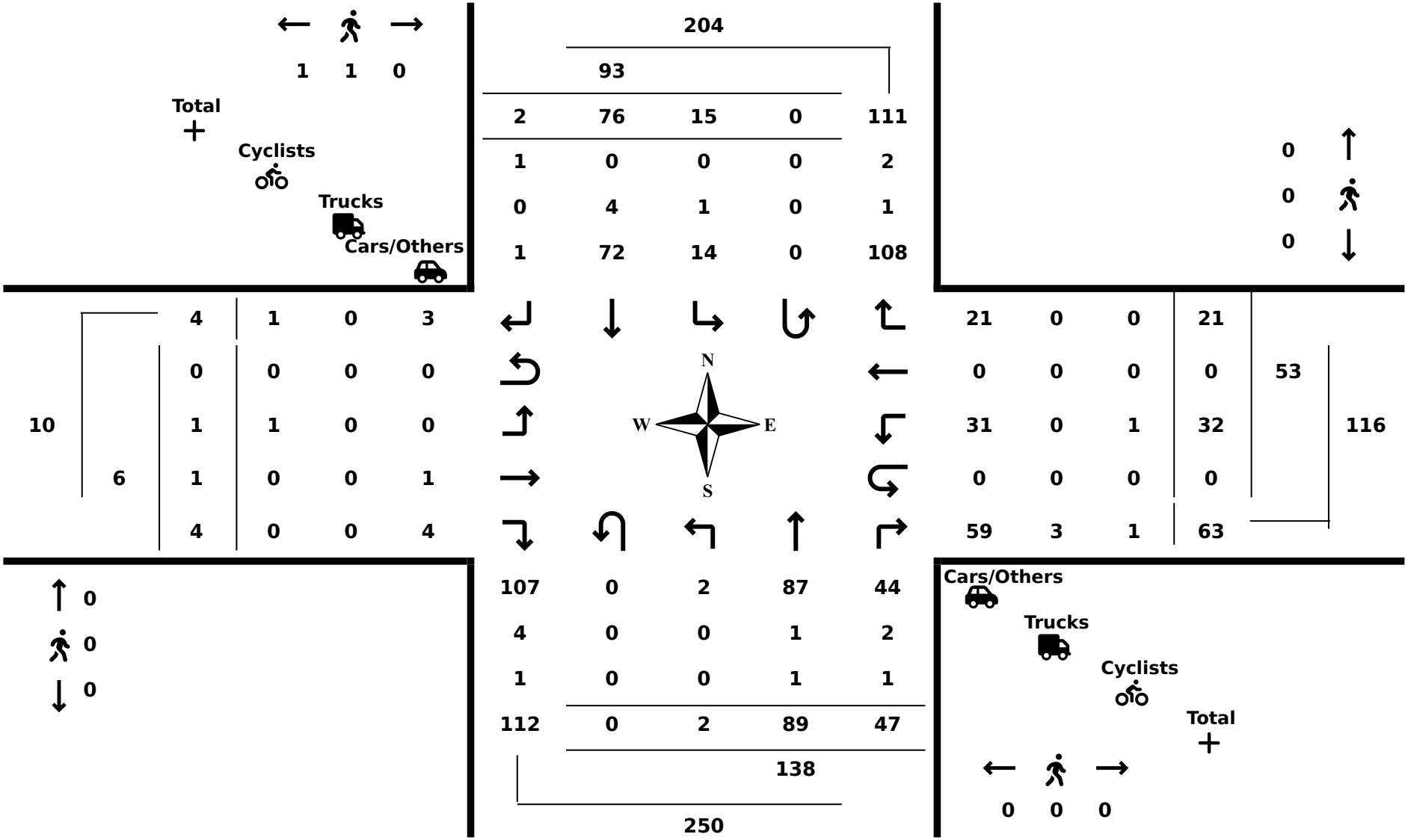
Start Time	North Approach Yonge St						South Approach Yonge St						East Approach Mount Albert Rd						West Approach Olive St						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:30	21	14	1	0	0	36	4	48	25	0	0	77	28	7	47	0	4	82	3	4	5	0	0	12	207
16:45	29	20	2	0	0	51	3	53	26	0	0	82	22	6	56	0	2	84	4	3	2	0	0	9	226
17:00	29	27	1	0	0	57	3	60	28	0	0	91	25	0	45	0	3	70	3	2	2	0	0	7	225
17:15	23	21	1	0	0	45	2	57	32	0	0	91	28	7	52	0	4	87	3	6	7	0	0	16	239
Grand Total	**102**	**82**	**5**	**0**	**0**	**189**	**12**	**218**	**111**	**0**	**0**	**341**	**103**	**20**	**200**	**0**	**13**	**323**	**13**	**15**	**16**	**0**	**0**	**44**	**897**
Approach %	54	43.4	2.6	0		-	3.5	63.9	32.6	0		-	31.9	6.2	61.9	0		-	29.5	34.1	36.4	0		-	
Totals %	11.4	9.1	0.6	0		21.1	1.3	24.3	12.4	0		38	11.5	2.2	22.3	0		36	1.4	1.7	1.8	0		4.9	
PHF	**0.88**	**0.76**	**0.63**	**0**		**0.83**	**0.75**	**0.91**	**0.87**	**0**		**0.94**	**0.92**	**0.71**	**0.89**	**0**		**0.93**	**0.81**	**0.63**	**0.57**	**0**		**0.69**	**0.94**
Cars	97	72	5	0		174	7	202	102	0		311	100	16	195	0		311	13	15	12	0		40	836
% Cars	95.1	87.8	100	0		92.1	58.3	92.7	91.9	0		91.2	97.1	80	97.5	0		96.3	100	100	75	0		90.9	93.2
Trucks	5	6	0	0		11	2	13	8	0		23	3	4	5	0		12	0	0	1	0		1	47
% Trucks	4.9	7.3	0	0		5.8	16.7	6	7.2	0		6.7	2.9	20	2.5	0		3.7	0	0	6.3	0		2.3	5.2
Bicycles	0	4	0	0		4	3	3	1	0		7	0	0	0	0		0	0	0	3	0		3	14
% Bicycles	0	4.9	0	0		2.1	25	1.4	0.9	0		2.1	0	0	0	0		0	0	0	18.8	0		6.8	1.6
Peds					0	-					0	-					13	-					0	-	13
% Peds					0	-					0	-					100	-					0	-	

Turning Movement Count Peak Hour Diagram

Location:	Doane Road @ Doane Road West/Yonge Street	**Municipality:**	
Jurisdiction:		**Start Date:** 07/26/2023 07:45:00	**End Date:** 07/26/2023 08:45:00



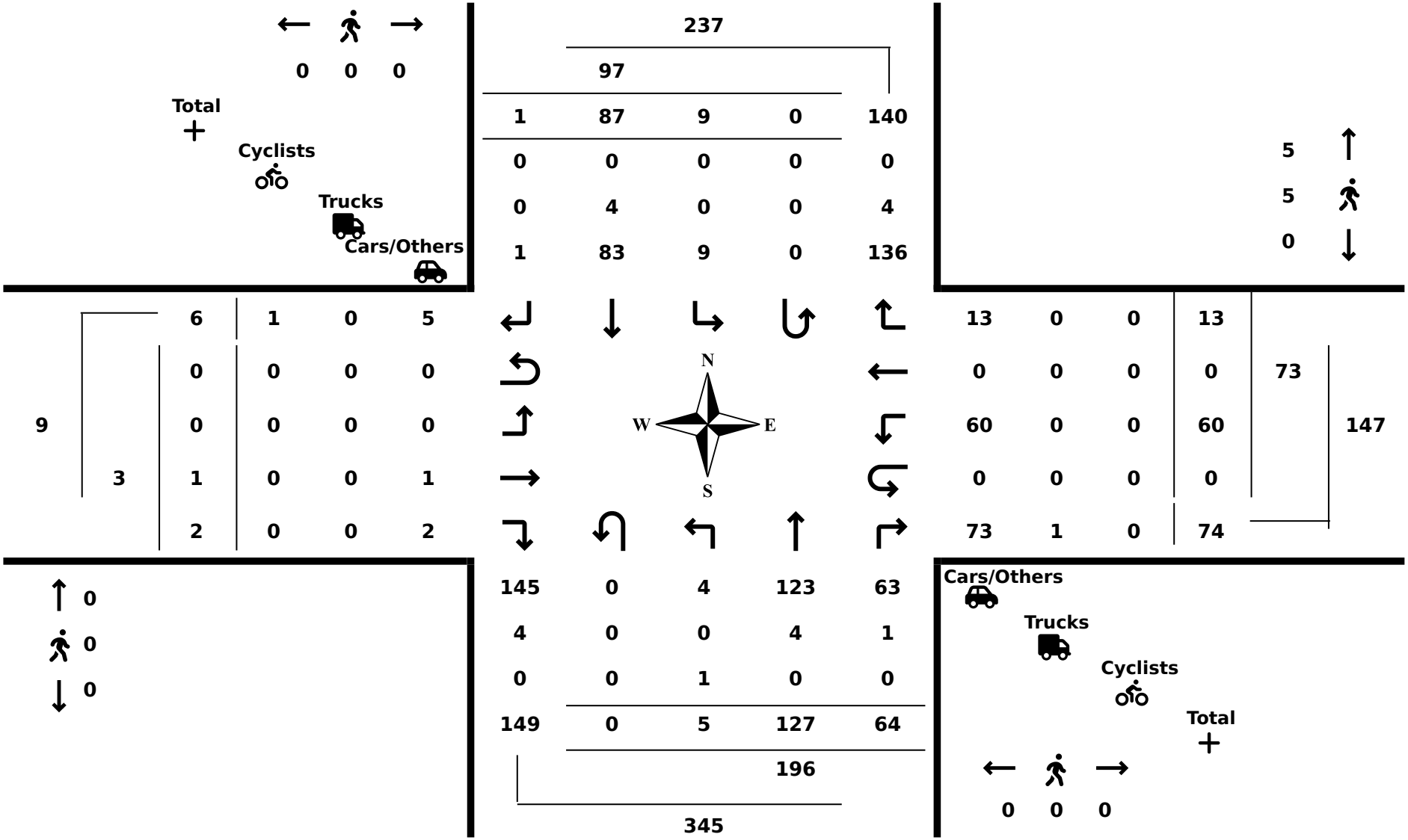
Location:	Doane Road @ Doane Road West/Yonge Street	**Municipality:**	
Jurisdiction:	**Start Date:** 07/26/2023 11:45:00	**End Date:**	07/26/2023 12:45:00



© York Region

TES www.tes.ca

Location:	Doane Road @ Doane Road West/Yonge Street	**Municipality:**	
Jurisdiction:	**Start Date:** 07/26/2023 17:00:00	**End Date:**	07/26/2023 18:00:00



© York Region

TES www.tes.ca

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Doane Road & Silk Twist Drive
Site Code: 230671
Start Date: 05/14/2024

Turning Movement Data

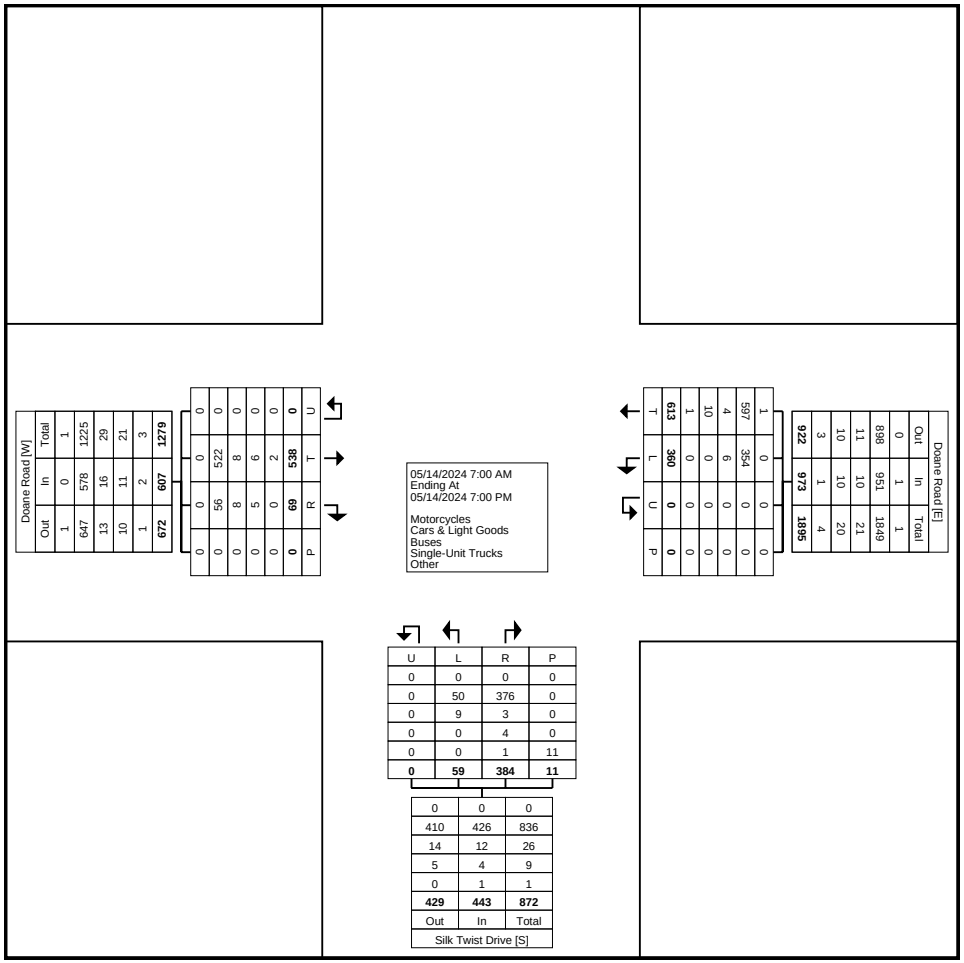
Start Time	Doane Road Eastbound					Doane Road Westbound					Silk Twist Drive Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
7:00 AM	8	0	0	0	8	2	7	0	0	9	0	12	0	0	12	29
7:15 AM	17	2	0	0	19	4	8	0	0	12	3	16	0	0	19	50
7:30 AM	10	1	0	0	11	1	3	0	0	4	0	11	0	0	11	26
7:45 AM	19	3	0	0	22	3	14	0	0	17	0	18	0	0	18	57
Hourly Total	54	6	0	0	60	10	32	0	0	42	3	57	0	0	60	162
8:00 AM	17	2	0	0	19	3	11	0	0	14	1	20	0	1	21	54
8:15 AM	10	5	0	0	15	2	17	0	0	19	6	17	0	1	23	57
8:30 AM	19	2	0	0	21	8	4	0	0	12	0	23	0	1	23	56
8:45 AM	10	1	0	0	11	13	13	0	0	26	3	21	0	2	24	61
Hourly Total	56	10	0	0	66	26	45	0	0	71	10	81	0	5	91	228
9:00 AM	15	4	0	0	19	13	12	0	0	25	0	12	0	5	12	56
9:15 AM	14	0	0	0	14	6	9	0	0	15	0	12	0	0	12	41
9:30 AM	13	1	0	0	14	5	9	0	0	14	1	6	0	0	7	35
9:45 AM	7	3	0	0	10	1	5	0	0	6	4	8	0	0	12	28
Hourly Total	49	8	0	0	57	25	35	0	0	60	5	38	0	5	43	160
10:00 AM	14	1	0	0	15	6	8	0	0	14	1	5	0	0	6	35
10:15 AM	11	0	0	0	11	6	17	0	0	23	1	8	0	0	9	43
10:30 AM	6	1	0	0	7	1	7	0	0	8	2	8	0	0	10	25
10:45 AM	10	0	0	0	10	4	9	0	0	13	3	4	0	0	7	30
Hourly Total	41	2	0	0	43	17	41	0	0	58	7	25	0	0	32	133
11:00 AM	9	1	0	0	10	3	5	0	0	8	1	3	0	0	4	22
11:15 AM	12	1	0	0	13	3	13	0	0	16	0	3	0	0	3	32
11:30 AM	13	0	0	0	13	1	10	0	0	11	3	4	0	0	7	31
11:45 AM	9	1	0	0	10	2	15	0	0	17	0	3	0	0	3	30
Hourly Total	43	3	0	0	46	9	43	0	0	52	4	13	0	0	17	115
12:00 PM	4	0	0	0	4	4	10	0	0	14	1	12	0	0	13	31
12:15 PM	15	0	0	0	15	4	13	0	0	17	0	6	0	0	6	38
12:30 PM	6	3	0	0	9	5	14	0	0	19	1	5	0	0	6	34
12:45 PM	10	1	0	0	11	5	11	0	0	16	1	5	0	0	6	33
Hourly Total	35	4	0	0	39	18	48	0	0	66	3	28	0	0	31	136
1:00 PM	8	0	0	0	8	10	9	0	0	19	0	7	0	0	7	34
1:15 PM	12	1	0	0	13	3	11	0	0	14	1	4	0	0	5	32
1:30 PM	9	1	0	0	10	3	5	0	0	8	1	1	0	0	2	20
1:45 PM	8	1	0	0	9	1	13	0	0	14	0	5	0	0	5	28
Hourly Total	37	3	0	0	40	17	38	0	0	55	2	17	0	0	19	114
2:00 PM	12	3	0	0	15	3	14	0	0	17	0	3	0	0	3	35

2:15 PM	3	1	0	0	4	2	10	0	0	12	0	4	0	0	4	20
2:30 PM	5	1	0	0	6	7	10	0	0	17	2	3	0	0	5	28
2:45 PM	7	1	0	0	8	4	13	0	0	17	3	4	0	0	7	32
Hourly Total	27	6	0	0	33	16	47	0	0	63	5	14	0	0	19	115
3:00 PM	17	3	0	0	20	13	12	0	0	25	3	9	0	0	12	57
3:15 PM	13	1	0	0	14	11	18	0	0	29	2	6	0	0	8	51
3:30 PM	17	1	0	0	18	12	24	0	0	36	1	11	0	0	12	66
3:45 PM	7	2	0	0	9	9	28	0	0	37	3	6	0	0	9	55
Hourly Total	54	7	0	0	61	45	82	0	0	127	9	32	0	0	41	229
4:00 PM	15	0	0	0	15	15	22	0	0	37	0	6	0	0	6	58
4:15 PM	5	3	0	0	8	19	20	0	0	39	2	4	0	0	6	53
4:30 PM	12	0	0	0	12	17	18	0	0	35	1	6	0	0	7	54
4:45 PM	12	1	0	0	13	13	19	0	0	32	1	8	0	0	9	54
Hourly Total	44	4	0	0	48	64	79	0	0	143	4	24	0	0	28	219
5:00 PM	15	3	0	0	18	15	18	0	0	33	1	11	0	0	12	63
5:15 PM	14	1	0	0	15	11	18	0	0	29	1	5	0	0	6	50
5:30 PM	14	4	0	0	18	14	21	0	0	35	1	7	0	0	8	61
5:45 PM	8	0	0	0	8	18	16	0	0	34	2	5	0	0	7	49
Hourly Total	51	8	0	0	59	58	73	0	0	131	5	28	0	0	33	223
6:00 PM	17	1	0	0	18	16	10	0	0	26	0	7	0	0	7	51
6:15 PM	10	5	0	0	15	15	12	0	0	27	0	4	0	0	4	46
6:30 PM	10	0	0	0	10	11	18	0	0	29	1	9	0	1	10	49
6:45 PM	10	2	0	0	12	13	10	0	0	23	1	7	0	0	8	43
Hourly Total	47	8	0	0	55	55	50	0	0	105	2	27	0	1	29	189
Grand Total	538	69	0	0	607	360	613	0	0	973	59	384	0	11	443	2023
Approach %	88.6	11.4	0.0	-	-	37.0	63.0	0.0	-	-	13.3	86.7	0.0	-	-	-
Total %	26.6	3.4	0.0	-	30.0	17.8	30.3	0.0	-	48.1	2.9	19.0	0.0	-	21.9	-
Motorcycles	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.2	-	-	0.1	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	522	56	0	-	578	354	597	0	-	951	50	376	0	-	426	1955
% Cars & Light Goods	97.0	81.2	-	-	95.2	98.3	97.4	-	-	97.7	84.7	97.9	-	-	96.2	96.6
Buses	8	8	0	-	16	6	4	0	-	10	9	3	0	-	12	38
% Buses	1.5	11.6	-	-	2.6	1.7	0.7	-	-	1.0	15.3	0.8	-	-	2.7	1.9
Single-Unit Trucks	6	5	0	-	11	0	10	0	-	10	0	4	0	-	4	25
% Single-Unit Trucks	1.1	7.2	-	-	1.8	0.0	1.6	-	-	1.0	0.0	1.0	-	-	0.9	1.2
Articulated Trucks	1	0	0	-	1	0	0	0	-	0	0	1	0	-	1	2
% Articulated Trucks	0.2	0.0	-	-	0.2	0.0	0.0	-	-	0.0	0.0	0.3	-	-	0.2	0.1
Bicycles on Road	1	0	0	-	1	0	1	0	-	1	0	0	0	-	0	2
% Bicycles on Road	0.2	0.0	-	-	0.2	0.0	0.2	-	-	0.1	0.0	0.0	-	-	0.0	0.1
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	11	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Doane Road & Silk Twist Drive
Site Code: 230671
Start Date: 05/14/2024



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: Doane Road & Silk Twist Drive
Site Code: 230671
Start Date: 05/14/2024

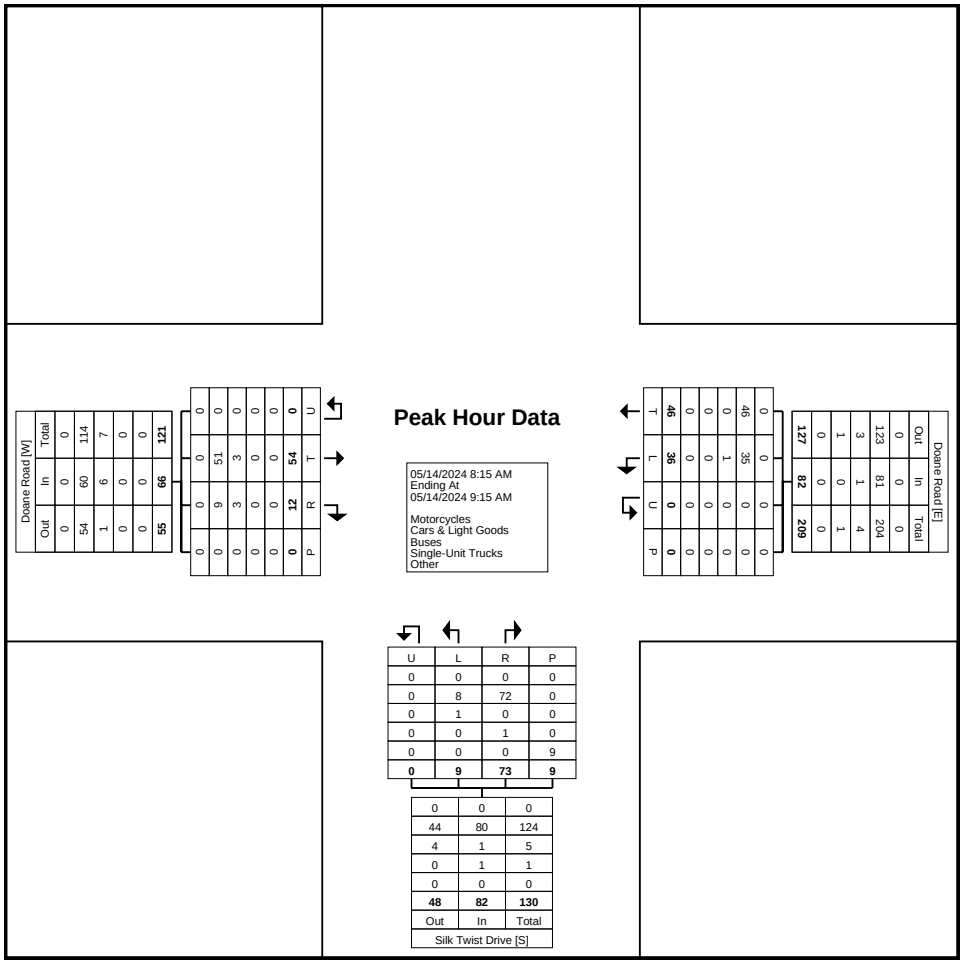
Turning Movement Peak Hour Data (8:15 AM)

Start Time	Doane Road Eastbound					Doane Road Westbound					Silk Twist Drive Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
8:15 AM	10	5	0	0	15	2	17	0	0	19	6	17	0	1	23	57
8:30 AM	19	2	0	0	21	8	4	0	0	12	0	23	0	1	23	56
8:45 AM	10	1	0	0	11	13	13	0	0	26	3	21	0	2	24	61
9:00 AM	15	4	0	0	19	13	12	0	0	25	0	12	0	5	12	56
Total	54	12	0	0	66	36	46	0	0	82	9	73	0	9	82	230
Approach %	81.8	18.2	0.0	-	-	43.9	56.1	0.0	-	-	11.0	89.0	0.0	-	-	-
Total %	23.5	5.2	0.0	-	28.7	15.7	20.0	0.0	-	35.7	3.9	31.7	0.0	-	35.7	-
PHF	0.711	0.600	0.000	-	0.786	0.692	0.676	0.000	-	0.788	0.375	0.793	0.000	-	0.854	0.943
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
Cars & Light Goods	51	9	0	-	60	35	46	0	-	81	8	72	0	-	80	221
% Cars & Light Goods	94.4	75.0	-	-	90.9	97.2	100.0	-	-	98.8	88.9	98.6	-	-	97.6	96.1
Buses	3	3	0	-	6	1	0	0	-	1	1	0	0	-	1	8
% Buses	5.6	25.0	-	-	9.1	2.8	0.0	-	-	1.2	11.1	0.0	-	-	1.2	3.5
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	1	0	-	1	1
% Single-Unit Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	1.4	-	-	1.2	0.4
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
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
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	9	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Doane Road & Silk Twist Drive
Site Code: 230671
Start Date: 05/14/2024



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: Doane Road & Silk Twist Drive
Site Code: 230671
Start Date: 05/14/2024

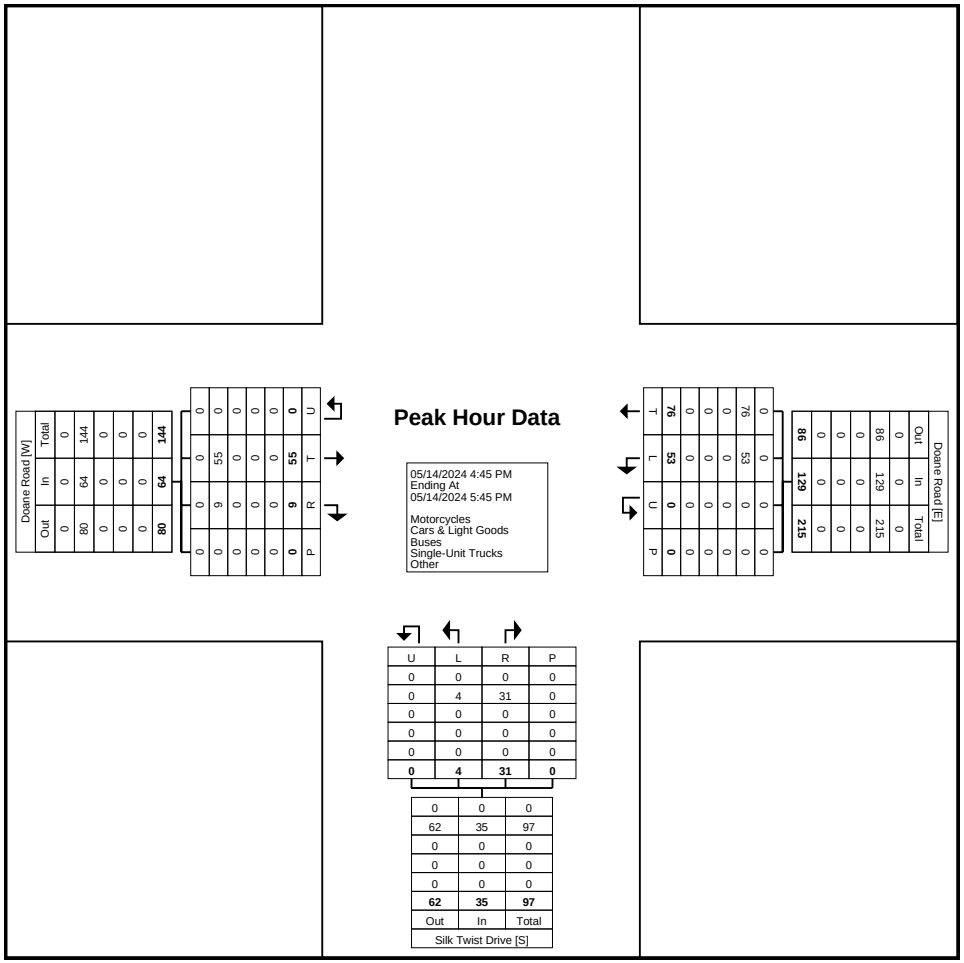
Turning Movement Peak Hour Data (4:45 PM)

Start Time	Doane Road Eastbound					Doane Road Westbound					Silk Twist Drive Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
4:45 PM	12	1	0	0	13	13	19	0	0	32	1	8	0	0	9	54
5:00 PM	15	3	0	0	18	15	18	0	0	33	1	11	0	0	12	63
5:15 PM	14	1	0	0	15	11	18	0	0	29	1	5	0	0	6	50
5:30 PM	14	4	0	0	18	14	21	0	0	35	1	7	0	0	8	61
Total	55	9	0	0	64	53	76	0	0	129	4	31	0	0	35	228
Approach %	85.9	14.1	0.0	-	-	41.1	58.9	0.0	-	-	11.4	88.6	0.0	-	-	-
Total %	24.1	3.9	0.0	-	28.1	23.2	33.3	0.0	-	56.6	1.8	13.6	0.0	-	15.4	-
PHF	0.917	0.563	0.000	-	0.889	0.883	0.905	0.000	-	0.921	1.000	0.705	0.000	-	0.729	0.905
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
Cars & Light Goods	55	9	0	-	64	53	76	0	-	129	4	31	0	-	35	228
% Cars & Light Goods	100.0	100.0	-	-	100.0	100.0	100.0	-	-	100.0	100.0	100.0	-	-	100.0	100.0
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

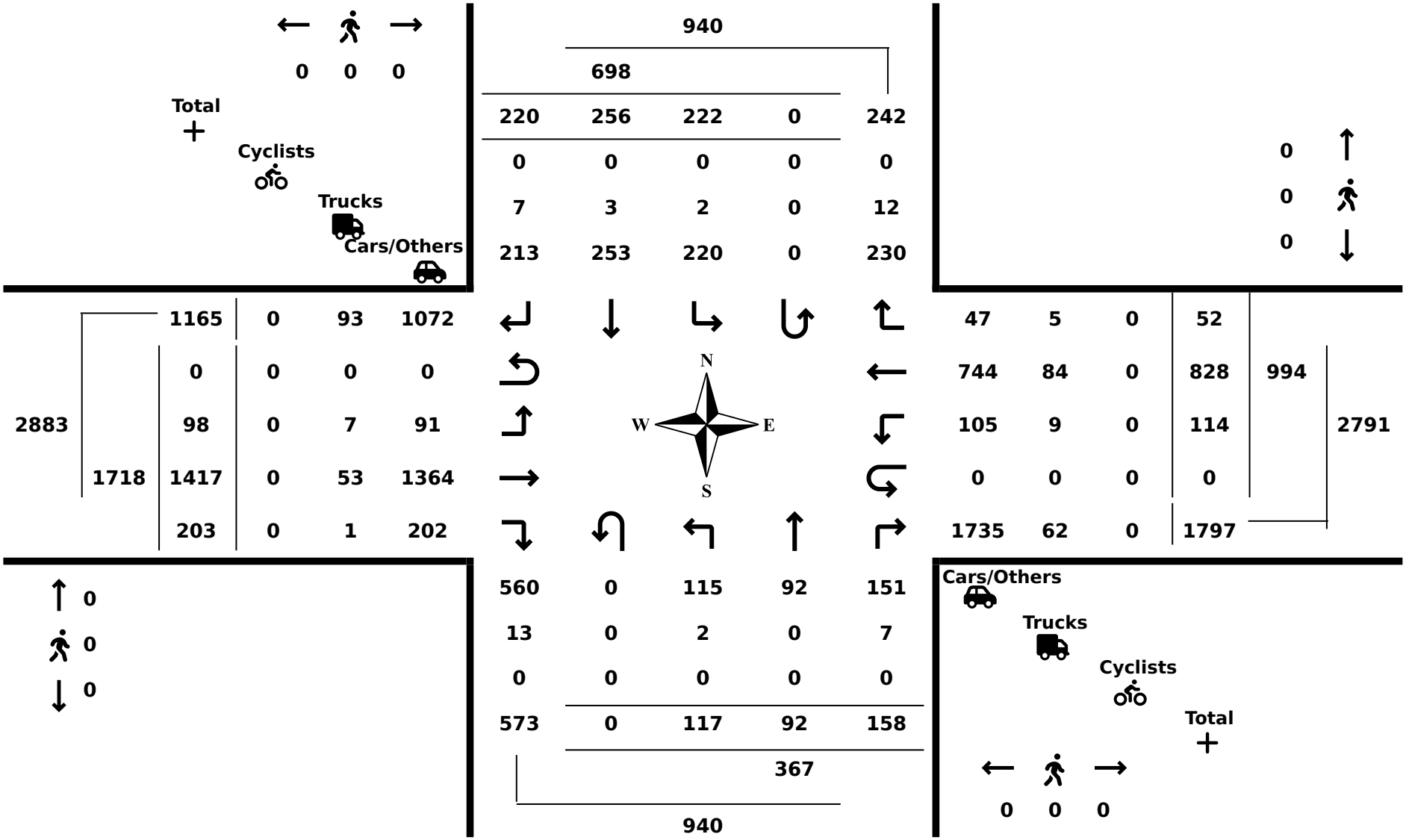
Count Name: Doane Road & Silk Twist Drive
Site Code: 230671
Start Date: 05/14/2024



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

Turning Movement Count Peak Hour Diagram

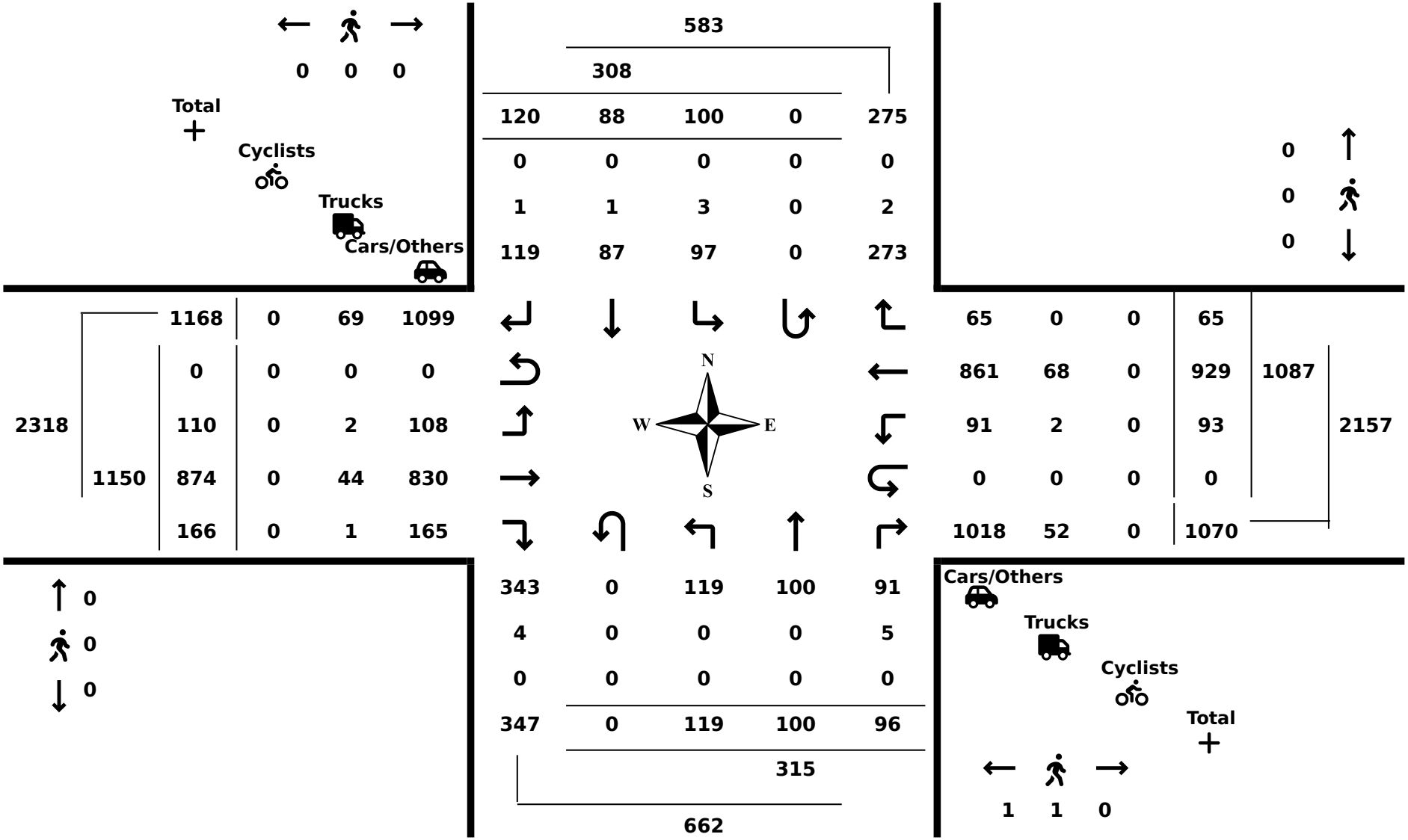
Location:	Green Lane East @ Main Street North/2nd Concession Road	**Municipality:**	East Gwillimbury
Jurisdiction:	Regional municipality	**Start Date:** 02/21/2024 07:30:00	**End Date:** 02/21/2024 08:30:00



© York Region

TES www.tes.ca

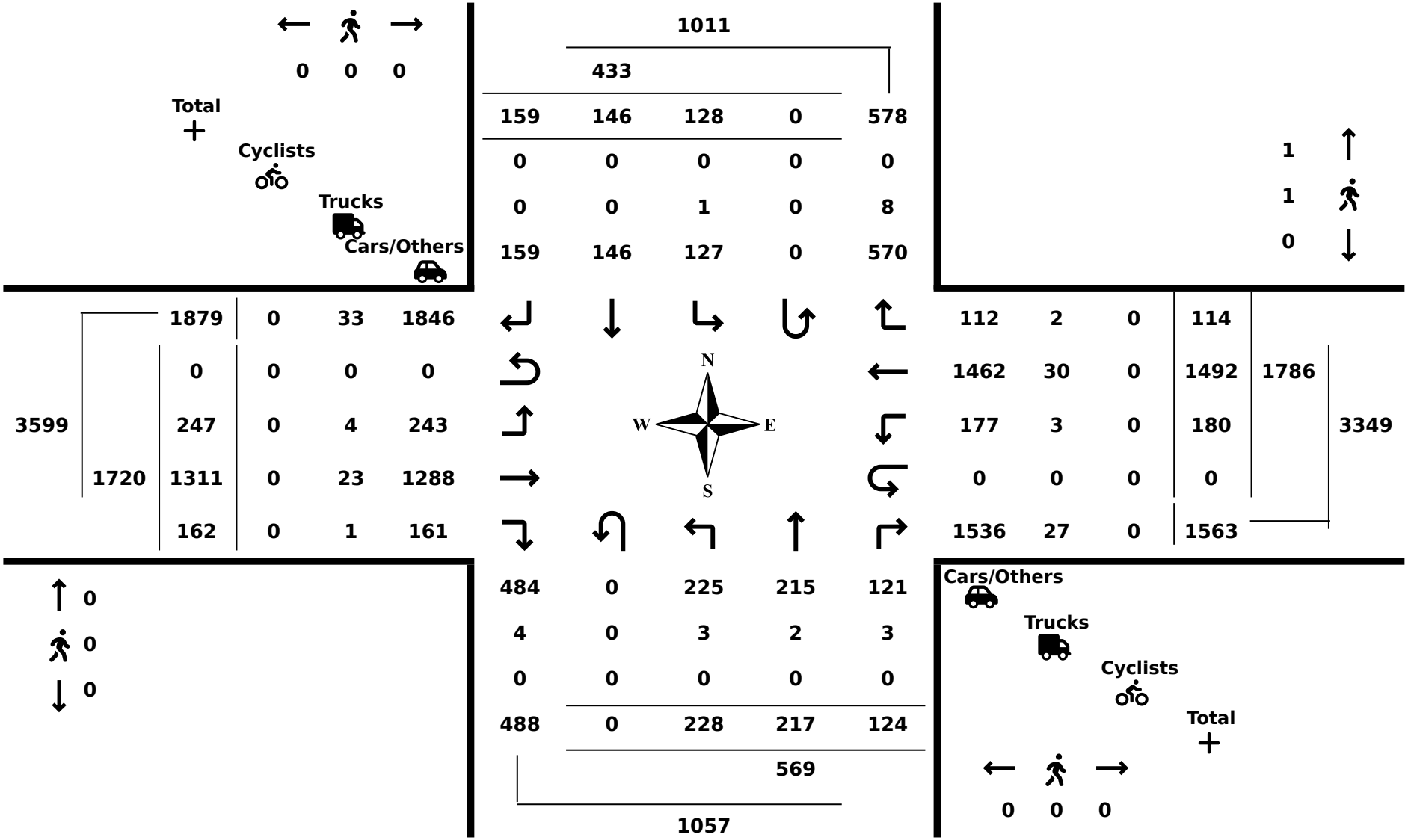
Location:	Green Lane East @ Main Street North/2nd Concession Road			**Municipality:**	East Gwillimbury
Jurisdiction:	Regional municipality	**Start Date:**	02/21/2024 12:30:00	**End Date:**	02/21/2024 13:30:00



© York Region

TES www.tes.ca

Location:	Green Lane East @ Main Street North/2nd Concession Road	**Municipality:**	East Gwillimbury
Jurisdiction:	Regional municipality	**Start Date:** 02/21/2024 16:30:00	**End Date:** 02/21/2024 17:30:00



© York Region

TES www.tes.ca

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Green Lane E & Harry Walker Parkway
Site Code: 230671
Start Date: 05/14/2024

Turning Movement Data

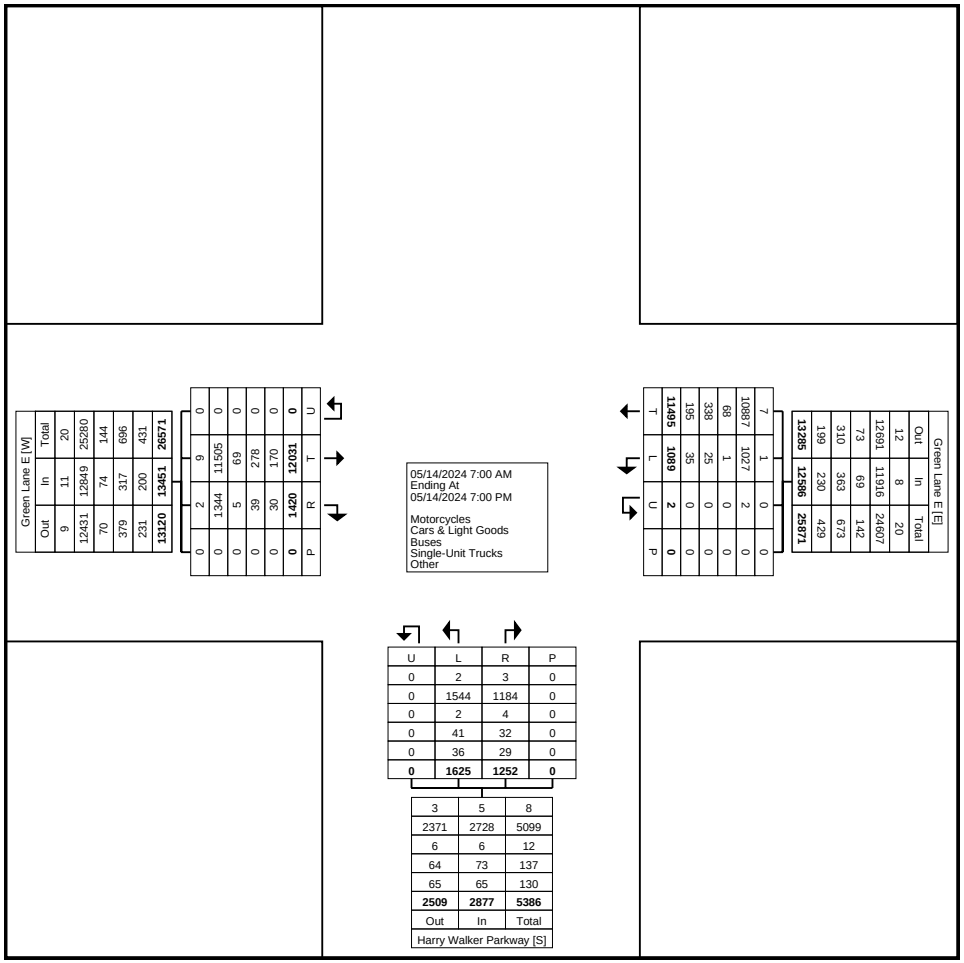
Start Time	Green Lane E Eastbound					Green Lane E Westbound					Harry Walker Parkway Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
7:00 AM	379	35	0	0	414	25	187	0	0	212	13	7	0	0	20	646
7:15 AM	302	35	0	0	337	30	212	0	0	242	7	4	0	0	11	590
7:30 AM	342	46	0	0	388	52	230	0	0	282	12	13	0	0	25	695
7:45 AM	291	67	0	0	358	69	192	0	0	261	12	13	0	0	25	644
Hourly Total	1314	183	0	0	1497	176	821	0	0	997	44	37	0	0	81	2575
8:00 AM	305	64	0	0	369	35	221	0	0	256	17	8	0	0	25	650
8:15 AM	283	57	0	0	340	58	251	0	0	309	19	12	0	0	31	680
8:30 AM	297	51	0	0	348	41	225	0	0	266	14	4	0	0	18	632
8:45 AM	256	54	0	0	310	55	209	0	0	264	17	13	0	0	30	604
Hourly Total	1141	226	0	0	1367	189	906	0	0	1095	67	37	0	0	104	2566
9:00 AM	281	39	0	0	320	26	209	0	0	235	15	12	0	0	27	582
9:15 AM	272	34	0	0	306	23	194	0	0	217	32	11	0	0	43	566
9:30 AM	252	19	0	0	271	23	200	0	0	223	18	13	0	0	31	525
9:45 AM	203	20	0	0	223	21	217	0	0	238	14	11	0	0	25	486
Hourly Total	1008	112	0	0	1120	93	820	0	0	913	79	47	0	0	126	2159
10:00 AM	200	28	0	0	228	19	185	0	0	204	10	15	0	0	25	457
10:15 AM	202	25	0	0	227	19	185	0	0	204	22	19	0	0	41	472
10:30 AM	204	20	0	0	224	15	184	0	0	199	26	16	0	0	42	465
10:45 AM	198	32	0	0	230	27	169	0	0	196	30	25	0	0	55	481
Hourly Total	804	105	0	0	909	80	723	0	0	803	88	75	0	0	163	1875
11:00 AM	202	29	0	0	231	32	184	0	0	216	23	14	0	0	37	484
11:15 AM	211	15	0	0	226	13	183	0	0	196	28	14	0	0	42	464
11:30 AM	214	35	0	0	249	10	204	0	0	214	21	14	0	0	35	498
11:45 AM	196	33	0	0	229	12	193	0	0	205	28	16	0	0	44	478
Hourly Total	823	112	0	0	935	67	764	0	0	831	100	58	0	0	158	1924
12:00 PM	198	32	0	0	230	16	192	0	0	208	33	20	0	0	53	491
12:15 PM	205	31	0	0	236	22	228	0	0	250	39	15	0	0	54	540
12:30 PM	205	35	0	0	240	20	182	0	0	202	23	21	0	0	44	486
12:45 PM	181	46	0	0	227	16	218	0	0	234	33	20	0	0	53	514
Hourly Total	789	144	0	0	933	74	820	0	0	894	128	76	0	0	204	2031
1:00 PM	199	24	0	0	223	17	194	1	0	212	32	21	0	0	53	488
1:15 PM	206	36	0	0	242	16	223	0	0	239	18	12	0	0	30	511
1:30 PM	206	41	0	0	247	29	219	0	0	248	31	14	0	0	45	540
1:45 PM	207	33	0	0	240	24	216	0	0	240	19	13	0	0	32	512
Hourly Total	818	134	0	0	952	86	852	1	0	939	100	60	0	0	160	2051
2:00 PM	238	26	0	0	264	15	225	0	0	240	37	25	0	0	62	566

2:15 PM	197	22	0	0	219	12	263	0	0	275	69	48	0	0	117	611
2:30 PM	248	16	0	0	264	6	248	0	0	254	40	16	0	0	56	574
2:45 PM	231	23	0	0	254	11	226	0	0	237	49	40	0	0	89	580
Hourly Total	914	87	0	0	1001	44	962	0	0	1006	195	129	0	0	324	2331
3:00 PM	238	23	0	0	261	17	309	0	0	326	68	53	0	0	121	708
3:15 PM	261	28	0	0	289	16	340	0	0	356	52	32	0	0	84	729
3:30 PM	262	26	0	0	288	21	303	0	0	324	62	62	0	0	124	736
3:45 PM	268	29	0	0	297	23	320	0	0	343	45	43	0	0	88	728
Hourly Total	1029	106	0	0	1135	77	1272	0	0	1349	227	190	0	0	417	2901
4:00 PM	287	23	0	0	310	14	321	0	0	335	97	73	0	0	170	815
4:15 PM	290	28	0	0	318	28	300	0	0	328	53	50	0	0	103	749
4:30 PM	313	17	0	0	330	20	323	1	0	344	84	97	0	0	181	855
4:45 PM	307	18	0	0	325	16	304	0	0	320	63	42	0	0	105	750
Hourly Total	1197	86	0	0	1283	78	1248	1	0	1327	297	262	0	0	559	3169
5:00 PM	320	14	0	0	334	22	306	0	0	328	99	100	0	0	199	861
5:15 PM	325	11	0	0	336	18	322	0	0	340	57	52	0	0	109	785
5:30 PM	259	14	0	0	273	23	332	0	0	355	38	32	0	0	70	698
5:45 PM	312	17	0	0	329	12	310	0	0	322	32	20	0	0	52	703
Hourly Total	1216	56	0	0	1272	75	1270	0	0	1345	226	204	0	0	430	3047
6:00 PM	269	14	0	0	283	5	296	0	0	301	20	29	0	0	49	633
6:15 PM	265	22	0	0	287	13	303	0	0	316	21	17	0	0	38	641
6:30 PM	225	18	0	0	243	17	232	0	0	249	24	14	0	0	38	530
6:45 PM	219	15	0	0	234	15	206	0	0	221	9	17	0	0	26	481
Hourly Total	978	69	0	0	1047	50	1037	0	0	1087	74	77	0	0	151	2285
Grand Total	12031	1420	0	0	13451	1089	11495	2	0	12586	1625	1252	0	0	2877	28914
Approach %	89.4	10.6	0.0	-	-	8.7	91.3	0.0	-	-	56.5	43.5	0.0	-	-	-
Total %	41.6	4.9	0.0	-	46.5	3.8	39.8	0.0	-	43.5	5.6	4.3	0.0	-	10.0	-
Motorcycles	9	2	0	-	11	1	7	0	-	8	2	3	0	-	5	24
% Motorcycles	0.1	0.1	-	-	0.1	0.1	0.1	0.0	-	0.1	0.1	0.2	-	-	0.2	0.1
Cars & Light Goods	11505	1344	0	-	12849	1027	10887	2	-	11916	1544	1184	0	-	2728	27493
% Cars & Light Goods	95.6	94.6	-	-	95.5	94.3	94.7	100.0	-	94.7	95.0	94.6	-	-	94.8	95.1
Buses	69	5	0	-	74	1	68	0	-	69	2	4	0	-	6	149
% Buses	0.6	0.4	-	-	0.6	0.1	0.6	0.0	-	0.5	0.1	0.3	-	-	0.2	0.5
Single-Unit Trucks	278	39	0	-	317	25	338	0	-	363	41	32	0	-	73	753
% Single-Unit Trucks	2.3	2.7	-	-	2.4	2.3	2.9	0.0	-	2.9	2.5	2.6	-	-	2.5	2.6
Articulated Trucks	170	30	0	-	200	34	195	0	-	229	36	29	0	-	65	494
% Articulated Trucks	1.4	2.1	-	-	1.5	3.1	1.7	0.0	-	1.8	2.2	2.3	-	-	2.3	1.7
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	0.1	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Green Lane E & Harry Walker Parkway
Site Code: 230671
Start Date: 05/14/2024



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: Green Lane E & Harry Walker Parkway
Site Code: 230671
Start Date: 05/14/2024

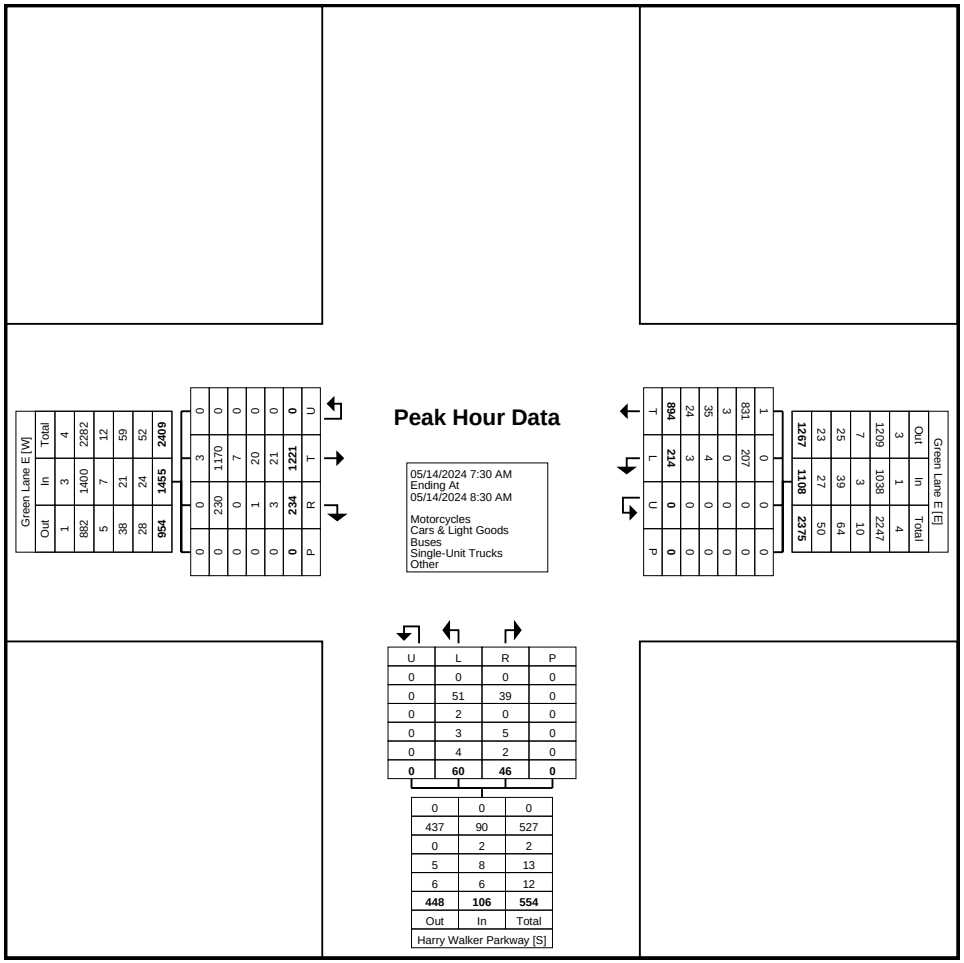
Turning Movement Peak Hour Data (7:30 AM)

Start Time	Green Lane E Eastbound					Green Lane E Westbound					Harry Walker Parkway Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
7:30 AM	342	46	0	0	388	52	230	0	0	282	12	13	0	0	25	695
7:45 AM	291	67	0	0	358	69	192	0	0	261	12	13	0	0	25	644
8:00 AM	305	64	0	0	369	35	221	0	0	256	17	8	0	0	25	650
8:15 AM	283	57	0	0	340	58	251	0	0	309	19	12	0	0	31	680
Total	1221	234	0	0	1455	214	894	0	0	1108	60	46	0	0	106	2669
Approach %	83.9	16.1	0.0	-	-	19.3	80.7	0.0	-	-	56.6	43.4	0.0	-	-	-
Total %	45.7	8.8	0.0	-	54.5	8.0	33.5	0.0	-	41.5	2.2	1.7	0.0	-	4.0	-
PHF	0.893	0.873	0.000	-	0.938	0.775	0.890	0.000	-	0.896	0.789	0.885	0.000	-	0.855	0.960
Motorcycles	3	0	0	-	3	0	1	0	-	1	0	0	0	-	0	4
% Motorcycles	0.2	0.0	-	-	0.2	0.0	0.1	-	-	0.1	0.0	0.0	-	-	0.0	0.1
Cars & Light Goods	1170	230	0	-	1400	207	831	0	-	1038	51	39	0	-	90	2528
% Cars & Light Goods	95.8	98.3	-	-	96.2	96.7	93.0	-	-	93.7	85.0	84.8	-	-	84.9	94.7
Buses	7	0	0	-	7	0	3	0	-	3	2	0	0	-	2	12
% Buses	0.6	0.0	-	-	0.5	0.0	0.3	-	-	0.3	3.3	0.0	-	-	1.9	0.4
Single-Unit Trucks	20	1	0	-	21	4	35	0	-	39	3	5	0	-	8	68
% Single-Unit Trucks	1.6	0.4	-	-	1.4	1.9	3.9	-	-	3.5	5.0	10.9	-	-	7.5	2.5
Articulated Trucks	21	3	0	-	24	3	24	0	-	27	4	2	0	-	6	57
% Articulated Trucks	1.7	1.3	-	-	1.6	1.4	2.7	-	-	2.4	6.7	4.3	-	-	5.7	2.1
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
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	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: Green Lane E & Harry Walker Parkway
Site Code: 230671
Start Date: 05/14/2024



Turning Movement Peak Hour Data Plot (7:30 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Green Lane E & Harry Walker Parkway
Site Code: 230671
Start Date: 05/14/2024

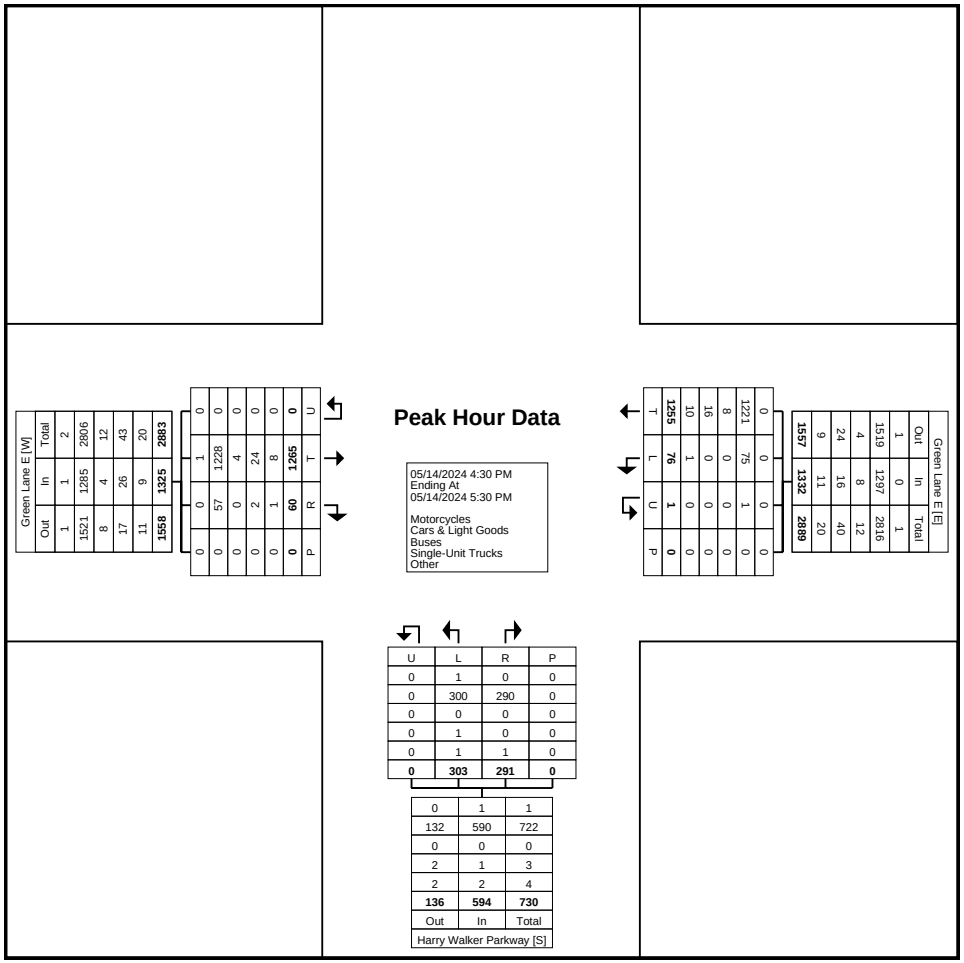
Turning Movement Peak Hour Data (4:30 PM)

Start Time	Green Lane E Eastbound					Green Lane E Westbound					Harry Walker Parkway Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
4:30 PM	313	17	0	0	330	20	323	1	0	344	84	97	0	0	181	855
4:45 PM	307	18	0	0	325	16	304	0	0	320	63	42	0	0	105	750
5:00 PM	320	14	0	0	334	22	306	0	0	328	99	100	0	0	199	861
5:15 PM	325	11	0	0	336	18	322	0	0	340	57	52	0	0	109	785
Total	1265	60	0	0	1325	76	1255	1	0	1332	303	291	0	0	594	3251
Approach %	95.5	4.5	0.0	-	-	5.7	94.2	0.1	-	-	51.0	49.0	0.0	-	-	-
Total %	38.9	1.8	0.0	-	40.8	2.3	38.6	0.0	-	41.0	9.3	9.0	0.0	-	18.3	-
PHF	0.973	0.833	0.000	-	0.986	0.864	0.971	0.250	-	0.968	0.765	0.728	0.000	-	0.746	0.944
Motorcycles	1	0	0	-	1	0	0	0	-	0	1	0	0	-	1	2
% Motorcycles	0.1	0.0	-	-	0.1	0.0	0.0	0.0	-	0.0	0.3	0.0	-	-	0.2	0.1
Cars & Light Goods	1228	57	0	-	1285	75	1221	1	-	1297	300	290	0	-	590	3172
% Cars & Light Goods	97.1	95.0	-	-	97.0	98.7	97.3	100.0	-	97.4	99.0	99.7	-	-	99.3	97.6
Buses	4	0	0	-	4	0	8	0	-	8	0	0	0	-	0	12
% Buses	0.3	0.0	-	-	0.3	0.0	0.6	0.0	-	0.6	0.0	0.0	-	-	0.0	0.4
Single-Unit Trucks	24	2	0	-	26	0	16	0	-	16	1	0	0	-	1	43
% Single-Unit Trucks	1.9	3.3	-	-	2.0	0.0	1.3	0.0	-	1.2	0.3	0.0	-	-	0.2	1.3
Articulated Trucks	8	1	0	-	9	1	10	0	-	11	1	1	0	-	2	22
% Articulated Trucks	0.6	1.7	-	-	0.7	1.3	0.8	0.0	-	0.8	0.3	0.3	-	-	0.3	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

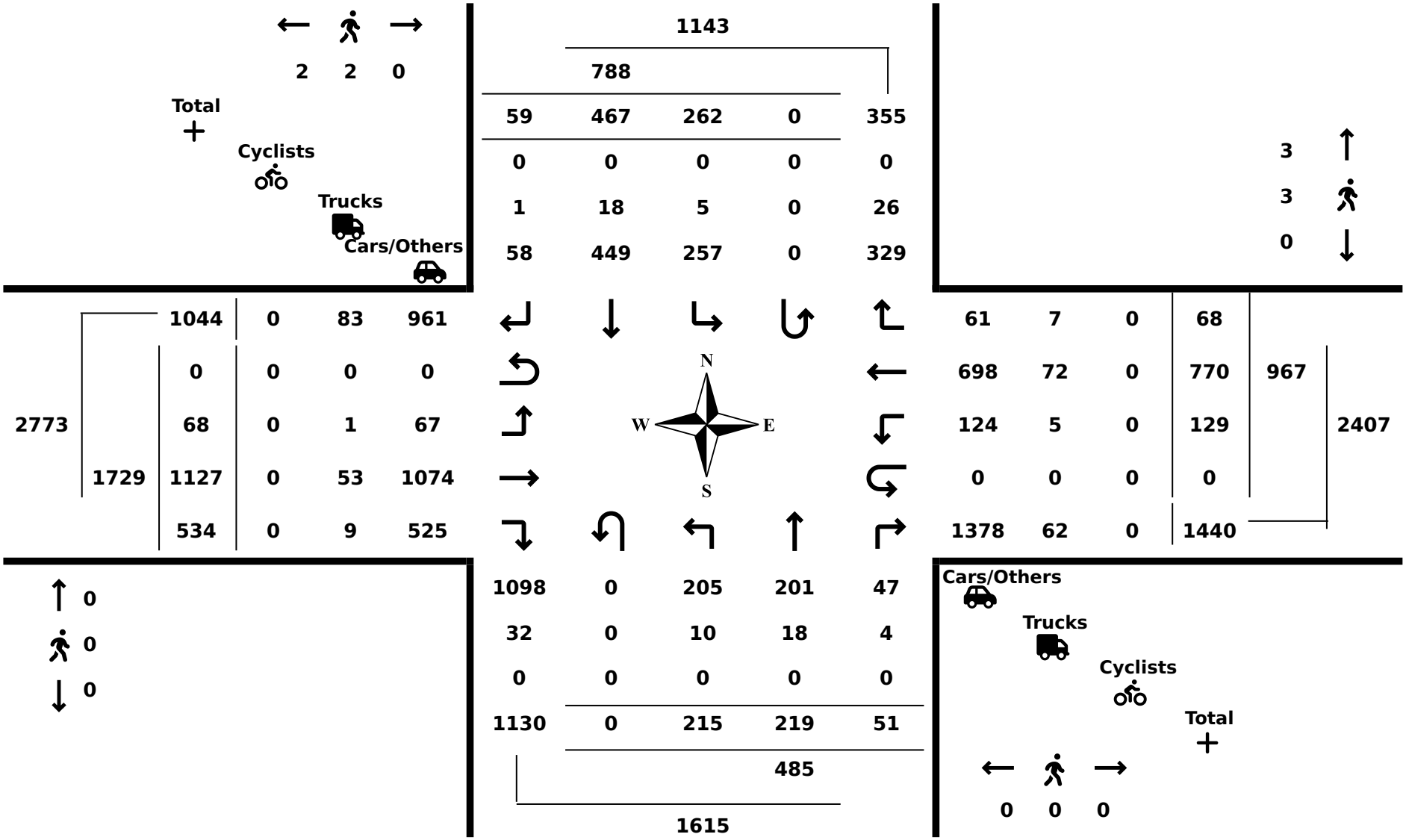
Count Name: Green Lane E & Harry Walker Parkway
Site Code: 230671
Start Date: 05/14/2024



Turning Movement Peak Hour Data Plot (4:30 PM)

Turning Movement Count Peak Hour Diagram

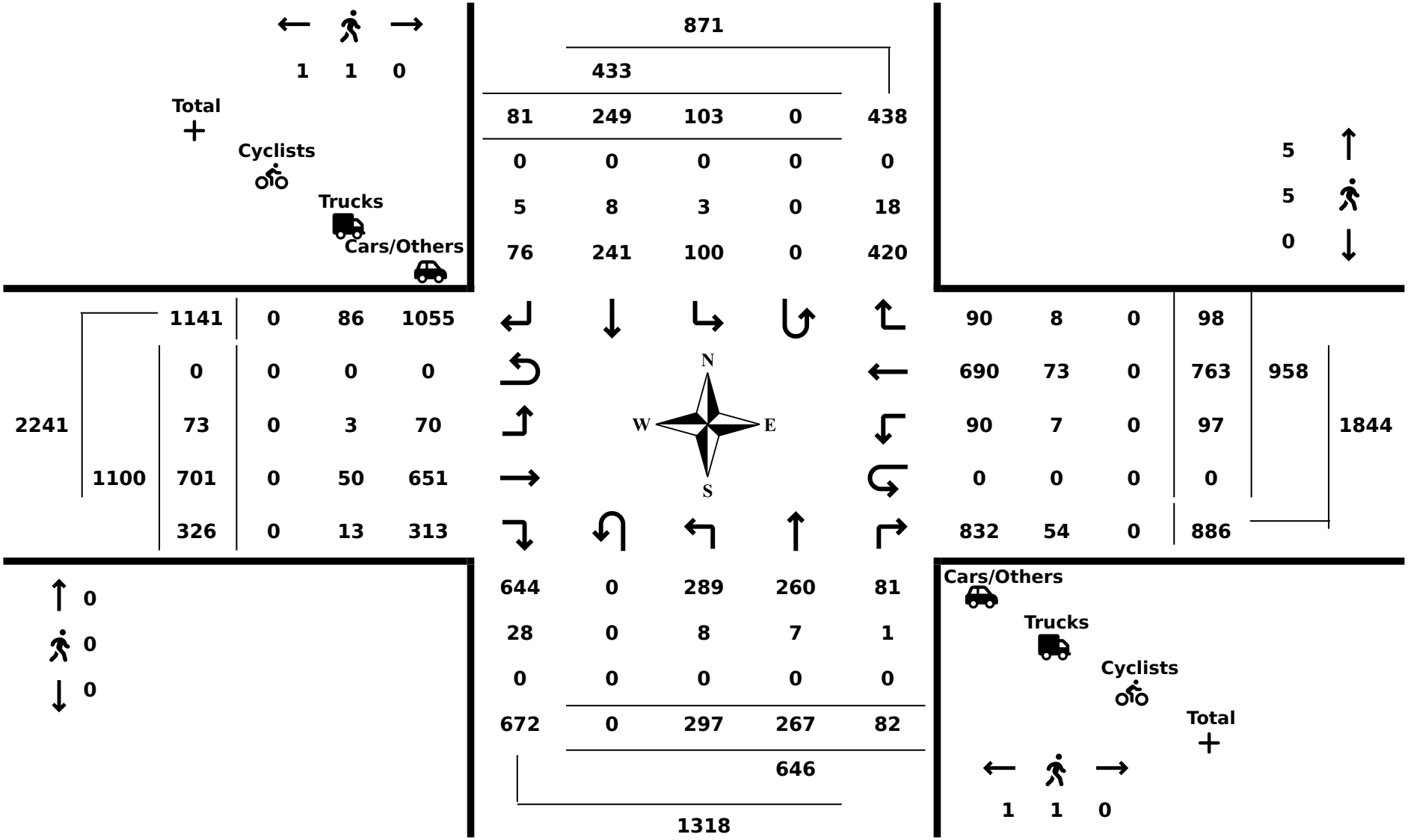
Location:	Leslie Street @ Green Lane East	**Municipality:**	
Jurisdiction:		**Start Date:** 10/18/2023 08:00:00	**End Date:** 10/18/2023 09:00:00



© York Region

TES www.tes.ca

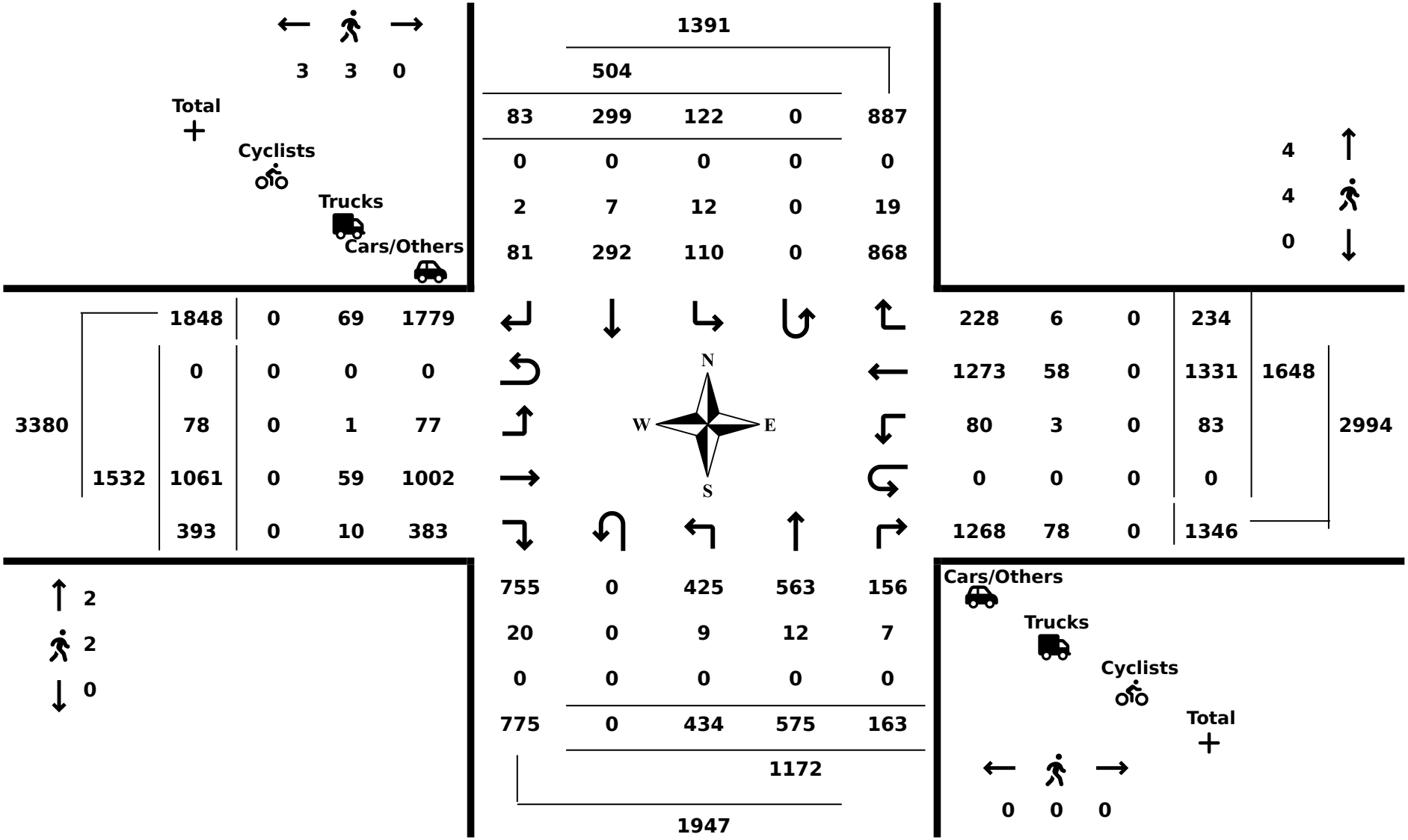
Location:	Leslie Street @ Green Lane East	**Municipality:**	
Jurisdiction:		**Start Date:** 10/18/2023 13:00:00	**End Date:** 10/18/2023 14:00:00



© York Region

TES www.tes.ca

Location:	Leslie Street @ Green Lane East	**Municipality:**	
Jurisdiction:		**Start Date:** 10/18/2023 16:00:00	**End Date:** 10/18/2023 17:00:00

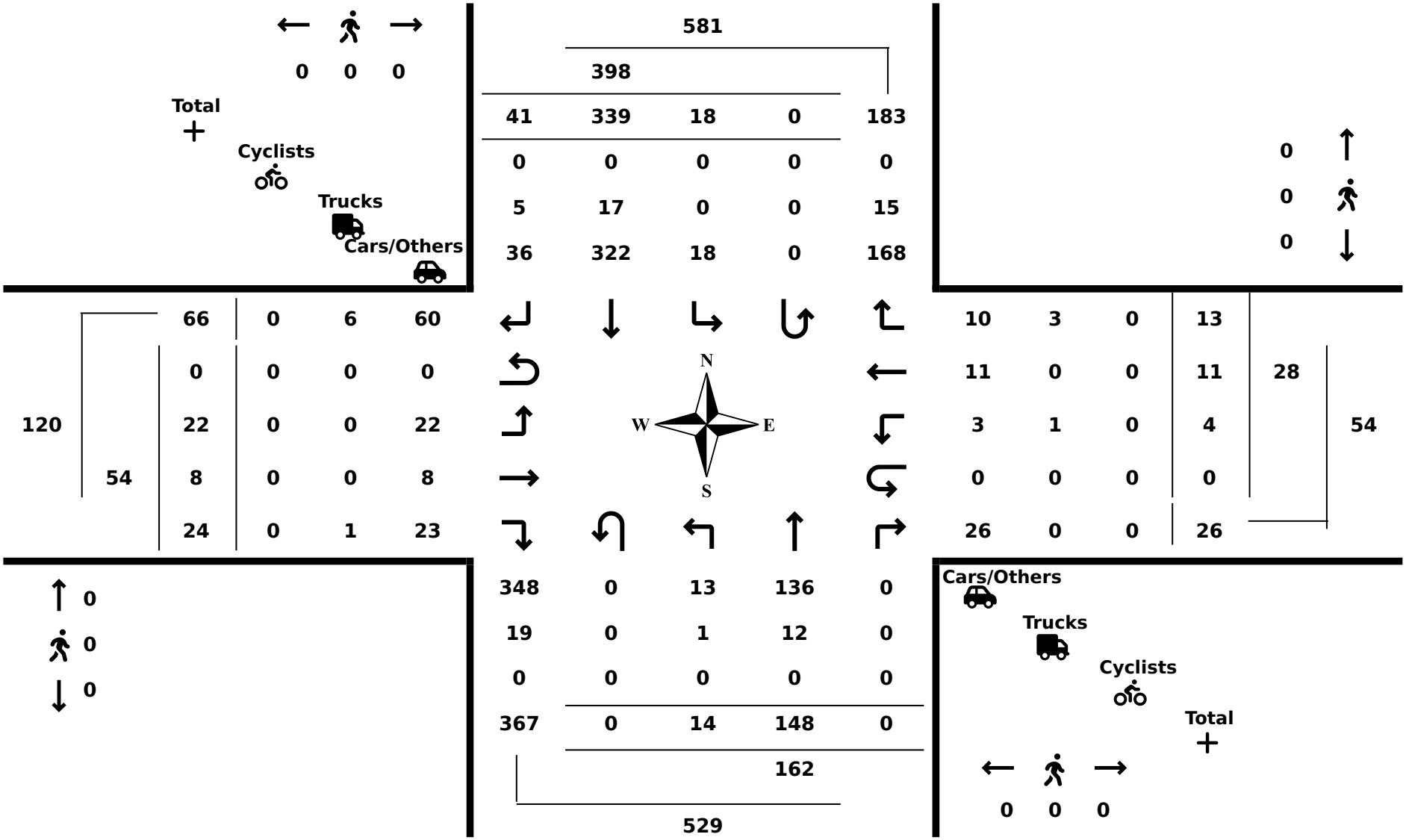


© York Region

TES www.tes.ca

Turning Movement Count Peak Hour Diagram

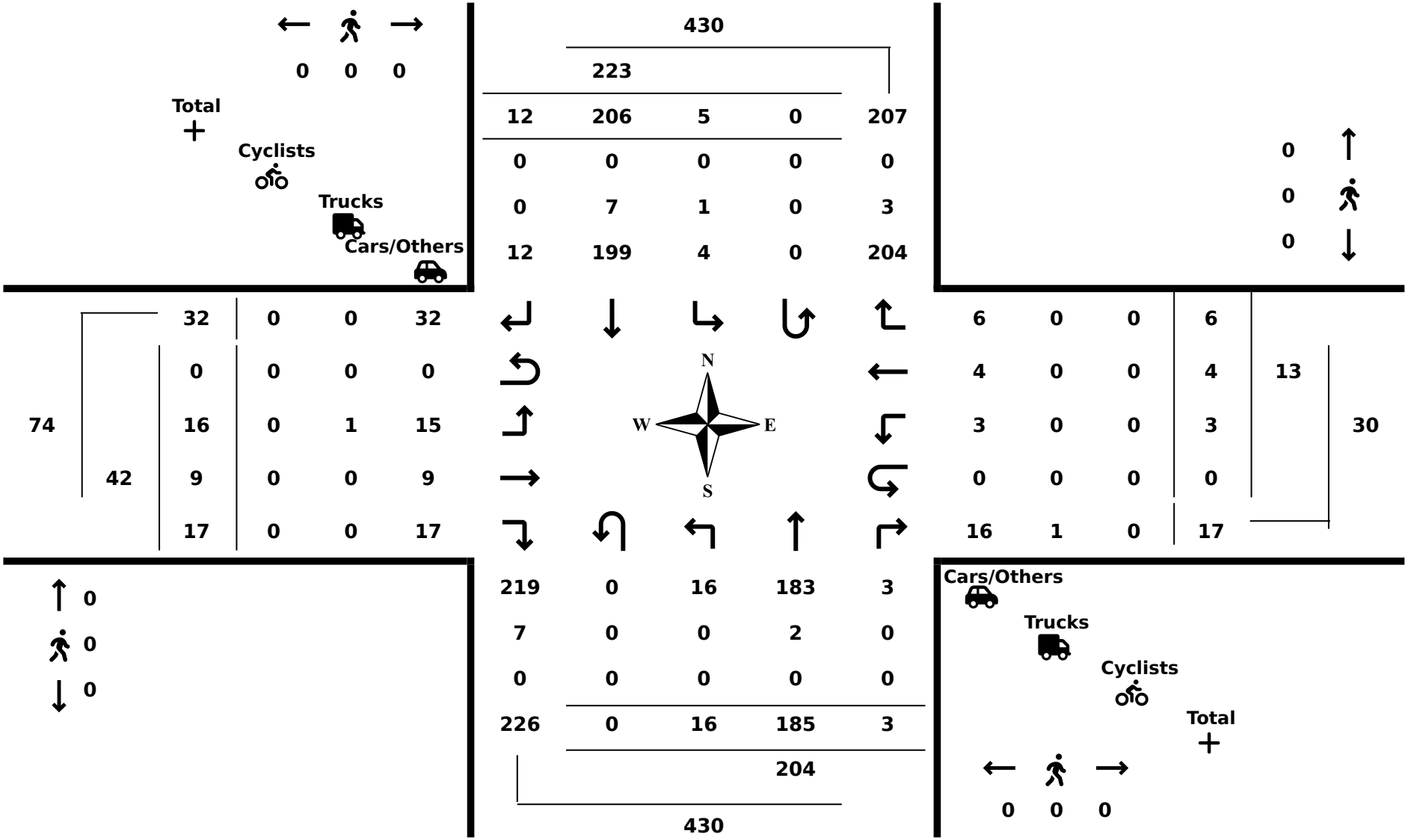
Location:	Leslie Street @ Jeffery Crescent/Doane Road	**Municipality:**	
Jurisdiction:		**Start Date:** 02/02/2023 08:00:00	**End Date:** 02/02/2023 09:00:00



© York Region

TES www.tes.ca

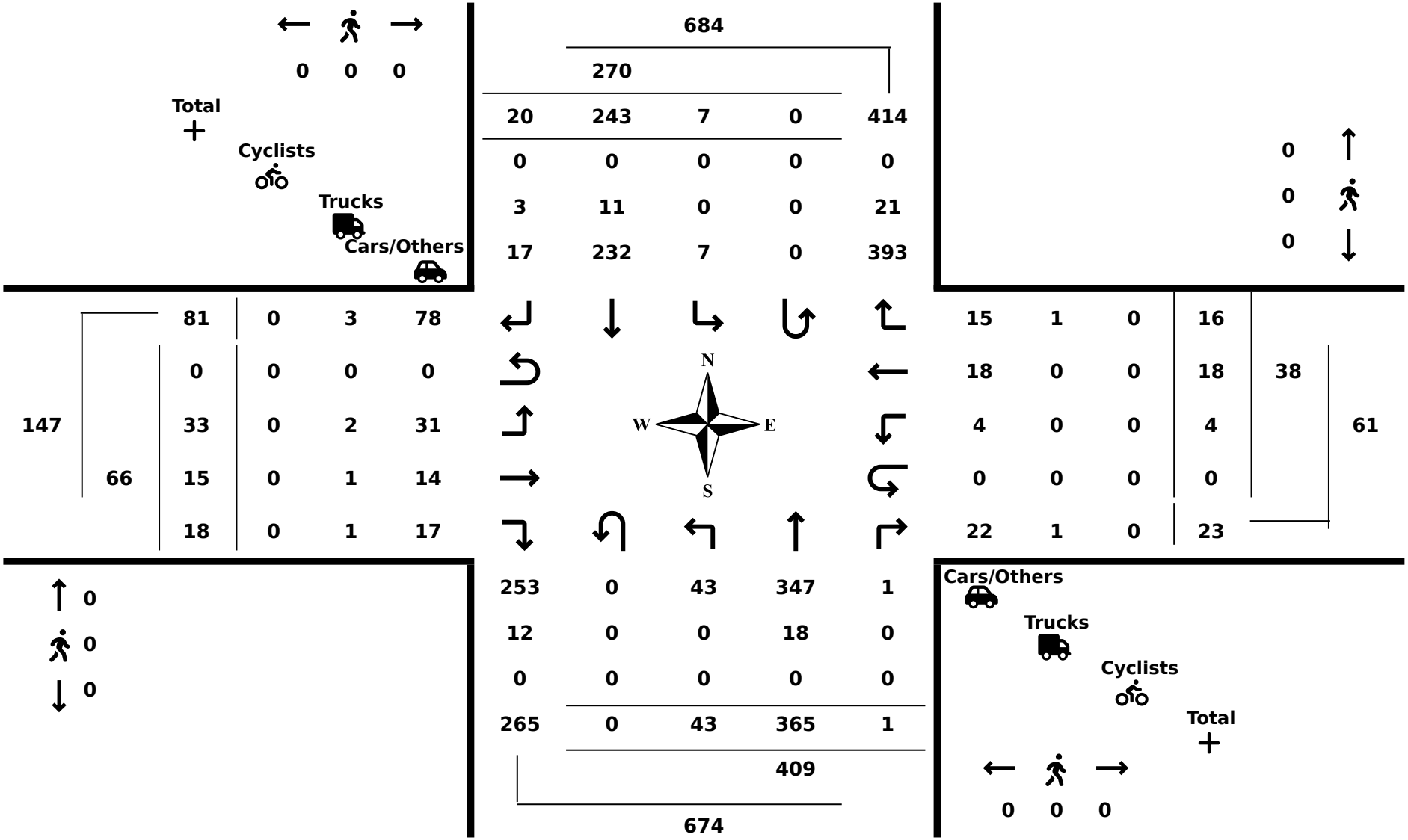
Location:	Leslie Street @ Jeffery Crescent/Doane Road	**Municipality:**	
Jurisdiction:	**Start Date:** 02/02/2023 12:00:00	**End Date:**	02/02/2023 13:00:00



© York Region

TES www.tes.ca

Location:	Leslie Street @ Jeffery Crescent/Doane Road	**Municipality:**	
Jurisdiction:		**Start Date:** 02/02/2023 15:15:00	**End Date:** 02/02/2023 16:15:00



© York Region

TES www.tes.ca

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Mt Albert & Leslie Street Farr Avenue
Site Code: 230671
Start Date: 05/14/2024

Turning Movement Data

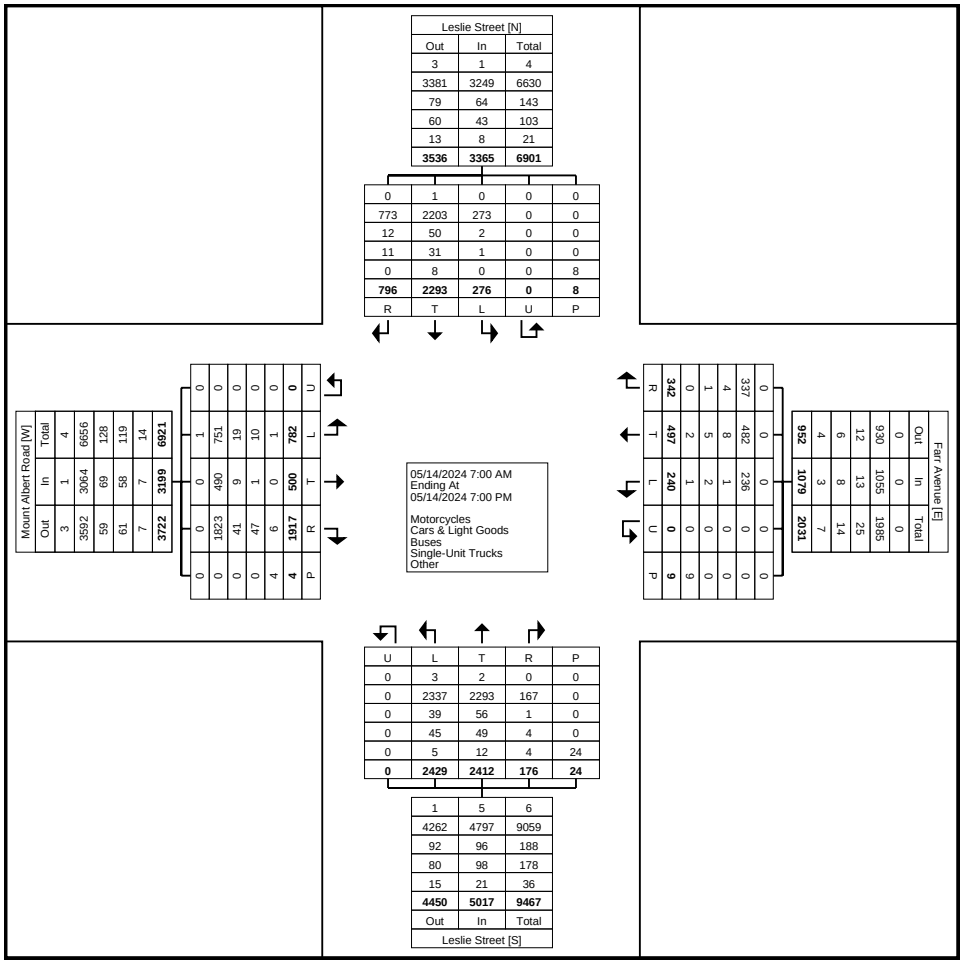
Start Time	Mount Albert Road Eastbound						Farr Avenue Westbound						Leslie Street Northbound						Leslie Street Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	6	4	53	0	0	63	4	4	2	0	0	10	10	30	1	0	0	41	0	63	17	0	0	80	194
7:15 AM	6	2	61	0	0	69	2	8	2	0	0	12	17	17	3	0	0	37	2	68	20	0	0	90	208
7:30 AM	10	7	89	0	0	106	1	4	2	0	0	7	28	27	1	0	0	56	5	61	12	0	0	78	247
7:45 AM	13	5	91	0	0	109	8	6	4	0	0	18	31	28	4	0	0	63	3	70	24	0	0	97	287
Hourly Total	35	18	294	0	0	347	15	22	10	0	0	47	86	102	9	0	0	197	10	262	73	0	0	345	936
8:00 AM	11	8	111	0	0	130	7	11	4	0	0	22	40	34	2	0	0	76	1	81	21	0	0	103	331
8:15 AM	15	5	85	0	0	105	3	6	3	0	0	12	47	31	3	0	0	81	9	87	27	0	0	123	321
8:30 AM	19	12	71	0	0	102	4	10	2	0	0	16	46	35	2	0	0	83	4	64	35	0	0	103	304
8:45 AM	23	14	75	0	0	112	9	17	9	0	0	35	38	49	1	0	0	88	3	59	36	0	0	98	333
Hourly Total	68	39	342	0	0	449	23	44	18	0	0	85	171	149	8	0	0	328	17	291	119	0	0	427	1289
9:00 AM	28	7	48	0	0	83	8	6	3	0	0	17	26	35	2	0	0	63	7	53	21	0	0	81	244
9:15 AM	9	5	47	0	0	61	5	8	5	0	0	18	33	41	3	0	0	77	5	57	12	0	0	74	230
9:30 AM	12	7	39	0	0	58	5	8	1	0	1	14	20	35	4	0	0	59	4	40	15	0	0	59	190
9:45 AM	14	12	29	0	0	55	3	3	2	0	0	8	30	37	2	0	1	69	5	36	12	0	0	53	185
Hourly Total	63	31	163	0	0	257	21	25	11	0	1	57	109	148	11	0	1	268	21	186	60	0	0	267	849
10:00 AM	16	5	33	0	0	54	10	5	4	0	0	19	28	28	3	0	0	59	11	58	18	0	0	87	219
10:15 AM	13	7	31	0	0	51	5	6	10	0	0	21	31	36	1	0	0	68	1	49	17	0	1	67	207
10:30 AM	10	7	27	0	0	44	9	3	1	0	0	13	27	37	3	0	0	67	2	50	14	0	0	66	190
10:45 AM	18	7	35	0	0	60	2	3	5	0	0	10	36	30	0	0	0	66	4	40	21	0	0	65	201
Hourly Total	57	26	126	0	0	209	26	17	20	0	0	63	122	131	7	0	0	260	18	197	70	0	1	285	817
11:00 AM	7	13	28	0	0	48	3	4	3	0	0	10	18	45	5	0	0	68	0	48	12	0	0	60	186
11:15 AM	8	0	26	0	0	34	5	10	2	0	0	17	34	37	3	0	0	74	5	38	16	0	0	59	184
11:30 AM	7	6	22	0	0	35	1	13	7	0	0	21	32	45	4	0	2	81	4	49	13	0	0	66	203
11:45 AM	11	15	20	0	0	46	3	11	8	0	0	22	27	40	4	0	1	71	4	50	8	0	0	62	201
Hourly Total	33	34	96	0	0	163	12	38	20	0	0	70	111	167	16	0	3	294	13	185	49	0	0	247	774
12:00 PM	12	12	33	0	1	57	7	5	5	0	0	17	34	52	2	0	1	88	6	46	16	0	0	68	230
12:15 PM	6	5	28	0	0	39	6	14	10	0	0	30	38	32	3	0	1	73	7	39	11	0	0	57	199
12:30 PM	19	11	35	0	0	65	7	10	6	0	0	23	38	38	5	0	0	81	5	40	11	0	1	56	225
12:45 PM	12	15	25	0	0	52	5	9	6	0	0	20	34	47	5	0	0	86	7	50	6	0	0	63	221
Hourly Total	49	43	121	0	1	213	25	38	27	0	0	90	144	169	15	0	2	328	25	175	44	0	1	244	875
1:00 PM	19	7	34	0	0	60	5	11	5	0	0	21	44	38	6	0	0	88	5	41	9	0	0	55	224
1:15 PM	12	5	37	0	0	54	3	3	5	0	4	11	46	46	2	0	0	94	5	46	20	0	4	71	230
1:30 PM	11	12	29	0	0	52	7	9	4	0	0	20	38	38	3	0	0	79	11	36	14	0	0	61	212
1:45 PM	13	15	18	0	0	46	6	9	8	0	0	23	42	45	5	0	0	92	6	45	9	0	0	60	221
Hourly Total	55	39	118	0	0	212	21	32	22	0	4	75	170	167	16	0	0	353	27	168	52	0	4	247	887

2:00 PM	6	8	28	0	0	42	9	9	5	0	0	23	31	44	4	0	1	79	5	44	5	0	0	54	198
2:15 PM	6	8	31	0	0	45	8	17	5	0	0	30	44	62	3	0	0	109	5	45	15	0	0	65	249
2:30 PM	19	10	27	0	0	56	0	14	15	0	0	29	49	58	6	0	1	113	11	37	19	0	0	67	265
2:45 PM	16	12	24	0	0	52	2	13	5	0	0	20	52	60	7	0	0	119	6	39	30	0	0	75	266
Hourly Total	47	38	110	0	0	195	19	53	30	0	0	102	176	224	20	0	2	420	27	165	69	0	0	261	978
3:00 PM	12	14	33	0	0	59	7	11	6	0	0	24	68	77	6	0	1	151	9	54	19	0	0	82	316
3:15 PM	30	11	28	0	0	69	3	15	15	0	0	33	80	77	4	0	0	161	2	48	29	0	0	79	342
3:30 PM	41	19	33	0	0	93	6	12	9	0	0	27	77	68	4	0	0	149	7	49	19	0	0	75	344
3:45 PM	25	7	34	0	0	66	8	8	11	0	0	27	92	79	6	0	1	177	3	39	17	0	0	59	329
Hourly Total	108	51	128	0	0	287	24	46	41	0	0	111	317	301	20	0	2	638	21	190	84	0	0	295	1331
4:00 PM	15	14	35	0	0	64	4	12	9	0	0	25	100	81	5	0	0	186	11	40	17	0	0	68	343
4:15 PM	26	21	44	0	0	91	2	21	11	0	0	34	115	86	2	0	2	203	9	44	13	0	0	66	394
4:30 PM	26	10	39	0	0	75	5	17	13	0	0	35	97	82	3	0	3	182	14	40	14	0	0	68	360
4:45 PM	19	20	35	0	0	74	9	17	9	0	0	35	117	85	9	0	0	211	7	38	14	0	0	59	379
Hourly Total	86	65	153	0	0	304	20	67	42	0	0	129	429	334	19	0	5	782	41	162	58	0	0	261	1476
5:00 PM	40	21	30	0	0	91	8	7	14	0	0	29	109	81	5	0	1	195	10	31	18	0	0	59	374
5:15 PM	19	18	35	0	2	72	3	22	11	0	0	36	119	81	14	0	3	214	6	48	18	0	0	72	394
5:30 PM	19	14	38	0	0	71	5	19	12	0	2	36	88	76	2	0	0	166	11	32	22	0	2	65	338
5:45 PM	24	17	38	0	0	79	5	14	13	0	1	32	70	64	3	0	3	137	6	40	14	0	0	60	308
Hourly Total	102	70	141	0	2	313	21	62	50	0	3	133	386	302	24	0	7	712	33	151	72	0	2	256	1414
6:00 PM	16	12	30	0	0	58	5	18	12	0	0	35	66	57	1	0	0	124	9	29	18	0	0	56	273
6:15 PM	27	13	29	0	1	69	7	14	17	0	0	38	49	54	4	0	1	107	4	42	14	0	0	60	274
6:30 PM	17	12	38	0	0	67	1	14	11	0	1	26	55	61	3	0	0	119	7	43	6	0	0	56	268
6:45 PM	19	9	28	0	0	56	0	7	11	0	0	18	38	46	3	0	1	87	3	47	8	0	0	58	219
Hourly Total	79	46	125	0	1	250	13	53	51	0	1	117	208	218	11	0	2	437	23	161	46	0	0	230	1034
Grand Total	782	500	1917	0	4	3199	240	497	342	0	9	1079	2429	2412	176	0	24	5017	276	2293	796	0	8	3365	12660
Approach %	24.4	15.6	59.9	0.0	-	-	22.2	46.1	31.7	0.0	-	-	48.4	48.1	3.5	0.0	-	-	8.2	68.1	23.7	0.0	-	-	-
Total %	6.2	3.9	15.1	0.0	-	25.3	1.9	3.9	2.7	0.0	-	8.5	19.2	19.1	1.4	0.0	-	39.6	2.2	18.1	6.3	0.0	-	26.6	-
Motorcycles	1	0	0	0	-	1	0	0	0	0	-	0	3	2	0	0	-	5	0	1	0	0	-	1	7
% Motorcycles	0.1	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.1	0.1	0.0	-	-	0.1	0.0	0.0	0.0	-	-	0.0	0.1
Cars & Light Goods	751	490	1823	0	-	3064	236	482	337	0	-	1055	2337	2293	167	0	-	4797	273	2203	773	0	-	3249	12165
% Cars & Light Goods	96.0	98.0	95.1	-	-	95.8	98.3	97.0	98.5	-	-	97.8	96.2	95.1	94.9	-	-	95.6	98.9	96.1	97.1	-	-	96.6	96.1
Buses	19	9	41	0	-	69	1	8	4	0	-	13	39	56	1	0	-	96	2	50	12	0	-	64	242
% Buses	2.4	1.8	2.1	-	-	2.2	0.4	1.6	1.2	-	-	1.2	1.6	2.3	0.6	-	-	1.9	0.7	2.2	1.5	-	-	1.9	1.9
Single-Unit Trucks	10	1	47	0	-	58	2	5	1	0	-	8	45	49	4	0	-	98	1	31	11	0	-	43	207
% Single-Unit Trucks	1.3	0.2	2.5	-	-	1.8	0.8	1.0	0.3	-	-	0.7	1.9	2.0	2.3	-	-	2.0	0.4	1.4	1.4	-	-	1.3	1.6
Articulated Trucks	1	0	6	0	-	7	1	1	0	0	-	2	5	10	4	0	-	19	0	8	0	0	-	8	36
% Articulated Trucks	0.1	0.0	0.3	-	-	0.2	0.4	0.2	0.0	-	-	0.2	0.2	0.4	2.3	-	-	0.4	0.0	0.3	0.0	-	-	0.2	0.3
Bicycles on Road	0	0	0	0	-	0	0	1	0	0	-	1	0	2	0	0	-	2	0	0	0	0	-	0	3
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.2	0.0	-	-	0.1	0.0	0.1	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	11.1	-	-	-	-	-	4.2	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	8	-	-	-	-	-	23	-	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	88.9	-	-	-	-	-	95.8	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Mt Albert & Leslie Street Farr Avenue
Site Code: 230671
Start Date: 05/14/2024



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: Mt Albert & Leslie Street Farr Avenue
Site Code: 230671
Start Date: 05/14/2024

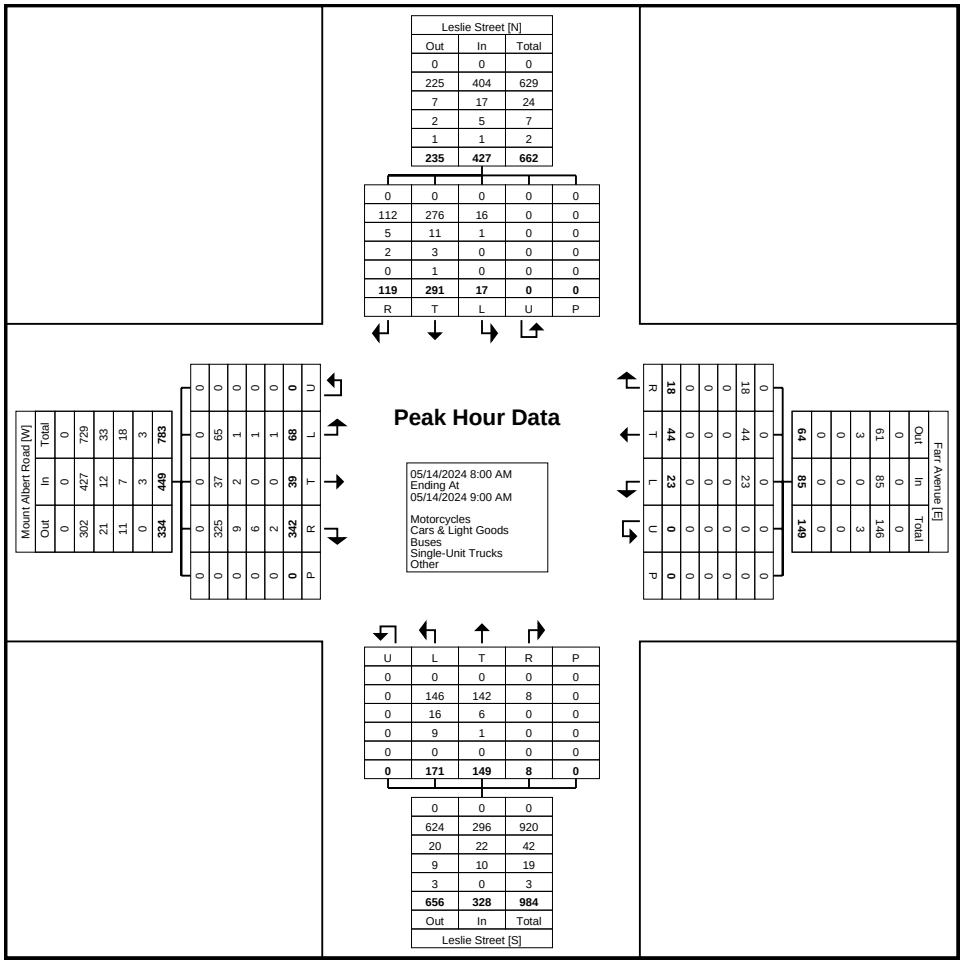
Turning Movement Peak Hour Data (8:00 AM)

Start Time	Mount Albert Road Eastbound						Farr Avenue Westbound						Leslie Street Northbound						Leslie 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
8:00 AM	11	8	111	0	0	130	7	11	4	0	0	22	40	34	2	0	0	76	1	81	21	0	0	103	331
8:15 AM	15	5	85	0	0	105	3	6	3	0	0	12	47	31	3	0	0	81	9	87	27	0	0	123	321
8:30 AM	19	12	71	0	0	102	4	10	2	0	0	16	46	35	2	0	0	83	4	64	35	0	0	103	304
8:45 AM	23	14	75	0	0	112	9	17	9	0	0	35	38	49	1	0	0	88	3	59	36	0	0	98	333
Total	68	39	342	0	0	449	23	44	18	0	0	85	171	149	8	0	0	328	17	291	119	0	0	427	1289
Approach %	15.1	8.7	76.2	0.0	-	-	27.1	51.8	21.2	0.0	-	-	52.1	45.4	2.4	0.0	-	-	4.0	68.1	27.9	0.0	-	-	-
Total %	5.3	3.0	26.5	0.0	-	34.8	1.8	3.4	1.4	0.0	-	6.6	13.3	11.6	0.6	0.0	-	25.4	1.3	22.6	9.2	0.0	-	33.1	-
PHF	0.739	0.696	0.770	0.000	-	0.863	0.639	0.647	0.500	0.000	-	0.607	0.910	0.760	0.667	0.000	-	0.932	0.472	0.836	0.826	0.000	-	0.868	0.968
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	65	37	325	0	-	427	23	44	18	0	-	85	146	142	8	0	-	296	16	276	112	0	-	404	1212
% Cars & Light Goods	95.6	94.9	95.0	-	-	95.1	100.0	100.0	100.0	-	-	100.0	85.4	95.3	100.0	-	-	90.2	94.1	94.8	94.1	-	-	94.6	94.0
Buses	1	2	9	0	-	12	0	0	0	0	-	0	16	6	0	0	-	22	1	11	5	0	-	17	51
% Buses	1.5	5.1	2.6	-	-	2.7	0.0	0.0	0.0	-	-	0.0	9.4	4.0	0.0	-	-	6.7	5.9	3.8	4.2	-	-	4.0	4.0
Single-Unit Trucks	1	0	6	0	-	7	0	0	0	0	-	0	9	1	0	0	-	10	0	3	2	0	-	5	22
% Single-Unit Trucks	1.5	0.0	1.8	-	-	1.6	0.0	0.0	0.0	-	-	0.0	5.3	0.7	0.0	-	-	3.0	0.0	1.0	1.7	-	-	1.2	1.7
Articulated Trucks	1	0	2	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	4
% Articulated Trucks	1.5	0.0	0.6	-	-	0.7	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.3	0.0	-	-	0.2	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
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: Mt Albert & Leslie Street Farr Avenue
Site Code: 230671
Start Date: 05/14/2024



Turning Movement Peak Hour Data Plot (8:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Mt Albert & Leslie Street Farr Avenue
Site Code: 230671
Start Date: 05/14/2024

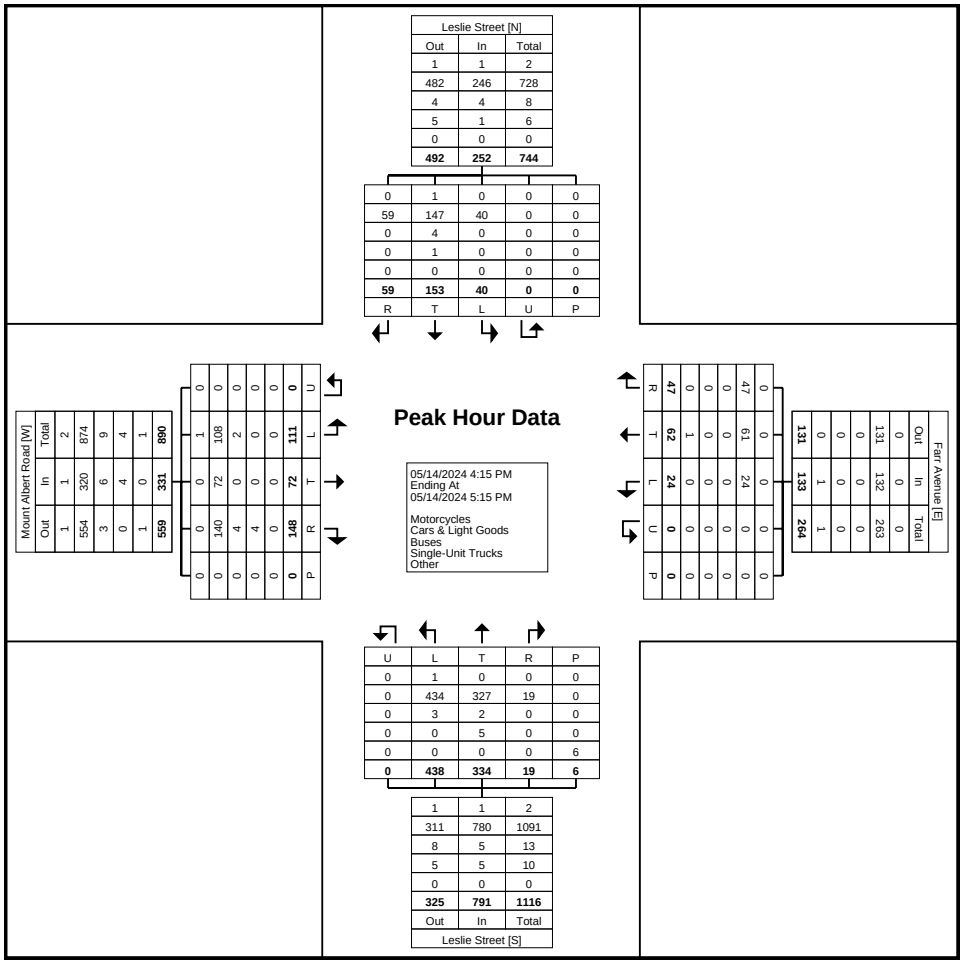
Turning Movement Peak Hour Data (4:15 PM)

Start Time	Mount Albert Road Eastbound						Farr Avenue Westbound						Leslie Street Northbound						Leslie 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	26	21	44	0	0	91	2	21	11	0	0	34	115	86	2	0	2	203	9	44	13	0	0	66	394
4:30 PM	26	10	39	0	0	75	5	17	13	0	0	35	97	82	3	0	3	182	14	40	14	0	0	68	360
4:45 PM	19	20	35	0	0	74	9	17	9	0	0	35	117	85	9	0	0	211	7	38	14	0	0	59	379
5:00 PM	40	21	30	0	0	91	8	7	14	0	0	29	109	81	5	0	1	195	10	31	18	0	0	59	374
Total	111	72	148	0	0	331	24	62	47	0	0	133	438	334	19	0	6	791	40	153	59	0	0	252	1507
Approach %	33.5	21.8	44.7	0.0	-	-	18.0	46.6	35.3	0.0	-	-	55.4	42.2	2.4	0.0	-	-	15.9	60.7	23.4	0.0	-	-	-
Total %	7.4	4.8	9.8	0.0	-	22.0	1.6	4.1	3.1	0.0	-	8.8	29.1	22.2	1.3	0.0	-	52.5	2.7	10.2	3.9	0.0	-	16.7	-
PHF	0.694	0.857	0.841	0.000	-	0.909	0.667	0.738	0.839	0.000	-	0.950	0.936	0.971	0.528	0.000	-	0.937	0.714	0.869	0.819	0.000	-	0.926	0.956
Motorcycles	1	0	0	0	-	1	0	0	0	0	-	0	1	0	0	0	-	1	0	1	0	0	-	1	3
% Motorcycles	0.9	0.0	0.0	-	-	0.3	0.0	0.0	0.0	-	-	0.0	0.2	0.0	0.0	-	-	0.1	0.0	0.7	0.0	-	-	0.4	0.2
Cars & Light Goods	108	72	140	0	-	320	24	61	47	0	-	132	434	327	19	0	-	780	40	147	59	0	-	246	1478
% Cars & Light Goods	97.3	100.0	94.6	-	-	96.7	100.0	98.4	100.0	-	-	99.2	99.1	97.9	100.0	-	-	98.6	100.0	96.1	100.0	-	-	97.6	98.1
Buses	2	0	4	0	-	6	0	0	0	0	-	0	3	2	0	0	-	5	0	4	0	0	-	4	15
% Buses	1.8	0.0	2.7	-	-	1.8	0.0	0.0	0.0	-	-	0.0	0.7	0.6	0.0	-	-	0.6	0.0	2.6	0.0	-	-	1.6	1.0
Single-Unit Trucks	0	0	4	0	-	4	0	0	0	0	-	0	0	5	0	0	-	5	0	1	0	0	-	1	10
% Single-Unit Trucks	0.0	0.0	2.7	-	-	1.2	0.0	0.0	0.0	-	-	0.0	0.0	1.5	0.0	-	-	0.6	0.0	0.7	0.0	-	-	0.4	0.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	1	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	0.0	1.6	0.0	-	-	0.8	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.1
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Mt Albert & Leslie Street Farr Avenue
Site Code: 230671
Start Date: 05/14/2024



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: Mt Albert Road & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024

Turning Movement Data

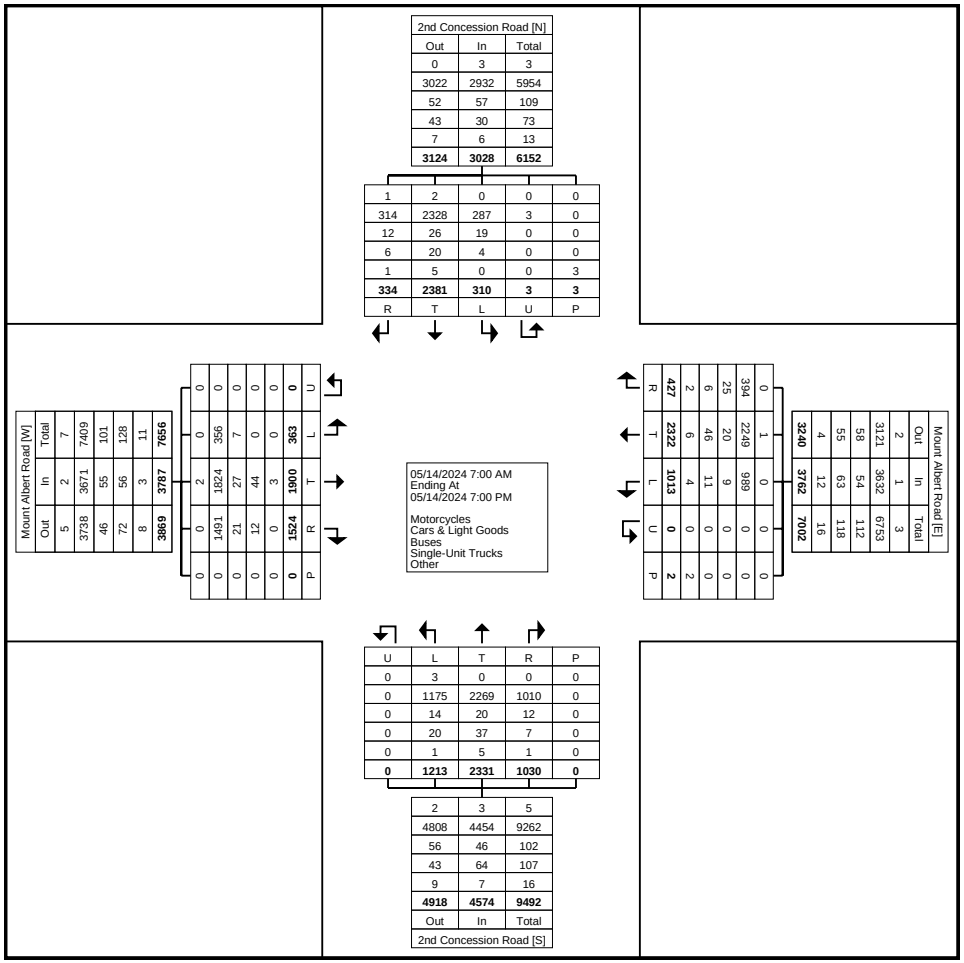
Start Time	Mount Albert Road Eastbound						Mount Albert Road Westbound						2nd Concession Road Northbound						2nd Concession Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	0	51	47	0	0	98	19	15	1	0	0	35	2	15	5	0	0	22	5	69	1	1	0	76	231
7:15 AM	6	51	51	0	0	108	37	19	3	0	0	59	3	21	8	0	0	32	8	86	1	0	0	95	294
7:30 AM	7	85	40	0	0	132	27	33	5	0	0	65	12	35	10	0	0	57	11	77	7	0	0	95	349
7:45 AM	8	69	47	0	0	124	32	28	4	0	0	64	12	33	26	0	0	71	11	78	6	0	0	95	354
Hourly Total	21	256	185	0	0	462	115	95	13	0	0	223	29	104	49	0	0	182	35	310	15	1	0	361	1228
8:00 AM	8	77	45	0	0	130	25	33	14	0	0	72	15	48	19	0	0	82	21	97	14	0	0	132	416
8:15 AM	12	65	61	0	0	138	34	38	10	0	0	82	26	40	21	0	0	87	16	83	13	0	0	112	419
8:30 AM	4	71	66	0	0	141	31	39	5	0	0	75	26	43	12	0	0	81	15	84	9	0	0	108	405
8:45 AM	21	61	88	0	0	170	23	49	12	0	0	84	34	52	30	0	0	116	6	110	19	0	0	135	505
Hourly Total	45	274	260	0	0	579	113	159	41	0	0	313	101	183	82	0	0	366	58	374	55	0	0	487	1745
9:00 AM	19	53	38	0	0	110	31	25	3	0	0	59	37	46	24	0	0	107	7	45	10	0	1	62	338
9:15 AM	6	38	42	0	0	86	20	30	4	0	0	54	20	38	9	0	0	67	8	40	8	1	0	57	264
9:30 AM	8	37	35	0	0	80	19	26	4	0	0	49	16	31	14	0	0	61	3	60	9	0	0	72	262
9:45 AM	4	38	20	0	0	62	13	25	8	0	0	46	17	31	18	0	0	66	4	46	3	0	0	53	227
Hourly Total	37	166	135	0	0	338	83	106	19	0	0	208	90	146	65	0	0	301	22	191	30	1	1	244	1091
10:00 AM	10	32	22	0	0	64	15	26	4	0	0	45	15	24	19	0	0	58	6	44	6	0	0	56	223
10:15 AM	4	33	19	0	0	56	24	37	3	0	0	64	19	41	12	0	0	72	0	49	7	0	0	56	248
10:30 AM	4	34	23	0	0	61	14	31	4	0	0	49	11	27	7	0	0	45	5	42	1	0	0	48	203
10:45 AM	4	31	24	0	0	59	20	30	4	0	0	54	16	28	15	0	0	59	6	31	5	0	0	42	214
Hourly Total	22	130	88	0	0	240	73	124	15	0	0	212	61	120	53	0	0	234	17	166	19	0	0	202	888
11:00 AM	5	30	31	0	0	66	20	25	2	0	0	47	27	31	19	0	0	77	4	39	4	0	0	47	237
11:15 AM	3	11	26	0	0	40	22	34	2	0	0	58	9	27	11	0	0	47	7	35	3	0	1	45	190
11:30 AM	3	21	27	0	0	51	19	32	8	0	0	59	15	27	16	0	0	58	1	39	4	0	0	44	212
11:45 AM	6	28	17	0	0	51	10	28	5	0	0	43	19	29	20	0	0	68	0	25	7	0	0	32	194
Hourly Total	17	90	101	0	0	208	71	119	17	0	0	207	70	114	66	0	0	250	12	138	18	0	1	168	833
12:00 PM	9	27	26	0	0	62	22	20	7	0	0	49	18	26	18	0	0	62	6	41	5	0	0	52	225
12:15 PM	4	29	21	0	0	54	19	37	11	0	0	67	16	32	10	0	0	58	5	38	4	0	0	47	226
12:30 PM	5	35	27	0	0	67	16	43	4	0	0	63	16	38	16	0	0	70	5	35	6	0	1	46	246
12:45 PM	3	41	28	0	0	72	14	34	5	0	0	53	22	45	19	0	0	86	5	41	5	0	0	51	262
Hourly Total	21	132	102	0	0	255	71	134	27	0	0	232	72	141	63	0	0	276	21	155	20	0	1	196	959
1:00 PM	6	21	28	0	0	55	13	52	8	0	0	73	26	39	19	0	0	84	3	42	5	0	0	50	262
1:15 PM	5	37	20	0	0	62	18	42	8	0	0	68	22	42	15	0	0	79	5	36	4	0	0	45	254
1:30 PM	8	33	36	0	0	77	17	37	3	0	0	57	20	31	14	0	0	65	4	40	2	0	0	46	245
1:45 PM	5	24	25	0	0	54	18	38	3	0	0	59	23	38	26	0	0	87	3	35	2	0	0	40	240
Hourly Total	24	115	109	0	0	248	66	169	22	0	0	257	91	150	74	0	0	315	15	153	13	0	0	181	1001

2:00 PM	3	25	22	0	0	50	12	35	5	0	0	52	18	31	10	0	0	59	9	27	4	0	0	40	201
2:15 PM	2	28	27	0	0	57	16	41	8	0	0	65	33	41	21	0	0	95	5	51	9	0	0	65	282
2:30 PM	7	33	21	0	0	61	24	40	25	0	0	89	19	43	16	0	0	78	3	35	7	0	0	45	273
2:45 PM	7	34	25	0	0	66	22	68	7	0	0	97	33	42	22	0	0	97	10	42	12	0	0	64	324
Hourly Total	19	120	95	0	0	234	74	184	45	0	0	303	103	157	69	0	0	329	27	155	32	0	0	214	1080
3:00 PM	6	37	29	0	0	72	24	66	15	0	0	105	36	52	23	0	0	111	7	47	11	0	0	65	353
3:15 PM	9	30	51	0	0	90	27	76	17	0	1	120	46	74	30	0	0	150	6	57	23	0	0	86	446
3:30 PM	24	51	37	0	0	112	18	70	10	0	0	98	50	80	32	0	0	162	8	51	7	0	0	66	438
3:45 PM	11	41	23	0	0	75	20	91	17	0	0	128	31	64	16	0	0	111	8	40	7	0	0	55	369
Hourly Total	50	159	140	0	0	349	89	303	59	0	1	451	163	270	101	0	0	534	29	195	48	0	0	272	1606
4:00 PM	7	40	25	0	0	72	16	74	14	0	0	104	48	100	39	0	0	187	3	43	4	0	0	50	413
4:15 PM	10	55	35	0	0	100	29	120	16	0	0	165	38	74	26	0	0	138	3	41	2	0	0	46	449
4:30 PM	15	41	20	0	0	76	21	87	15	0	0	123	27	63	31	0	0	121	8	56	9	0	0	73	393
4:45 PM	11	44	26	0	0	81	24	100	14	0	0	138	41	91	26	0	0	158	11	63	9	0	0	83	460
Hourly Total	43	180	106	0	0	329	90	381	59	0	0	530	154	328	122	0	0	604	25	203	24	0	0	252	1715
5:00 PM	5	36	32	0	0	73	24	88	14	0	0	126	37	105	55	0	0	197	11	62	9	0	0	82	478
5:15 PM	6	32	26	0	0	64	30	113	21	0	0	164	30	66	31	0	0	127	6	55	18	0	0	79	434
5:30 PM	10	38	30	0	0	78	27	83	16	0	0	126	36	64	24	0	0	124	6	44	9	0	0	59	387
5:45 PM	9	41	26	0	0	76	20	63	14	0	0	97	43	80	44	0	0	167	5	40	5	0	0	50	390
Hourly Total	30	147	114	0	0	291	101	347	65	0	0	513	146	315	154	0	0	615	28	201	41	0	0	270	1689
6:00 PM	10	26	19	0	0	55	26	56	17	0	1	99	32	83	36	0	0	151	6	32	6	0	0	44	349
6:15 PM	10	35	29	0	0	74	17	57	9	0	0	83	40	75	45	0	0	160	0	36	6	0	0	42	359
6:30 PM	6	42	20	0	0	68	13	59	13	0	0	85	33	81	26	0	0	140	10	39	0	0	0	49	342
6:45 PM	8	28	21	0	0	57	11	29	6	0	0	46	28	64	25	0	0	117	5	33	7	1	0	46	266
Hourly Total	34	131	89	0	0	254	67	201	45	0	1	313	133	303	132	0	0	568	21	140	19	1	0	181	1316
Grand Total	363	1900	1524	0	0	3787	1013	2322	427	0	2	3762	1213	2331	1030	0	0	4574	310	2381	334	3	3	3028	15151
Approach %	9.6	50.2	40.2	0.0	-	-	26.9	61.7	11.4	0.0	-	-	26.5	51.0	22.5	0.0	-	-	10.2	78.6	11.0	0.1	-	-	-
Total %	2.4	12.5	10.1	0.0	-	25.0	6.7	15.3	2.8	0.0	-	24.8	8.0	15.4	6.8	0.0	-	30.2	2.0	15.7	2.2	0.0	-	20.0	-
Motorcycles	0	2	0	0	-	2	0	1	0	0	-	1	3	0	0	0	-	3	0	2	1	0	-	3	9
% Motorcycles	0.0	0.1	0.0	-	-	0.1	0.0	0.0	0.0	-	-	0.0	0.2	0.0	0.0	-	-	0.1	0.0	0.1	0.3	0.0	-	0.1	0.1
Cars & Light Goods	356	1824	1491	0	-	3671	989	2249	394	0	-	3632	1175	2269	1010	0	-	4454	287	2328	314	3	-	2932	14689
% Cars & Light Goods	98.1	96.0	97.8	-	-	96.9	97.6	96.9	92.3	-	-	96.5	96.9	97.3	98.1	-	-	97.4	92.6	97.8	94.0	100.0	-	96.8	97.0
Buses	7	27	21	0	-	55	9	20	25	0	-	54	14	20	12	0	-	46	19	26	12	0	-	57	212
% Buses	1.9	1.4	1.4	-	-	1.5	0.9	0.9	5.9	-	-	1.4	1.2	0.9	1.2	-	-	1.0	6.1	1.1	3.6	0.0	-	1.9	1.4
Single-Unit Trucks	0	44	12	0	-	56	11	46	6	0	-	63	20	37	7	0	-	64	4	20	6	0	-	30	213
% Single-Unit Trucks	0.0	2.3	0.8	-	-	1.5	1.1	2.0	1.4	-	-	1.7	1.6	1.6	0.7	-	-	1.4	1.3	0.8	1.8	0.0	-	1.0	1.4
Articulated Trucks	0	3	0	0	-	3	3	6	1	0	-	10	1	3	1	0	-	5	0	4	0	0	-	4	22
% Articulated Trucks	0.0	0.2	0.0	-	-	0.1	0.3	0.3	0.2	-	-	0.3	0.1	0.1	0.1	-	-	0.1	0.0	0.2	0.0	0.0	-	0.1	0.1
Bicycles on Road	0	0	0	0	-	0	1	0	1	0	-	2	0	2	0	0	-	2	0	1	1	0	-	2	6
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.1	0.0	0.2	-	-	0.1	0.0	0.1	0.0	-	-	0.0	0.0	0.0	0.3	0.0	-	0.1	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	50.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	50.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Mt Albert Road & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024



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: Mt Albert Road & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024

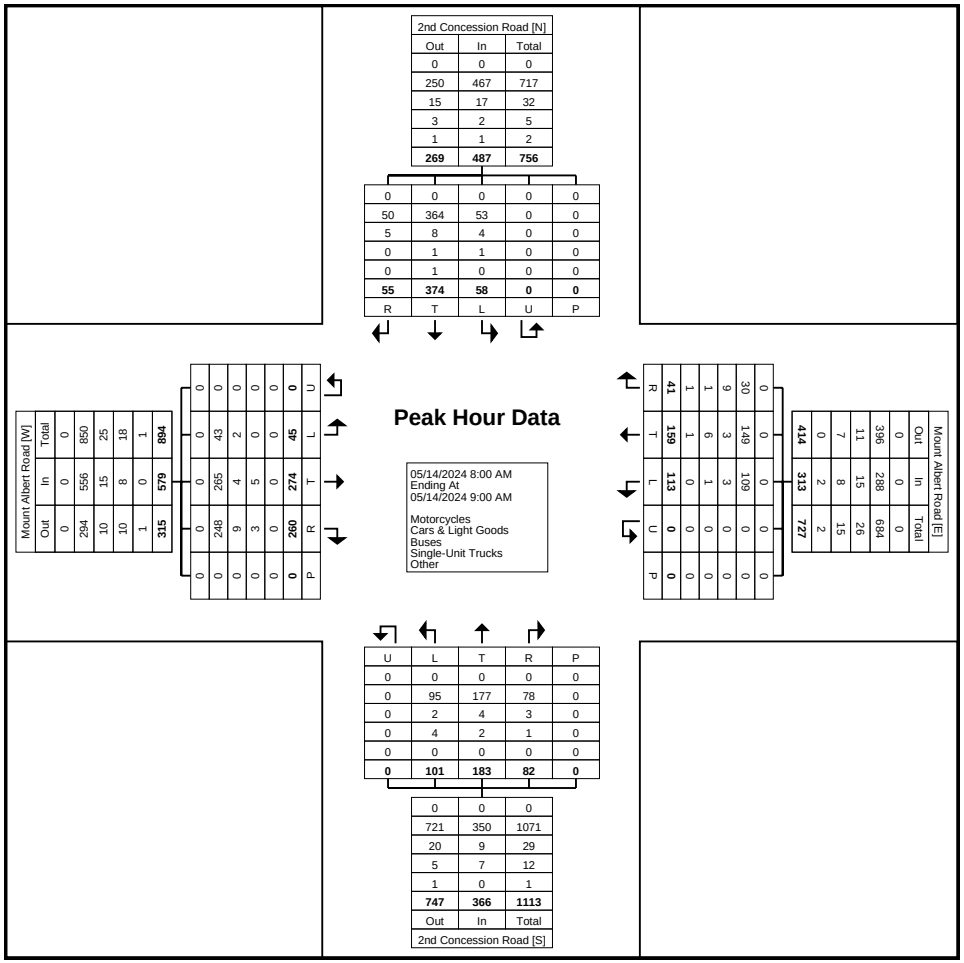
Turning Movement Peak Hour Data (8:00 AM)

Start Time	Mount Albert Road Eastbound						Mount Albert Road Westbound						2nd Concession Road Northbound						2nd Concession 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	
8:00 AM	8	77	45	0	0	130	25	33	14	0	0	72	15	48	19	0	0	82	21	97	14	0	0	132	416
8:15 AM	12	65	61	0	0	138	34	38	10	0	0	82	26	40	21	0	0	87	16	83	13	0	0	112	419
8:30 AM	4	71	66	0	0	141	31	39	5	0	0	75	26	43	12	0	0	81	15	84	9	0	0	108	405
8:45 AM	21	61	88	0	0	170	23	49	12	0	0	84	34	52	30	0	0	116	6	110	19	0	0	135	505
Total	45	274	260	0	0	579	113	159	41	0	0	313	101	183	82	0	0	366	58	374	55	0	0	487	1745
Approach %	7.8	47.3	44.9	0.0	-	-	36.1	50.8	13.1	0.0	-	-	27.6	50.0	22.4	0.0	-	-	11.9	76.8	11.3	0.0	-	-	-
Total %	2.6	15.7	14.9	0.0	-	33.2	6.5	9.1	2.3	0.0	-	17.9	5.8	10.5	4.7	0.0	-	21.0	3.3	21.4	3.2	0.0	-	27.9	-
PHF	0.536	0.890	0.739	0.000	-	0.851	0.831	0.811	0.732	0.000	-	0.932	0.743	0.880	0.683	0.000	-	0.789	0.690	0.850	0.724	0.000	-	0.902	0.864
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	43	265	248	0	-	556	109	149	30	0	-	288	95	177	78	0	-	350	53	364	50	0	-	467	1661
% Cars & Light Goods	95.6	96.7	95.4	-	-	96.0	96.5	93.7	73.2	-	-	92.0	94.1	96.7	95.1	-	-	95.6	91.4	97.3	90.9	-	-	95.9	95.2
Buses	2	4	9	0	-	15	3	3	9	0	-	15	2	4	3	0	-	9	4	8	5	0	-	17	56
% Buses	4.4	1.5	3.5	-	-	2.6	2.7	1.9	22.0	-	-	4.8	2.0	2.2	3.7	-	-	2.5	6.9	2.1	9.1	-	-	3.5	3.2
Single-Unit Trucks	0	5	3	0	-	8	1	6	1	0	-	8	4	2	1	0	-	7	1	1	0	0	-	2	25
% Single-Unit Trucks	0.0	1.8	1.2	-	-	1.4	0.9	3.8	2.4	-	-	2.6	4.0	1.1	1.2	-	-	1.9	1.7	0.3	0.0	-	-	0.4	1.4
Articulated Trucks	0	0	0	0	-	0	0	1	1	0	-	2	0	0	0	0	-	0	0	1	0	0	-	1	3
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.6	2.4	-	-	0.6	0.0	0.0	0.0	-	-	0.0	0.0	0.3	0.0	-	-	0.2	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
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: Mt Albert Road & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024



Turning Movement Peak Hour Data Plot (8:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Mt Albert Road & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024

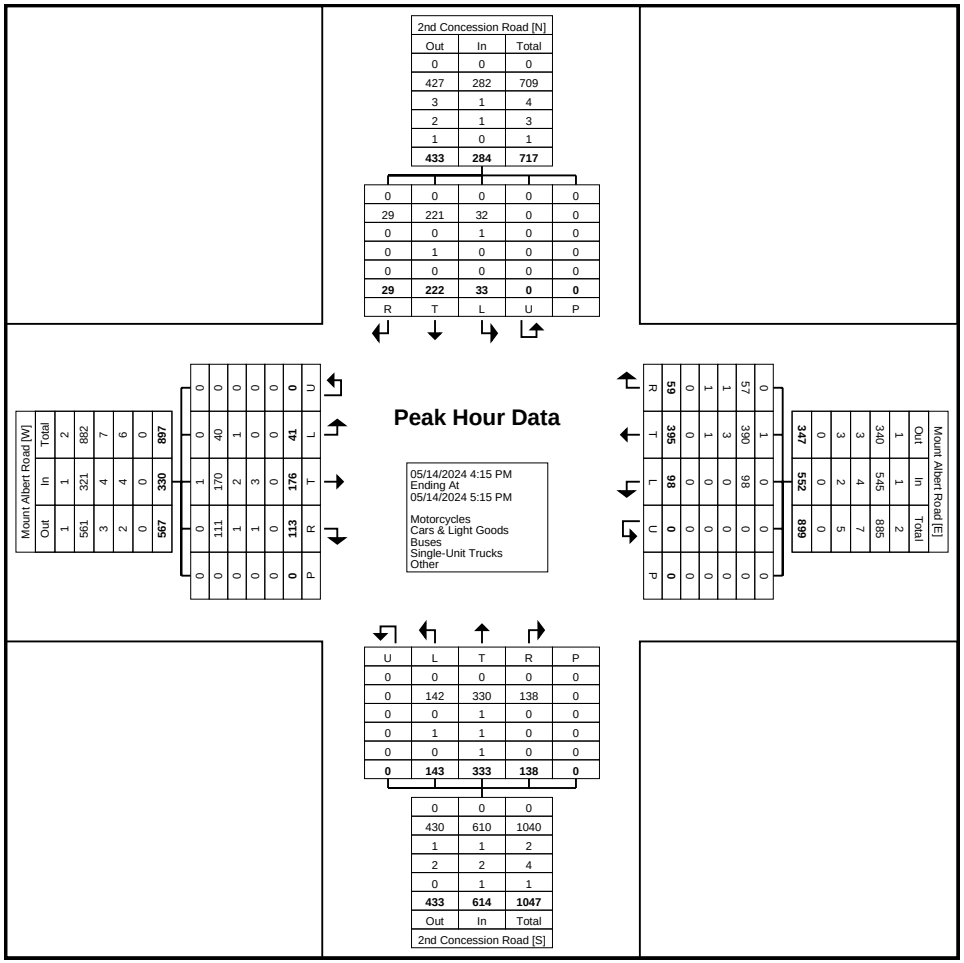
Turning Movement Peak Hour Data (4:15 PM)

Start Time	Mount Albert Road Eastbound						Mount Albert Road Westbound						2nd Concession Road Northbound						2nd Concession 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	
4:15 PM	10	55	35	0	0	100	29	120	16	0	0	165	38	74	26	0	0	138	3	41	2	0	0	46	449
4:30 PM	15	41	20	0	0	76	21	87	15	0	0	123	27	63	31	0	0	121	8	56	9	0	0	73	393
4:45 PM	11	44	26	0	0	81	24	100	14	0	0	138	41	91	26	0	0	158	11	63	9	0	0	83	460
5:00 PM	5	36	32	0	0	73	24	88	14	0	0	126	37	105	55	0	0	197	11	62	9	0	0	82	478
Total	41	176	113	0	0	330	98	395	59	0	0	552	143	333	138	0	0	614	33	222	29	0	0	284	1780
Approach %	12.4	53.3	34.2	0.0	-	-	17.8	71.6	10.7	0.0	-	-	23.3	54.2	22.5	0.0	-	-	11.6	78.2	10.2	0.0	-	-	-
Total %	2.3	9.9	6.3	0.0	-	18.5	5.5	22.2	3.3	0.0	-	31.0	8.0	18.7	7.8	0.0	-	34.5	1.9	12.5	1.6	0.0	-	16.0	-
PHF	0.683	0.800	0.807	0.000	-	0.825	0.845	0.823	0.922	0.000	-	0.836	0.872	0.793	0.627	0.000	-	0.779	0.750	0.881	0.806	0.000	-	0.855	0.931
Motorcycles	0	1	0	0	-	1	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Motorcycles	0.0	0.6	0.0	-	-	0.3	0.0	0.3	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.1
Cars & Light Goods	40	170	111	0	-	321	98	390	57	0	-	545	142	330	138	0	-	610	32	221	29	0	-	282	1758
% Cars & Light Goods	97.6	96.6	98.2	-	-	97.3	100.0	98.7	96.6	-	-	98.7	99.3	99.1	100.0	-	-	99.3	97.0	99.5	100.0	-	-	99.3	98.8
Buses	1	2	1	0	-	4	0	3	1	0	-	4	0	1	0	0	-	1	1	0	0	0	-	1	10
% Buses	2.4	1.1	0.9	-	-	1.2	0.0	0.8	1.7	-	-	0.7	0.0	0.3	0.0	-	-	0.2	3.0	0.0	0.0	-	-	0.4	0.6
Single-Unit Trucks	0	3	1	0	-	4	0	1	1	0	-	2	1	1	0	0	-	2	0	1	0	0	-	1	9
% Single-Unit Trucks	0.0	1.7	0.9	-	-	1.2	0.0	0.3	1.7	-	-	0.4	0.7	0.3	0.0	-	-	0.3	0.0	0.5	0.0	-	-	0.4	0.5
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.3	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.1
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: Mt Albert Road & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024



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: Mt Albert Road & Colonel Wayling Blvd
Site Code: 230671
Start Date: 05/14/2024

Turning Movement Data

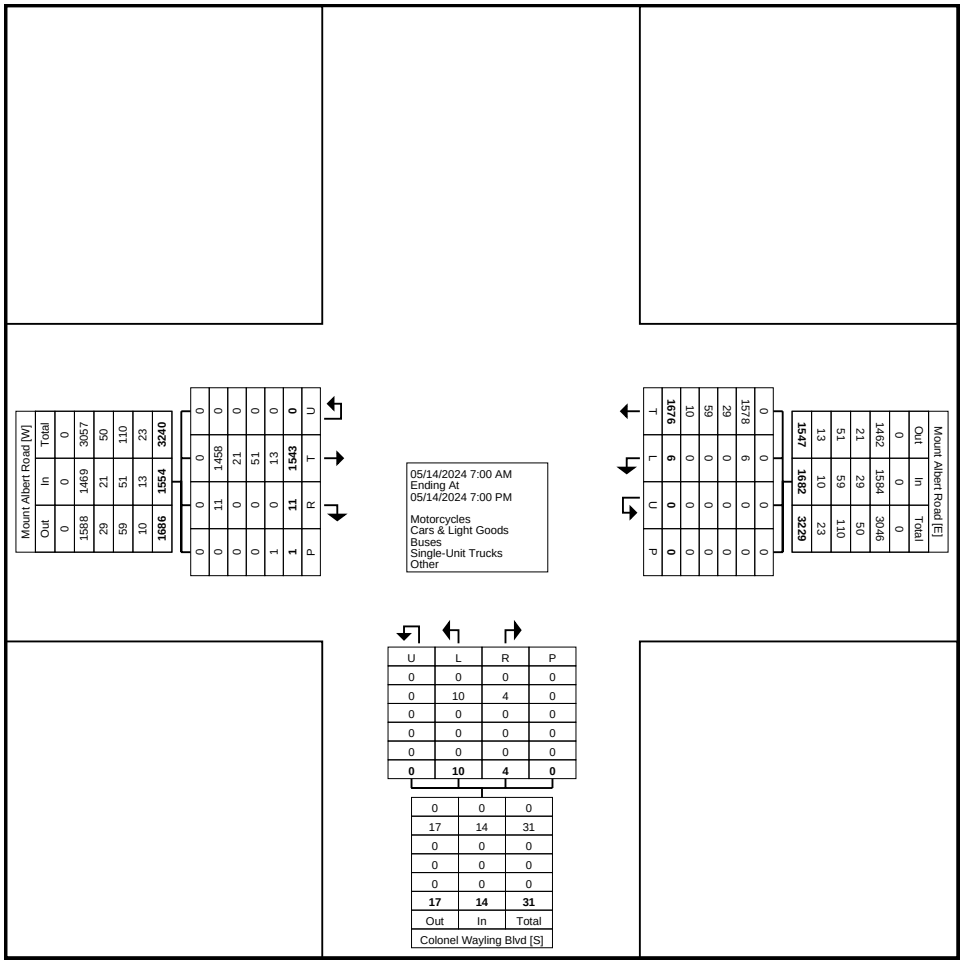
Start Time	Mount Albert Road Eastbound					Mount Albert Road Westbound					Colonel Wayling Blvd Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
7:00 AM	40	0	0	0	40	0	14	0	0	14	0	0	0	0	0	54
7:15 AM	35	0	0	0	35	0	21	0	0	21	0	0	0	0	0	56
7:30 AM	56	0	0	0	56	0	26	0	0	26	0	0	0	0	0	82
7:45 AM	52	0	0	0	52	0	33	0	0	33	1	0	0	0	1	86
Hourly Total	183	0	0	0	183	0	94	0	0	94	1	0	0	0	1	278
8:00 AM	67	0	0	0	67	0	42	0	0	42	1	0	0	0	1	110
8:15 AM	48	1	0	0	49	0	43	0	0	43	0	0	0	0	0	92
8:30 AM	37	0	0	0	37	0	47	0	0	47	0	0	0	0	0	84
8:45 AM	38	0	0	0	38	0	34	0	0	34	1	0	0	0	1	73
Hourly Total	190	1	0	0	191	0	166	0	0	166	2	0	0	0	2	359
9:00 AM	27	0	0	0	27	0	32	0	0	32	0	0	0	0	0	59
9:15 AM	31	2	0	0	33	0	25	0	0	25	1	0	0	0	1	59
9:30 AM	22	0	0	0	22	1	24	0	0	25	0	1	0	0	1	48
9:45 AM	23	1	0	0	24	0	31	0	0	31	0	0	0	0	0	55
Hourly Total	103	3	0	0	106	1	112	0	0	113	1	1	0	0	2	221
10:00 AM	23	0	0	0	23	0	21	0	0	21	0	0	0	0	0	44
10:15 AM	24	0	0	0	24	0	22	0	0	22	1	0	0	0	1	47
10:30 AM	21	0	0	0	21	0	28	0	0	28	0	0	0	0	0	49
10:45 AM	30	0	0	0	30	0	26	0	0	26	0	0	0	0	0	56
Hourly Total	98	0	0	0	98	0	97	0	0	97	1	0	0	0	1	196
11:00 AM	26	0	0	0	26	0	18	0	0	18	0	0	0	0	0	44
11:15 AM	18	0	0	0	18	0	26	0	0	26	0	0	0	0	0	44
11:30 AM	27	0	0	0	27	0	27	0	0	27	0	0	0	0	0	54
11:45 AM	36	0	0	0	36	0	20	0	0	20	0	0	0	0	0	56
Hourly Total	107	0	0	0	107	0	91	0	0	91	0	0	0	0	0	198
12:00 PM	27	0	0	0	27	0	31	0	0	31	0	0	0	0	0	58
12:15 PM	26	0	0	0	26	0	22	0	0	22	0	0	0	0	0	48
12:30 PM	35	0	0	0	35	1	33	0	0	34	1	0	0	0	1	70
12:45 PM	29	0	0	0	29	0	32	0	0	32	1	0	0	0	1	62
Hourly Total	117	0	0	0	117	1	118	0	0	119	2	0	0	0	2	238
1:00 PM	32	1	0	0	33	0	25	0	0	25	0	0	0	0	0	58
1:15 PM	20	0	0	0	20	0	29	0	0	29	0	0	0	0	0	49
1:30 PM	23	0	0	0	23	0	27	0	0	27	0	0	0	0	0	50
1:45 PM	19	0	0	0	19	0	27	0	0	27	1	0	0	0	1	47
Hourly Total	94	1	0	0	95	0	108	0	0	108	1	0	0	0	1	204
2:00 PM	22	1	0	0	23	0	28	0	0	28	0	0	0	0	0	51

2:15 PM	34	0	0	0	34	0	36	0	0	36	0	0	0	0	0	70
2:30 PM	28	0	0	0	28	1	33	0	0	34	0	1	0	0	1	63
2:45 PM	20	0	0	0	20	0	38	0	0	38	0	0	0	0	0	58
Hourly Total	104	1	0	0	105	1	135	0	0	136	0	1	0	0	1	242
3:00 PM	43	1	0	0	44	0	40	0	0	40	0	1	0	0	1	85
3:15 PM	42	1	0	0	43	0	52	0	0	52	1	0	0	0	1	96
3:30 PM	36	1	0	0	37	0	56	0	0	56	0	0	0	0	0	93
3:45 PM	37	1	0	1	38	0	28	0	0	28	1	0	0	0	1	67
Hourly Total	158	4	0	1	162	0	176	0	0	176	2	1	0	0	3	341
4:00 PM	43	0	0	0	43	0	52	0	0	52	0	0	0	0	0	95
4:15 PM	35	0	0	0	35	0	60	0	0	60	0	0	0	0	0	95
4:30 PM	37	0	0	0	37	1	58	0	0	59	0	0	0	0	0	96
4:45 PM	32	0	0	0	32	0	57	0	0	57	0	1	0	0	1	90
Hourly Total	147	0	0	0	147	1	227	0	0	228	0	1	0	0	1	376
5:00 PM	35	0	0	0	35	0	46	0	0	46	0	0	0	0	0	81
5:15 PM	49	0	0	0	49	0	61	0	0	61	0	0	0	0	0	110
5:30 PM	33	0	0	0	33	0	60	0	0	60	0	0	0	0	0	93
5:45 PM	28	0	0	0	28	1	39	0	0	40	0	0	0	0	0	68
Hourly Total	145	0	0	0	145	1	206	0	0	207	0	0	0	0	0	352
6:00 PM	27	0	0	0	27	0	47	0	0	47	0	0	0	0	0	74
6:15 PM	34	0	0	0	34	0	35	0	0	35	0	0	0	0	0	69
6:30 PM	19	1	0	0	20	1	27	0	0	28	0	0	0	0	0	48
6:45 PM	17	0	0	0	17	0	37	0	0	37	0	0	0	0	0	54
Hourly Total	97	1	0	0	98	1	146	0	0	147	0	0	0	0	0	245
Grand Total	1543	11	0	1	1554	6	1676	0	0	1682	10	4	0	0	14	3250
Approach %	99.3	0.7	0.0	-	-	0.4	99.6	0.0	-	-	71.4	28.6	0.0	-	-	-
Total %	47.5	0.3	0.0	-	47.8	0.2	51.6	0.0	-	51.8	0.3	0.1	0.0	-	0.4	-
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
Cars & Light Goods	1458	11	0	-	1469	6	1578	0	-	1584	10	4	0	-	14	3067
% Cars & Light Goods	94.5	100.0	-	-	94.5	100.0	94.2	-	-	94.2	100.0	100.0	-	-	100.0	94.4
Buses	21	0	0	-	21	0	29	0	-	29	0	0	0	-	0	50
% Buses	1.4	0.0	-	-	1.4	0.0	1.7	-	-	1.7	0.0	0.0	-	-	0.0	1.5
Single-Unit Trucks	51	0	0	-	51	0	59	0	-	59	0	0	0	-	0	110
% Single-Unit Trucks	3.3	0.0	-	-	3.3	0.0	3.5	-	-	3.5	0.0	0.0	-	-	0.0	3.4
Articulated Trucks	9	0	0	-	9	0	6	0	-	6	0	0	0	-	0	15
% Articulated Trucks	0.6	0.0	-	-	0.6	0.0	0.4	-	-	0.4	0.0	0.0	-	-	0.0	0.5
Bicycles on Road	4	0	0	-	4	0	4	0	-	4	0	0	0	-	0	8
% Bicycles on Road	0.3	0.0	-	-	0.3	0.0	0.2	-	-	0.2	0.0	0.0	-	-	0.0	0.2
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Mt Albert Road & Colonel Wayling Blvd
Site Code: 230671
Start Date: 05/14/2024



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: Mt Albert Road & Colonel Wayling Blvd
Site Code: 230671
Start Date: 05/14/2024

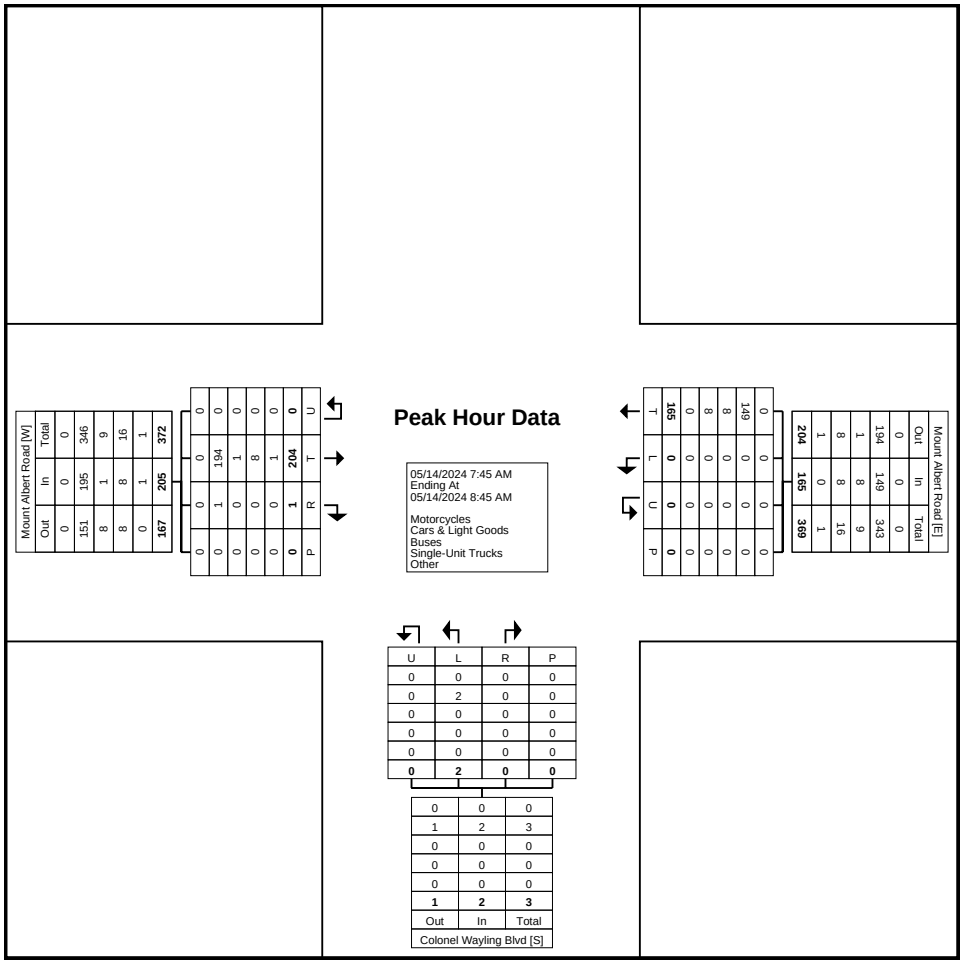
Turning Movement Peak Hour Data (7:45 AM)

Start Time	Mount Albert Road Eastbound					Mount Albert Road Westbound					Colonel Wayling Blvd Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
7:45 AM	52	0	0	0	52	0	33	0	0	33	1	0	0	0	1	86
8:00 AM	67	0	0	0	67	0	42	0	0	42	1	0	0	0	1	110
8:15 AM	48	1	0	0	49	0	43	0	0	43	0	0	0	0	0	92
8:30 AM	37	0	0	0	37	0	47	0	0	47	0	0	0	0	0	84
Total	204	1	0	0	205	0	165	0	0	165	2	0	0	0	2	372
Approach %	99.5	0.5	0.0	-	-	0.0	100.0	0.0	-	-	100.0	0.0	0.0	-	-	-
Total %	54.8	0.3	0.0	-	55.1	0.0	44.4	0.0	-	44.4	0.5	0.0	0.0	-	0.5	-
PHF	0.761	0.250	0.000	-	0.765	0.000	0.878	0.000	-	0.878	0.500	0.000	0.000	-	0.500	0.845
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
Cars & Light Goods	194	1	0	-	195	0	149	0	-	149	2	0	0	-	2	346
% Cars & Light Goods	95.1	100.0	-	-	95.1	-	90.3	-	-	90.3	100.0	-	-	-	100.0	93.0
Buses	1	0	0	-	1	0	8	0	-	8	0	0	0	-	0	9
% Buses	0.5	0.0	-	-	0.5	-	4.8	-	-	4.8	0.0	-	-	-	0.0	2.4
Single-Unit Trucks	8	0	0	-	8	0	8	0	-	8	0	0	0	-	0	16
% Single-Unit Trucks	3.9	0.0	-	-	3.9	-	4.8	-	-	4.8	0.0	-	-	-	0.0	4.3
Articulated Trucks	1	0	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Articulated Trucks	0.5	0.0	-	-	0.5	-	0.0	-	-	0.0	0.0	-	-	-	0.0	0.3
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	-	0.0	-	-	0.0	0.0	-	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Mt Albert Road & Colonel Wayling Blvd
Site Code: 230671
Start Date: 05/14/2024



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 cbowness@ptsl.com

Count Name: Mt Albert Road & Colonel Wayling Blvd
Site Code: 230671
Start Date: 05/14/2024

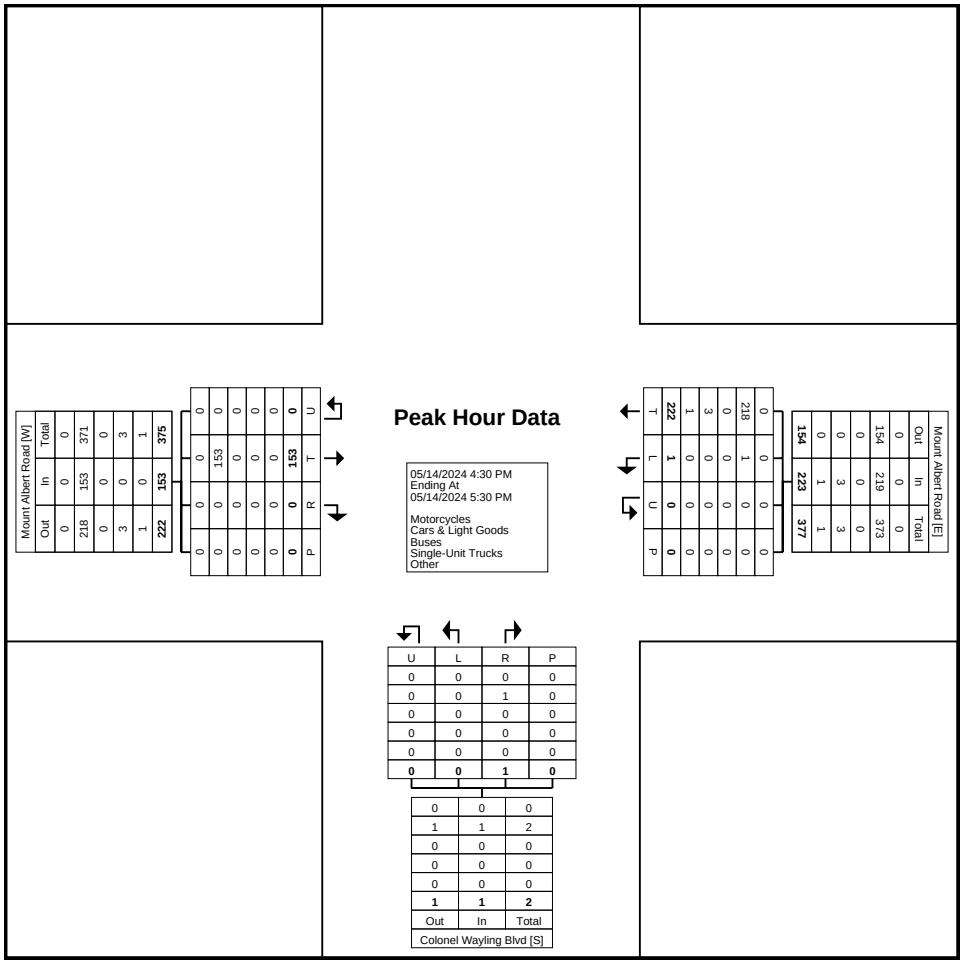
Turning Movement Peak Hour Data (4:30 PM)

Start Time	Mount Albert Road Eastbound					Mount Albert Road Westbound					Colonel Wayling Blvd Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
4:30 PM	37	0	0	0	37	1	58	0	0	59	0	0	0	0	0	96
4:45 PM	32	0	0	0	32	0	57	0	0	57	0	1	0	0	1	90
5:00 PM	35	0	0	0	35	0	46	0	0	46	0	0	0	0	0	81
5:15 PM	49	0	0	0	49	0	61	0	0	61	0	0	0	0	0	110
Total	153	0	0	0	153	1	222	0	0	223	0	1	0	0	1	377
Approach %	100.0	0.0	0.0	-	-	0.4	99.6	0.0	-	-	0.0	100.0	0.0	-	-	-
Total %	40.6	0.0	0.0	-	40.6	0.3	58.9	0.0	-	59.2	0.0	0.3	0.0	-	0.3	-
PHF	0.781	0.000	0.000	-	0.781	0.250	0.910	0.000	-	0.914	0.000	0.250	0.000	-	0.250	0.857
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
Cars & Light Goods	153	0	0	-	153	1	218	0	-	219	0	1	0	-	1	373
% Cars & Light Goods	100.0	-	-	-	100.0	100.0	98.2	-	-	98.2	-	100.0	-	-	100.0	98.9
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	-	-	-	0.0	0.0	0.0	-	-	0.0	-	0.0	-	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	3	0	-	3	0	0	0	-	0	3
% Single-Unit Trucks	0.0	-	-	-	0.0	0.0	1.4	-	-	1.3	-	0.0	-	-	0.0	0.8
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	-	-	-	0.0	0.0	0.0	-	-	0.0	-	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Bicycles on Road	0.0	-	-	-	0.0	0.0	0.5	-	-	0.4	-	0.0	-	-	0.0	0.3
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	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: Mt Albert Road & Colonel Wayling Blvd
Site Code: 230671
Start Date: 05/14/2024



Turning Movement Peak Hour Data Plot (4:30 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Mt Albert Road & Leslie Street
Site Code: 230671
Start Date: 05/14/2024

Turning Movement Data

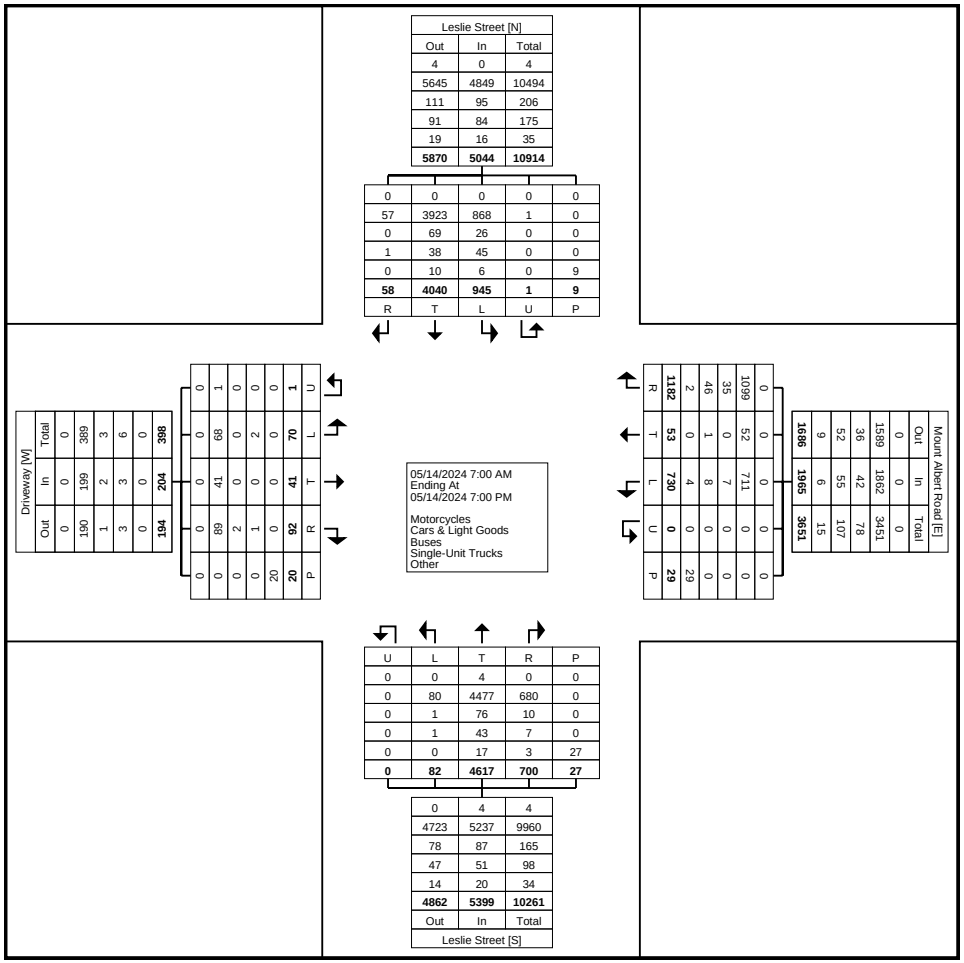
Start Time	Driveway Eastbound						Mount Albert Road Westbound						Leslie Street Northbound						Leslie Street Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	0	1	3	0	0	4	7	1	9	0	0	17	0	36	6	0	0	42	25	101	0	0	0	126	189
7:15 AM	0	0	0	0	0	0	10	0	20	0	0	30	0	28	8	0	0	36	24	129	0	0	0	153	219
7:30 AM	1	0	0	0	0	1	10	0	21	0	0	31	1	34	10	0	0	45	37	124	0	0	0	161	238
7:45 AM	0	0	2	0	2	2	20	0	23	0	0	43	1	49	11	0	0	61	45	138	1	0	0	184	290
Hourly Total	1	1	5	0	2	7	47	1	73	0	0	121	2	147	35	0	0	184	131	492	1	0	0	624	936
8:00 AM	0	0	0	0	0	0	30	2	30	0	1	62	0	53	17	0	0	70	44	187	2	0	1	233	365
8:15 AM	1	0	2	0	1	3	21	7	23	0	0	51	6	62	12	0	0	80	33	145	7	0	0	185	319
8:30 AM	2	0	1	0	1	3	20	0	27	0	0	47	6	75	9	0	0	90	26	135	3	0	0	164	304
8:45 AM	0	0	1	1	1	2	26	2	25	0	0	53	3	72	19	0	0	94	30	132	2	0	0	164	313
Hourly Total	3	0	4	1	3	8	97	11	105	0	1	213	15	262	57	0	0	334	133	599	14	0	1	746	1301
9:00 AM	1	1	2	0	0	4	21	1	11	0	0	33	3	69	20	0	0	92	15	110	2	0	0	127	256
9:15 AM	0	1	1	0	0	2	21	2	14	0	2	37	1	83	12	0	0	96	19	104	0	0	1	123	258
9:30 AM	0	0	1	0	0	1	19	5	17	0	0	41	1	58	15	0	0	74	15	78	4	0	0	97	213
9:45 AM	2	0	2	0	4	4	18	4	16	0	0	38	1	62	15	0	1	78	12	61	3	0	3	76	196
Hourly Total	3	2	6	0	4	11	79	12	58	0	2	149	6	272	62	0	1	340	61	353	9	0	4	423	923
10:00 AM	1	3	0	0	1	4	15	2	19	0	0	36	1	60	15	0	0	76	17	91	0	0	0	108	224
10:15 AM	2	1	0	0	0	3	9	0	22	0	0	31	3	61	14	0	0	78	11	85	1	0	0	97	209
10:30 AM	1	2	0	0	0	3	13	0	19	0	0	32	0	66	12	0	2	78	11	78	3	0	0	92	205
10:45 AM	1	0	3	0	0	4	21	0	14	0	0	35	3	64	13	0	0	80	14	73	0	0	0	87	206
Hourly Total	5	6	3	0	1	14	58	2	74	0	0	134	7	251	54	0	2	312	53	327	4	0	0	384	844
11:00 AM	1	0	1	0	0	2	10	0	13	0	0	23	3	67	10	0	0	80	17	66	0	0	0	83	188
11:15 AM	2	0	3	0	0	5	27	1	19	0	0	47	0	63	13	0	0	76	6	65	2	0	0	73	201
11:30 AM	3	4	3	0	0	10	9	2	24	0	1	35	2	69	12	0	0	83	12	73	0	0	0	85	213
11:45 AM	0	2	1	0	0	3	10	1	20	0	0	31	1	74	12	0	0	87	16	73	1	0	0	90	211
Hourly Total	6	6	8	0	0	20	56	4	76	0	1	136	6	273	47	0	0	326	51	277	3	0	0	331	813
12:00 PM	1	1	4	0	0	6	15	1	21	0	1	37	0	80	11	0	0	91	22	74	0	0	0	96	230
12:15 PM	4	0	4	0	0	8	12	0	15	0	0	27	2	70	12	0	0	84	18	69	0	1	0	88	207
12:30 PM	5	0	2	0	0	7	20	3	17	0	0	40	2	71	14	0	2	87	20	68	1	0	0	89	223
12:45 PM	1	1	3	0	2	5	19	1	27	0	3	47	2	76	17	0	1	95	12	77	3	0	1	92	239
Hourly Total	11	2	13	0	2	26	66	5	80	0	4	151	6	297	54	0	3	357	72	288	4	1	1	365	899
1:00 PM	2	1	2	0	0	5	16	0	20	0	3	36	2	80	11	0	4	93	13	80	2	0	0	95	229
1:15 PM	1	0	3	0	0	4	13	2	19	0	4	34	3	82	12	0	0	97	19	74	0	0	0	93	228
1:30 PM	2	0	1	0	0	3	14	0	15	0	1	29	4	65	7	0	0	76	16	69	1	0	0	86	194
1:45 PM	0	1	1	0	0	2	12	2	25	0	0	39	1	75	13	0	0	89	9	72	5	0	0	86	216
Hourly Total	5	2	7	0	0	14	55	4	79	0	8	138	10	302	43	0	4	355	57	295	8	0	0	360	867

2:00 PM	3	0	4	0	0	7	15	2	10	0	0	27	3	80	16	0	0	99	15	73	1	0	0	89	222
2:15 PM	0	1	1	0	0	2	9	0	25	0	0	34	1	123	21	0	0	145	18	71	3	0	0	92	273
2:30 PM	1	2	3	0	1	6	10	2	32	0	0	44	3	104	14	0	0	121	16	55	1	0	0	72	243
2:45 PM	3	1	0	0	0	4	21	2	20	0	0	43	2	111	13	0	0	126	11	63	0	0	0	74	247
Hourly Total	7	4	8	0	1	19	55	6	87	0	0	148	9	418	64	0	0	491	60	262	5	0	0	327	985
3:00 PM	1	0	1	0	0	2	17	0	27	0	0	44	0	149	12	0	0	161	21	92	1	0	1	114	321
3:15 PM	1	3	0	0	0	4	17	0	40	0	0	57	2	137	25	0	0	164	20	69	1	0	0	90	315
3:30 PM	2	1	1	0	0	4	19	1	31	0	1	51	1	143	23	0	0	167	19	75	1	0	0	95	317
3:45 PM	3	0	1	0	0	4	13	1	32	0	0	46	2	167	17	0	1	186	18	77	2	0	0	97	333
Hourly Total	7	4	3	0	0	14	66	2	130	0	1	198	5	596	77	0	1	678	78	313	5	0	1	396	1286
4:00 PM	1	1	2	0	0	4	16	0	34	0	0	50	2	177	24	0	1	203	27	64	0	0	0	91	348
4:15 PM	3	8	4	0	0	15	20	2	51	0	0	73	4	198	15	0	2	217	21	75	0	0	0	96	401
4:30 PM	8	2	11	0	0	21	11	1	38	0	2	50	1	150	20	0	2	171	21	74	1	0	0	96	338
4:45 PM	3	1	6	0	2	10	16	0	40	0	0	56	3	194	17	0	0	214	26	71	0	0	0	97	377
Hourly Total	15	12	23	0	2	50	63	3	163	0	2	229	10	719	76	0	5	805	95	284	1	0	0	380	1464
5:00 PM	1	1	2	0	0	4	8	0	31	0	0	39	1	188	19	0	0	208	21	70	1	0	0	92	343
5:15 PM	0	1	3	0	3	4	16	0	40	0	0	56	0	201	23	0	2	224	28	69	1	0	0	98	382
5:30 PM	1	0	0	0	1	1	12	0	47	0	2	59	0	154	15	0	4	169	23	74	0	0	1	97	326
5:45 PM	1	0	1	0	0	2	7	0	28	0	3	35	0	127	16	0	2	143	16	71	0	0	1	87	267
Hourly Total	3	2	6	0	4	11	43	0	146	0	5	189	1	670	73	0	8	744	88	284	2	0	2	374	1318
6:00 PM	2	0	4	0	0	6	10	0	29	0	0	39	0	125	11	0	0	136	13	65	0	0	0	78	259
6:15 PM	0	0	2	0	0	2	13	0	41	0	0	54	1	98	16	0	0	115	24	66	0	0	0	90	261
6:30 PM	2	0	0	0	1	2	11	1	22	0	3	34	2	107	18	0	3	127	13	65	0	0	0	78	241
6:45 PM	0	0	0	0	0	0	11	2	19	0	2	32	2	80	13	0	0	95	16	70	2	0	0	88	215
Hourly Total	4	0	6	0	1	10	45	3	111	0	5	159	5	410	58	0	3	473	66	266	2	0	0	334	976
Grand Total	70	41	92	1	20	204	730	53	1182	0	29	1965	82	4617	700	0	27	5399	945	4040	58	1	9	5044	12612
Approach %	34.3	20.1	45.1	0.5	-	-	37.2	2.7	60.2	0.0	-	-	1.5	85.5	13.0	0.0	-	-	18.7	80.1	1.1	0.0	-	-	-
Total %	0.6	0.3	0.7	0.0	-	1.6	5.8	0.4	9.4	0.0	-	15.6	0.7	36.6	5.6	0.0	-	42.8	7.5	32.0	0.5	0.0	-	40.0	-
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	4	0	0	-	4	0	0	0	0	-	0	4
% Motorcycles	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.1	0.0	-	-	0.1	0.0	0.0	0.0	0.0	-	0.0	0.0
Cars & Light Goods	68	41	89	1	-	199	711	52	1099	0	-	1862	80	4477	680	0	-	5237	868	3923	57	1	-	4849	12147
% Cars & Light Goods	97.1	100.0	96.7	100.0	-	97.5	97.4	98.1	93.0	-	-	94.8	97.6	97.0	97.1	-	-	97.0	91.9	97.1	98.3	100.0	-	96.1	96.3
Buses	0	0	2	0	-	2	7	0	35	0	-	42	1	76	10	0	-	87	26	69	0	0	-	95	226
% Buses	0.0	0.0	2.2	0.0	-	1.0	1.0	0.0	3.0	-	-	2.1	1.2	1.6	1.4	-	-	1.6	2.8	1.7	0.0	0.0	-	1.9	1.8
Single-Unit Trucks	2	0	1	0	-	3	8	1	46	0	-	55	1	43	7	0	-	51	45	38	1	0	-	84	193
% Single-Unit Trucks	2.9	0.0	1.1	0.0	-	1.5	1.1	1.9	3.9	-	-	2.8	1.2	0.9	1.0	-	-	0.9	4.8	0.9	1.7	0.0	-	1.7	1.5
Articulated Trucks	0	0	0	0	-	0	4	0	2	0	-	6	0	14	3	0	-	17	6	10	0	0	-	16	39
% Articulated Trucks	0.0	0.0	0.0	0.0	-	0.0	0.5	0.0	0.2	-	-	0.3	0.0	0.3	0.4	-	-	0.3	0.6	0.2	0.0	0.0	-	0.3	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	3	0	0	-	3	0	0	0	0	-	0	3
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.1	0.0	-	-	0.1	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	10.3	-	-	-	-	-	7.4	-	-	-	-	-	11.1	-	-
Pedestrians	-	-	-	-	20	-	-	-	-	-	26	-	-	-	-	-	25	-	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	89.7	-	-	-	-	-	92.6	-	-	-	-	-	88.9	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Mt Albert Road & Leslie Street
Site Code: 230671
Start Date: 05/14/2024



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: Mt Albert Road & Leslie Street
Site Code: 230671
Start Date: 05/14/2024

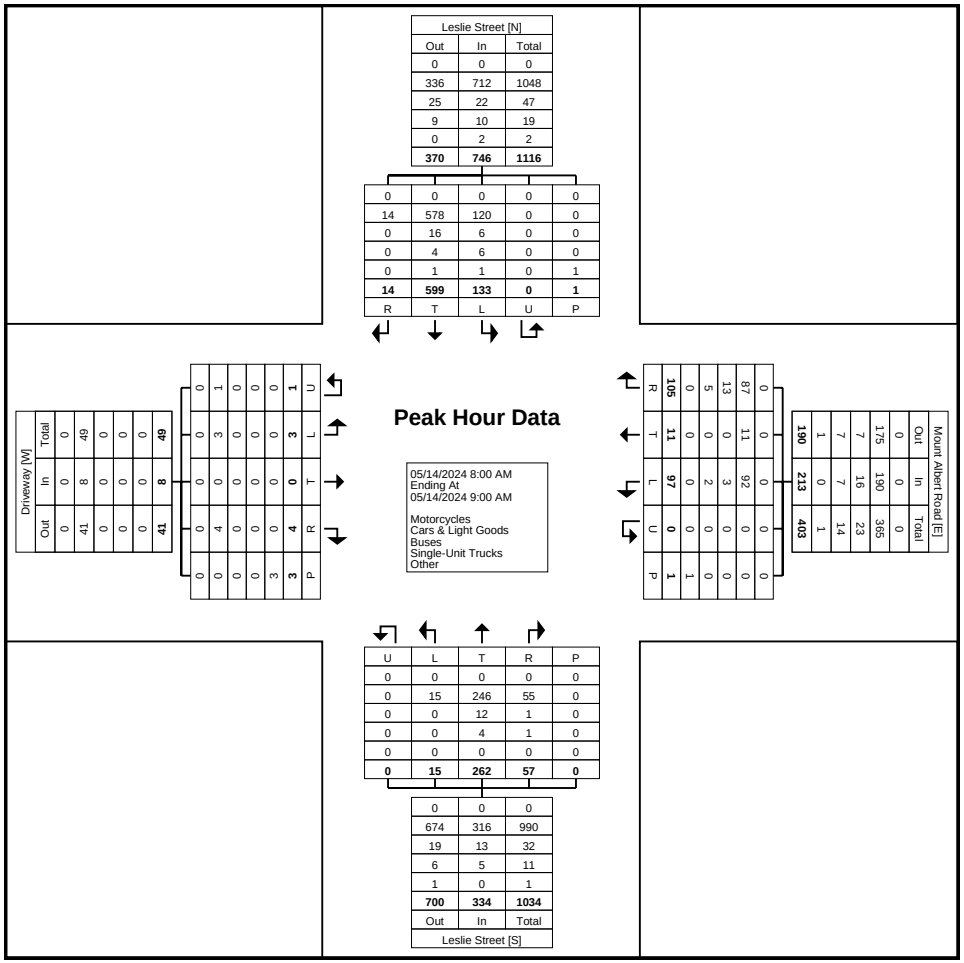
Turning Movement Peak Hour Data (8:00 AM)

Start Time	Driveway Eastbound						Mount Albert Road Westbound						Leslie Street Northbound						Leslie 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	
8:00 AM	0	0	0	0	0	0	30	2	30	0	1	62	0	53	17	0	0	70	44	187	2	0	1	233	365
8:15 AM	1	0	2	0	1	3	21	7	23	0	0	51	6	62	12	0	0	80	33	145	7	0	0	185	319
8:30 AM	2	0	1	0	1	3	20	0	27	0	0	47	6	75	9	0	0	90	26	135	3	0	0	164	304
8:45 AM	0	0	1	1	1	2	26	2	25	0	0	53	3	72	19	0	0	94	30	132	2	0	0	164	313
Total	3	0	4	1	3	8	97	11	105	0	1	213	15	262	57	0	0	334	133	599	14	0	1	746	1301
Approach %	37.5	0.0	50.0	12.5	-	-	45.5	5.2	49.3	0.0	-	-	4.5	78.4	17.1	0.0	-	-	17.8	80.3	1.9	0.0	-	-	-
Total %	0.2	0.0	0.3	0.1	-	0.6	7.5	0.8	8.1	0.0	-	16.4	1.2	20.1	4.4	0.0	-	25.7	10.2	46.0	1.1	0.0	-	57.3	-
PHF	0.375	0.000	0.500	0.250	-	0.667	0.808	0.393	0.875	0.000	-	0.859	0.625	0.873	0.750	0.000	-	0.888	0.756	0.801	0.500	0.000	-	0.800	0.891
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	3	0	4	1	-	8	92	11	87	0	-	190	15	246	55	0	-	316	120	578	14	0	-	712	1226
% Cars & Light Goods	100.0	-	100.0	100.0	-	100.0	94.8	100.0	82.9	-	-	89.2	100.0	93.9	96.5	-	-	94.6	90.2	96.5	100.0	-	-	95.4	94.2
Buses	0	0	0	0	-	0	3	0	13	0	-	16	0	12	1	0	-	13	6	16	0	0	-	22	51
% Buses	0.0	-	0.0	0.0	-	0.0	3.1	0.0	12.4	-	-	7.5	0.0	4.6	1.8	-	-	3.9	4.5	2.7	0.0	-	-	2.9	3.9
Single-Unit Trucks	0	0	0	0	-	0	2	0	5	0	-	7	0	4	1	0	-	5	6	4	0	0	-	10	22
% Single-Unit Trucks	0.0	-	0.0	0.0	-	0.0	2.1	0.0	4.8	-	-	3.3	0.0	1.5	1.8	-	-	1.5	4.5	0.7	0.0	-	-	1.3	1.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1	1	0	0	-	2	2
% Articulated Trucks	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.8	0.2	0.0	-	-	0.3	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	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: Mt Albert Road & Leslie Street
Site Code: 230671
Start Date: 05/14/2024



Turning Movement Peak Hour Data Plot (8:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Mt Albert Road & Leslie Street
Site Code: 230671
Start Date: 05/14/2024

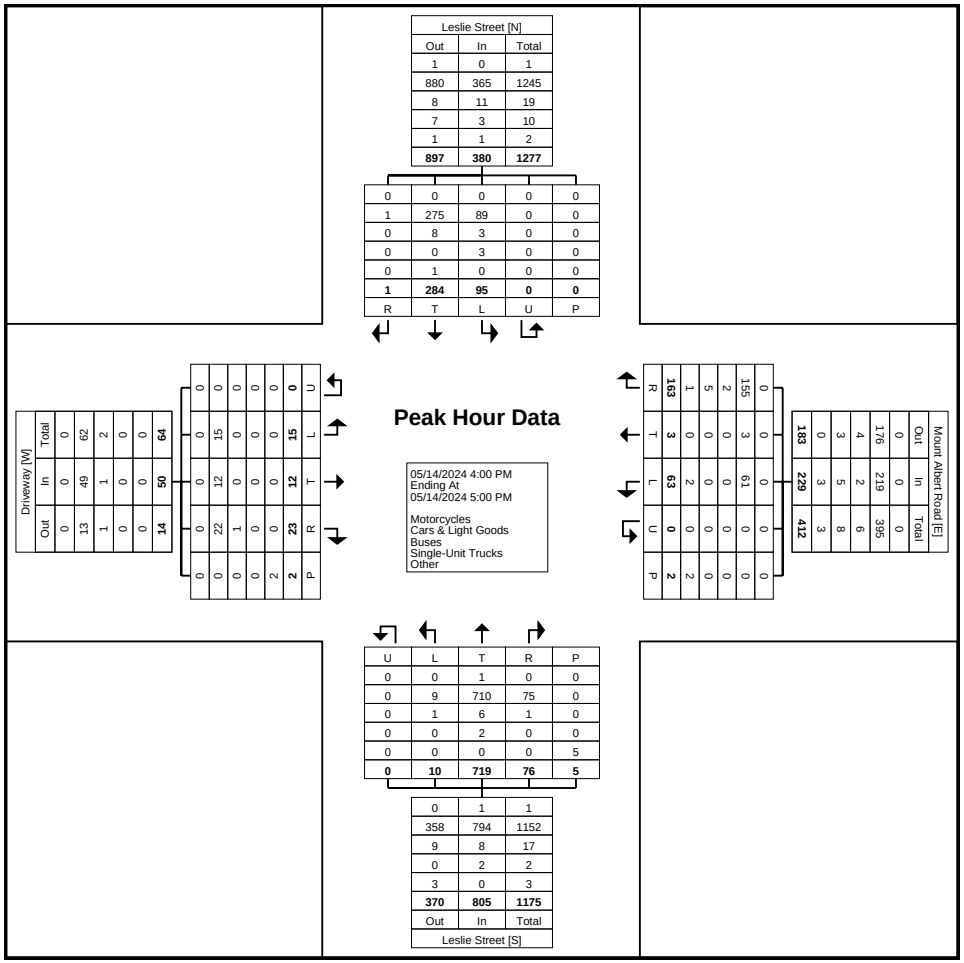
Turning Movement Peak Hour Data (4:00 PM)

Start Time	Driveway Eastbound						Mount Albert Road Westbound						Leslie Street Northbound						Leslie 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	
4:00 PM	1	1	2	0	0	4	16	0	34	0	0	50	2	177	24	0	1	203	27	64	0	0	0	91	348
4:15 PM	3	8	4	0	0	15	20	2	51	0	0	73	4	198	15	0	2	217	21	75	0	0	0	96	401
4:30 PM	8	2	11	0	0	21	11	1	38	0	2	50	1	150	20	0	2	171	21	74	1	0	0	96	338
4:45 PM	3	1	6	0	2	10	16	0	40	0	0	56	3	194	17	0	0	214	26	71	0	0	0	97	377
Total	15	12	23	0	2	50	63	3	163	0	2	229	10	719	76	0	5	805	95	284	1	0	0	380	1464
Approach %	30.0	24.0	46.0	0.0	-	-	27.5	1.3	71.2	0.0	-	-	1.2	89.3	9.4	0.0	-	-	25.0	74.7	0.3	0.0	-	-	-
Total %	1.0	0.8	1.6	0.0	-	3.4	4.3	0.2	11.1	0.0	-	15.6	0.7	49.1	5.2	0.0	-	55.0	6.5	19.4	0.1	0.0	-	26.0	-
PHF	0.469	0.375	0.523	0.000	-	0.595	0.788	0.375	0.799	0.000	-	0.784	0.625	0.908	0.792	0.000	-	0.927	0.880	0.947	0.250	0.000	-	0.979	0.913
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	1
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.1	0.0	-	-	0.1	0.0	0.0	0.0	-	-	0.0	0.1
Cars & Light Goods	15	12	22	0	-	49	61	3	155	0	-	219	9	710	75	0	-	794	89	275	1	0	-	365	1427
% Cars & Light Goods	100.0	100.0	95.7	-	-	98.0	96.8	100.0	95.1	-	-	95.6	90.0	98.7	98.7	-	-	98.6	93.7	96.8	100.0	-	-	96.1	97.5
Buses	0	0	1	0	-	1	0	0	2	0	-	2	1	6	1	0	-	8	3	8	0	0	-	11	22
% Buses	0.0	0.0	4.3	-	-	2.0	0.0	0.0	1.2	-	-	0.9	10.0	0.8	1.3	-	-	1.0	3.2	2.8	0.0	-	-	2.9	1.5
Single-Unit Trucks	0	0	0	0	-	0	0	0	5	0	-	5	0	2	0	0	-	2	3	0	0	0	-	3	10
% Single-Unit Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	3.1	-	-	2.2	0.0	0.3	0.0	-	-	0.2	3.2	0.0	0.0	-	-	0.8	0.7
Articulated Trucks	0	0	0	0	-	0	2	0	1	0	-	3	0	0	0	0	-	0	0	1	0	0	-	1	4
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	3.2	0.0	0.6	-	-	1.3	0.0	0.0	0.0	-	-	0.0	0.0	0.4	0.0	-	-	0.3	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	50.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	5	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	50.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Mt Albert Road & Leslie Street
Site Code: 230671
Start Date: 05/14/2024



Turning Movement Peak Hour Data Plot (4:00 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Mt Albert Road & Murrell Blvd
Site Code: 230671
Start Date: 05/14/2024

Turning Movement Data

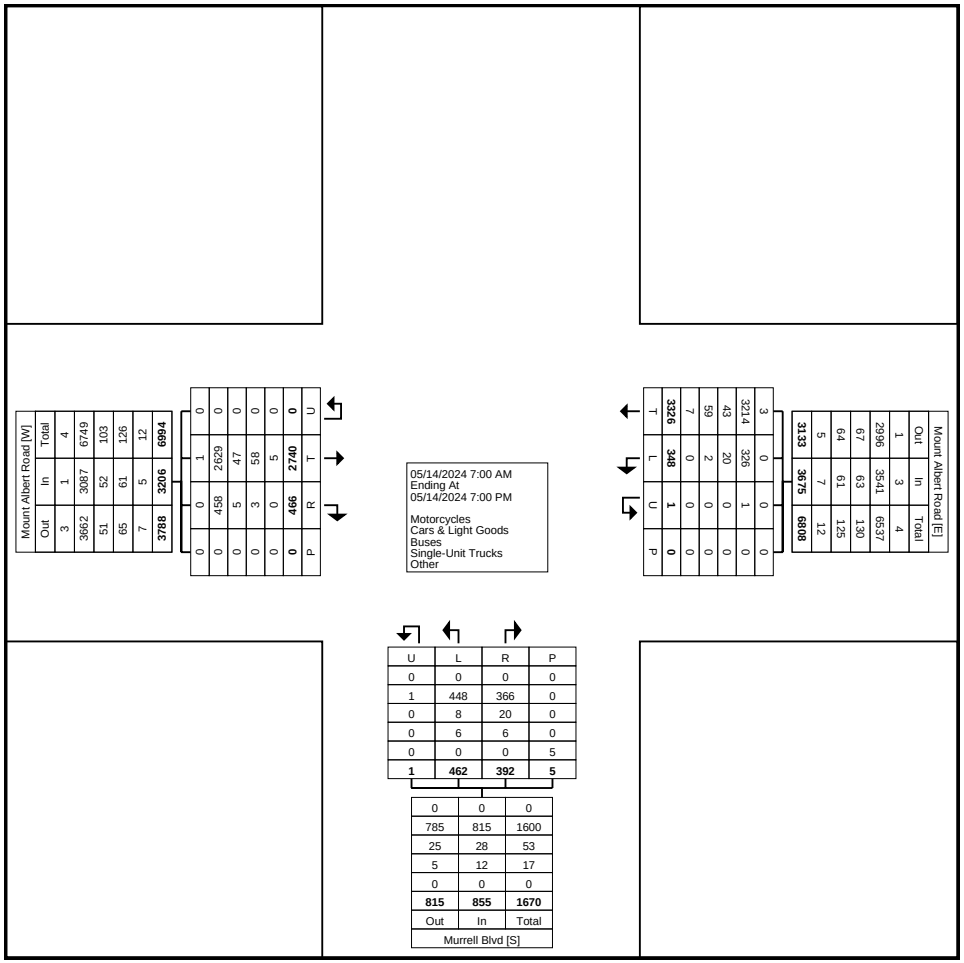
Start Time	Mount Albert Road Eastbound					Mount Albert Road Westbound					Murrell Blvd Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
7:00 AM	55	7	0	0	62	1	33	0	0	34	4	8	0	0	12	108
7:15 AM	60	8	0	0	68	5	42	0	0	47	15	8	0	0	23	138
7:30 AM	93	5	0	0	98	1	50	0	0	51	11	9	0	1	20	169
7:45 AM	107	3	0	0	110	8	57	0	0	65	11	3	0	0	14	189
Hourly Total	315	23	0	0	338	15	182	0	0	197	41	28	0	1	69	604
8:00 AM	111	14	0	0	125	2	66	0	0	68	12	10	0	0	22	215
8:15 AM	84	15	0	0	99	13	66	0	0	79	8	11	0	2	19	197
8:30 AM	86	20	0	0	106	30	63	0	0	93	9	13	0	0	22	221
8:45 AM	81	12	0	0	93	16	76	0	0	92	19	21	0	0	40	225
Hourly Total	362	61	0	0	423	61	271	0	0	332	48	55	0	2	103	858
9:00 AM	64	9	0	0	73	9	42	0	0	51	12	12	0	0	24	148
9:15 AM	46	6	0	0	52	0	49	0	0	49	12	3	0	0	15	116
9:30 AM	45	9	0	0	54	3	38	0	0	41	5	4	0	0	9	104
9:45 AM	51	8	0	0	59	2	40	0	0	42	8	6	0	0	14	115
Hourly Total	206	32	0	0	238	14	169	0	0	183	37	25	0	0	62	483
10:00 AM	47	6	0	0	53	4	48	0	0	52	8	5	0	0	13	118
10:15 AM	43	2	0	0	45	4	49	0	0	53	4	7	0	0	11	109
10:30 AM	41	9	0	0	50	3	42	0	0	45	6	2	0	0	8	103
10:45 AM	41	9	0	0	50	5	50	0	0	55	6	13	0	0	19	124
Hourly Total	172	26	0	0	198	16	189	0	0	205	24	27	0	0	51	454
11:00 AM	43	8	0	0	51	2	37	0	0	39	12	7	0	0	19	109
11:15 AM	23	4	0	0	27	4	52	0	0	56	6	3	0	0	9	92
11:30 AM	32	4	0	0	36	3	54	0	0	57	8	6	0	0	14	107
11:45 AM	42	8	0	0	50	5	41	0	0	46	2	5	0	0	7	103
Hourly Total	140	24	0	0	164	14	184	0	0	198	28	21	0	0	49	411
12:00 PM	48	10	0	0	58	6	41	0	0	47	7	8	1	0	16	121
12:15 PM	34	5	0	0	39	4	64	0	0	68	3	4	0	0	7	114
12:30 PM	57	3	0	0	60	4	55	1	0	60	6	10	0	0	16	136
12:45 PM	52	9	0	0	61	5	45	0	0	50	7	4	0	0	11	122
Hourly Total	191	27	0	0	218	19	205	1	0	225	23	26	1	0	50	493
1:00 PM	44	3	0	0	47	6	56	0	0	62	10	5	0	0	15	124
1:15 PM	45	4	0	0	49	5	60	0	0	65	8	5	0	0	13	127
1:30 PM	46	8	0	0	54	6	55	0	0	61	5	6	0	0	11	126
1:45 PM	41	13	0	0	54	5	50	0	0	55	6	3	0	0	9	118
Hourly Total	176	28	0	0	204	22	221	0	0	243	29	19	0	0	48	495
2:00 PM	38	5	0	0	43	2	43	0	0	45	7	2	0	0	9	97

2:15 PM	43	7	0	0	50	6	68	0	0	74	5	3	0	0	8	132
2:30 PM	51	5	0	0	56	6	72	0	0	78	13	5	0	0	18	152
2:45 PM	49	12	0	0	61	15	84	0	0	99	21	6	0	0	27	187
Hourly Total	181	29	0	0	210	29	267	0	0	296	46	16	0	0	62	568
3:00 PM	57	13	0	0	70	13	85	0	0	98	18	5	0	0	23	191
3:15 PM	54	13	0	0	67	12	114	0	0	126	15	18	0	0	33	226
3:30 PM	77	17	0	0	94	11	94	0	0	105	14	21	0	0	35	234
3:45 PM	59	8	0	0	67	6	110	0	0	116	10	9	0	0	19	202
Hourly Total	247	51	0	0	298	42	403	0	0	445	57	53	0	0	110	853
4:00 PM	62	17	0	0	79	11	118	0	0	129	7	10	0	0	17	225
4:15 PM	70	10	0	0	80	13	137	0	0	150	17	6	0	0	23	253
4:30 PM	67	15	0	0	82	11	114	0	0	125	10	12	0	1	22	229
4:45 PM	71	8	0	0	79	6	133	0	0	139	9	6	0	0	15	233
Hourly Total	270	50	0	0	320	41	502	0	0	543	43	34	0	1	77	940
5:00 PM	83	17	0	0	100	8	126	0	0	134	7	16	0	0	23	257
5:15 PM	54	12	0	0	66	10	150	0	0	160	12	16	0	0	28	254
5:30 PM	58	15	0	0	73	16	114	0	0	130	14	11	0	0	25	228
5:45 PM	67	15	0	0	82	12	80	0	0	92	9	11	0	0	20	194
Hourly Total	262	59	0	0	321	46	470	0	0	516	42	54	0	0	96	933
6:00 PM	55	12	0	0	67	7	88	0	0	95	14	9	0	0	23	185
6:15 PM	61	15	0	0	76	8	70	0	0	78	14	6	0	0	20	174
6:30 PM	61	16	0	0	77	3	67	0	0	70	9	10	0	1	19	166
6:45 PM	41	13	0	0	54	11	38	0	0	49	7	9	0	0	16	119
Hourly Total	218	56	0	0	274	29	263	0	0	292	44	34	0	1	78	644
Grand Total	2740	466	0	0	3206	348	3326	1	0	3675	462	392	1	5	855	7736
Approach %	85.5	14.5	0.0	-	-	9.5	90.5	0.0	-	-	54.0	45.8	0.1	-	-	-
Total %	35.4	6.0	0.0	-	41.4	4.5	43.0	0.0	-	47.5	6.0	5.1	0.0	-	11.1	-
Motorcycles	1	0	0	-	1	0	3	0	-	3	0	0	0	-	0	4
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.1	0.0	-	0.1	0.0	0.0	0.0	-	0.0	0.1
Cars & Light Goods	2629	458	0	-	3087	326	3214	1	-	3541	448	366	1	-	815	7443
% Cars & Light Goods	95.9	98.3	-	-	96.3	93.7	96.6	100.0	-	96.4	97.0	93.4	100.0	-	95.3	96.2
Buses	47	5	0	-	52	20	43	0	-	63	8	20	0	-	28	143
% Buses	1.7	1.1	-	-	1.6	5.7	1.3	0.0	-	1.7	1.7	5.1	0.0	-	3.3	1.8
Single-Unit Trucks	58	3	0	-	61	2	59	0	-	61	6	6	0	-	12	134
% Single-Unit Trucks	2.1	0.6	-	-	1.9	0.6	1.8	0.0	-	1.7	1.3	1.5	0.0	-	1.4	1.7
Articulated Trucks	5	0	0	-	5	0	6	0	-	6	0	0	0	-	0	11
% Articulated Trucks	0.2	0.0	-	-	0.2	0.0	0.2	0.0	-	0.2	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Mt Albert Road & Murrell Blvd
Site Code: 230671
Start Date: 05/14/2024



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: Mt Albert Road & Murrell Blvd
Site Code: 230671
Start Date: 05/14/2024

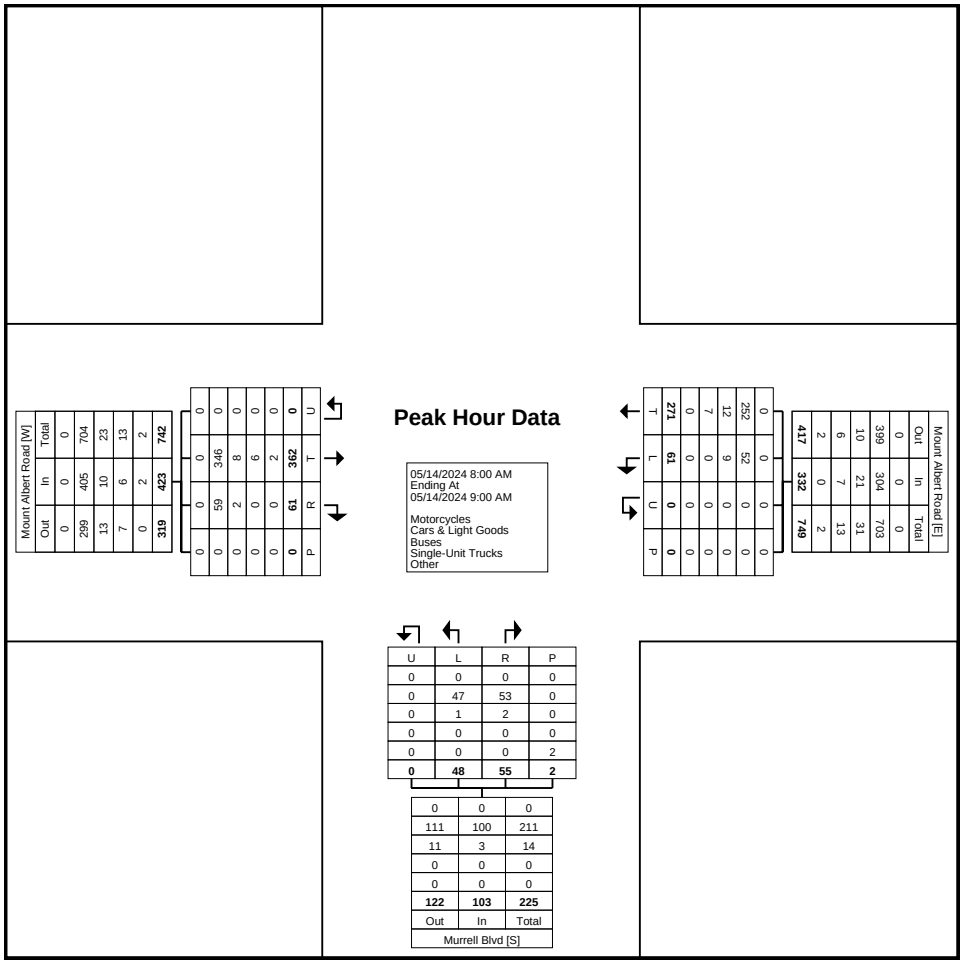
Turning Movement Peak Hour Data (8:00 AM)

Start Time	Mount Albert Road Eastbound					Mount Albert Road Westbound					Murrell Blvd Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
8:00 AM	111	14	0	0	125	2	66	0	0	68	12	10	0	0	22	215
8:15 AM	84	15	0	0	99	13	66	0	0	79	8	11	0	2	19	197
8:30 AM	86	20	0	0	106	30	63	0	0	93	9	13	0	0	22	221
8:45 AM	81	12	0	0	93	16	76	0	0	92	19	21	0	0	40	225
Total	362	61	0	0	423	61	271	0	0	332	48	55	0	2	103	858
Approach %	85.6	14.4	0.0	-	-	18.4	81.6	0.0	-	-	46.6	53.4	0.0	-	-	-
Total %	42.2	7.1	0.0	-	49.3	7.1	31.6	0.0	-	38.7	5.6	6.4	0.0	-	12.0	-
PHF	0.815	0.763	0.000	-	0.846	0.508	0.891	0.000	-	0.892	0.632	0.655	0.000	-	0.644	0.953
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
Cars & Light Goods	346	59	0	-	405	52	252	0	-	304	47	53	0	-	100	809
% Cars & Light Goods	95.6	96.7	-	-	95.7	85.2	93.0	-	-	91.6	97.9	96.4	-	-	97.1	94.3
Buses	8	2	0	-	10	9	12	0	-	21	1	2	0	-	3	34
% Buses	2.2	3.3	-	-	2.4	14.8	4.4	-	-	6.3	2.1	3.6	-	-	2.9	4.0
Single-Unit Trucks	6	0	0	-	6	0	7	0	-	7	0	0	0	-	0	13
% Single-Unit Trucks	1.7	0.0	-	-	1.4	0.0	2.6	-	-	2.1	0.0	0.0	-	-	0.0	1.5
Articulated Trucks	2	0	0	-	2	0	0	0	-	0	0	0	0	-	0	2
% Articulated Trucks	0.6	0.0	-	-	0.5	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.2
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	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: Mt Albert Road & Murrell Blvd
Site Code: 230671
Start Date: 05/14/2024



Turning Movement Peak Hour Data Plot (8:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Mt Albert Road & Murrell Blvd
Site Code: 230671
Start Date: 05/14/2024

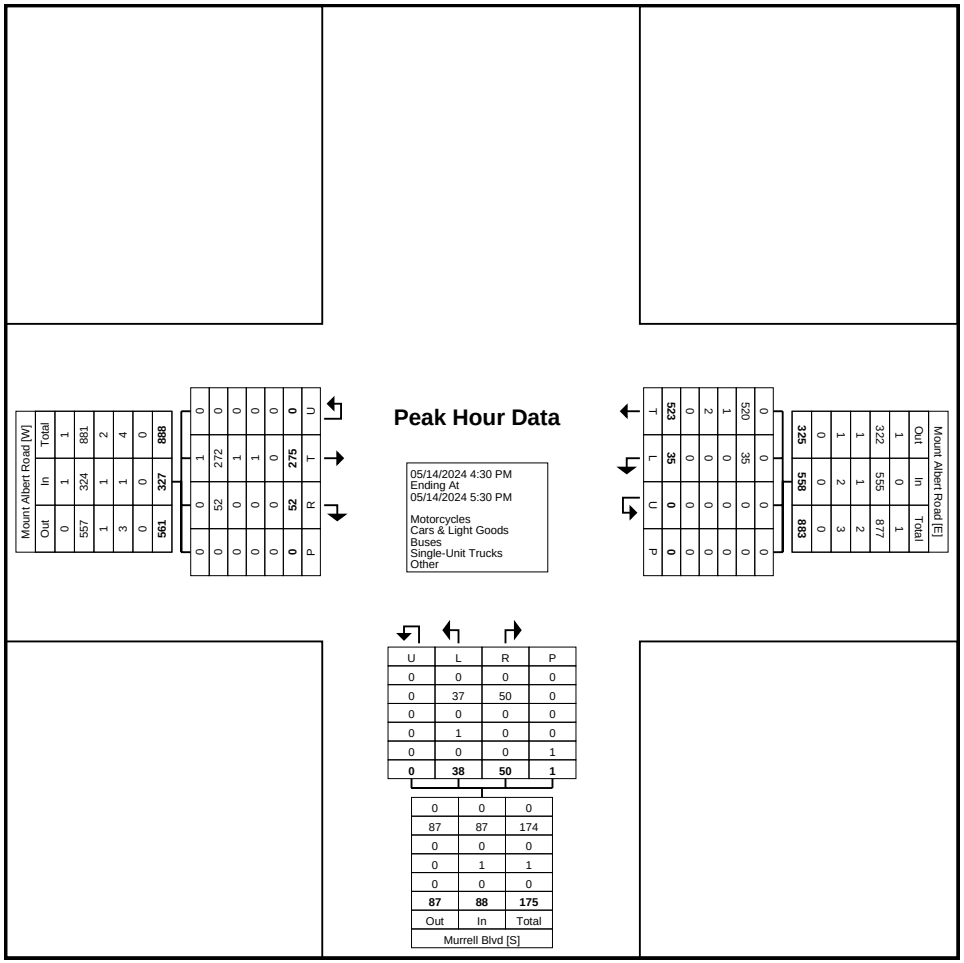
Turning Movement Peak Hour Data (4:30 PM)

Start Time	Mount Albert Road Eastbound					Mount Albert Road Westbound					Murrell Blvd Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
4:30 PM	67	15	0	0	82	11	114	0	0	125	10	12	0	1	22	229
4:45 PM	71	8	0	0	79	6	133	0	0	139	9	6	0	0	15	233
5:00 PM	83	17	0	0	100	8	126	0	0	134	7	16	0	0	23	257
5:15 PM	54	12	0	0	66	10	150	0	0	160	12	16	0	0	28	254
Total	275	52	0	0	327	35	523	0	0	558	38	50	0	1	88	973
Approach %	84.1	15.9	0.0	-	-	6.3	93.7	0.0	-	-	43.2	56.8	0.0	-	-	-
Total %	28.3	5.3	0.0	-	33.6	3.6	53.8	0.0	-	57.3	3.9	5.1	0.0	-	9.0	-
PHF	0.828	0.765	0.000	-	0.818	0.795	0.872	0.000	-	0.872	0.792	0.781	0.000	-	0.786	0.946
Motorcycles	1	0	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Motorcycles	0.4	0.0	-	-	0.3	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.1
Cars & Light Goods	272	52	0	-	324	35	520	0	-	555	37	50	0	-	87	966
% Cars & Light Goods	98.9	100.0	-	-	99.1	100.0	99.4	-	-	99.5	97.4	100.0	-	-	98.9	99.3
Buses	1	0	0	-	1	0	1	0	-	1	0	0	0	-	0	2
% Buses	0.4	0.0	-	-	0.3	0.0	0.2	-	-	0.2	0.0	0.0	-	-	0.0	0.2
Single-Unit Trucks	1	0	0	-	1	0	2	0	-	2	1	0	0	-	1	4
% Single-Unit Trucks	0.4	0.0	-	-	0.3	0.0	0.4	-	-	0.4	2.6	0.0	-	-	1.1	0.4
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
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
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Mt Albert Road & Murrell Blvd
Site Code: 230671
Start Date: 05/14/2024



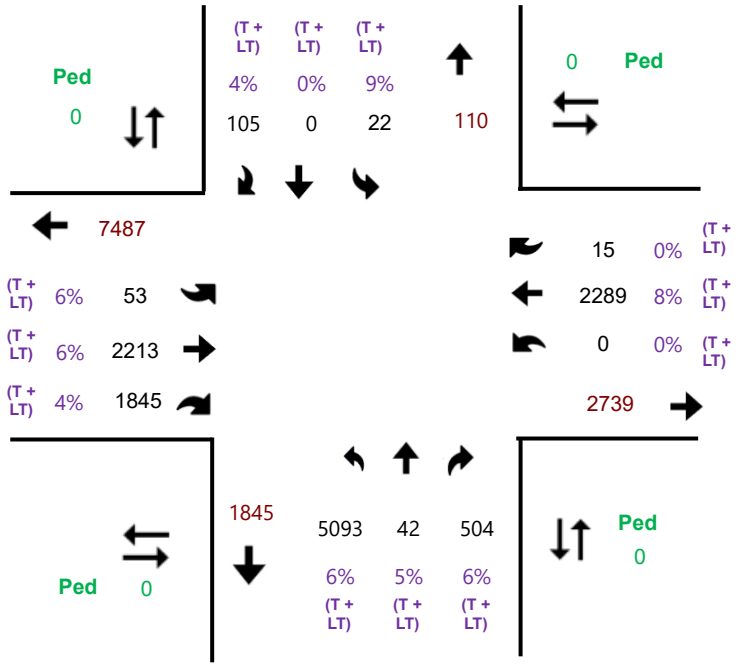
Turning Movement Peak Hour Data Plot (4:30 PM)

Ontario

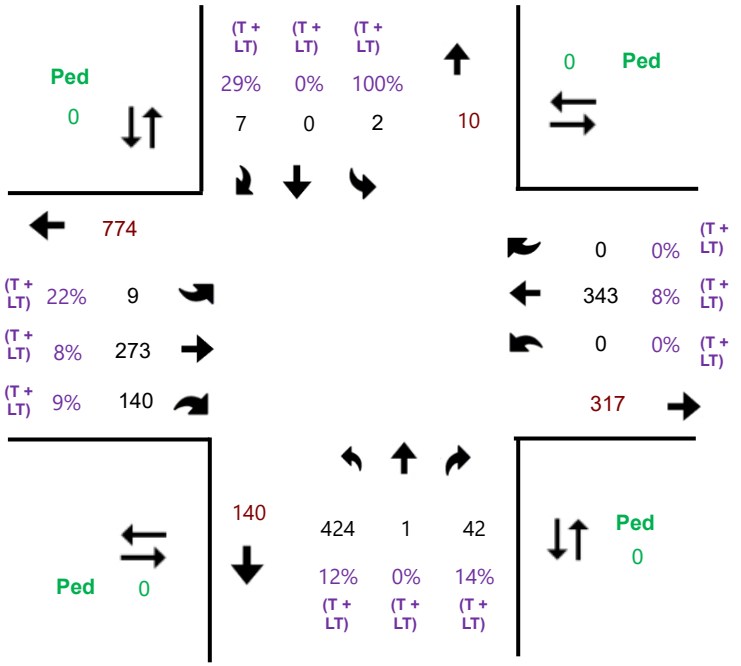
TES - Traffic Engineering System
Turning Movement Total Count and Peak Summary Report

Description: HWY 404 @ GREEN LANE E - RAMP 24
Region CENTRAL **Hwy #:** HWY 404
LHRS_Offset: 48542_0000_24T **Int. Type:** Cross
Count Date: Tuesday, 09 November, 2021

Full Study Tue, 09 Nov, 2021 07:00 AM - 06:00 PM



AM Period Tue, 09 Nov, 2021 07:45 AM - 08:45 AM

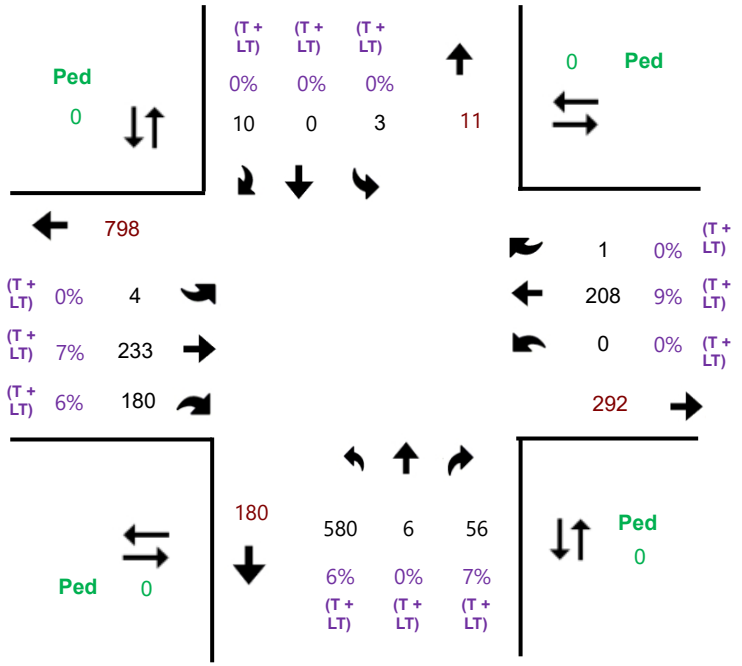


Ontario

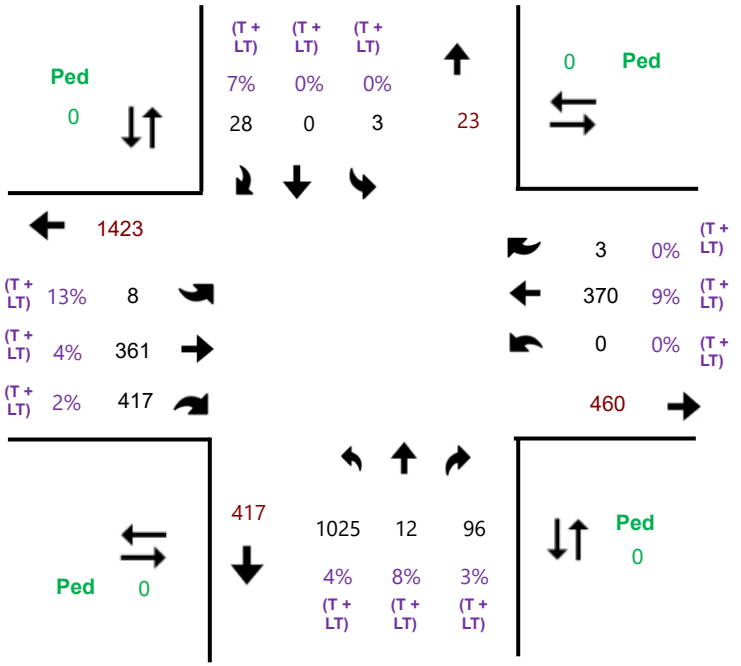
TES - Traffic Engineering System
Turning Movement Total Count and Peak Summary Report

Description:	HWY 404 @ GREEN LANE E - RAMP 24		
Region	CENTRAL	**Hwy #:**	HWY 404
LHRS_Offset:	48542_0000_24T	**Int. Type:**	Cross
Count Date:	Tuesday, 09 November, 2021		

MD Period Tue, 09 Nov, 2021 01:00 PM - 02:00 PM



PM Period Tue, 09 Nov, 2021 03:45 PM - 04:45 PM

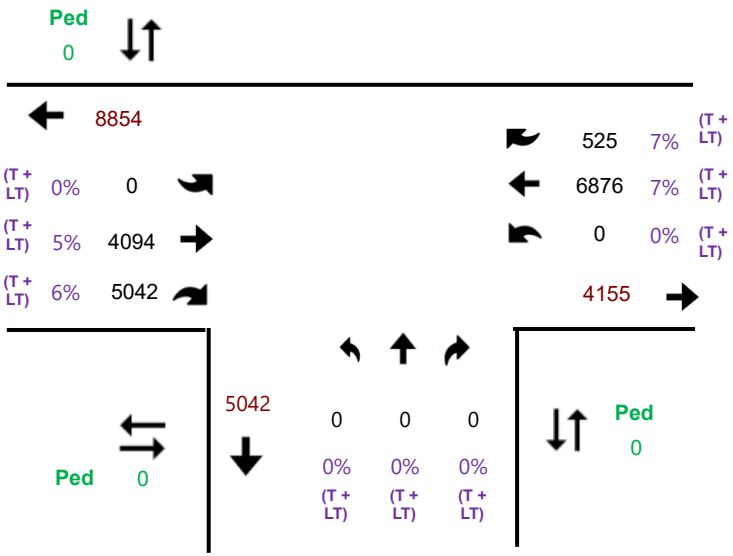


Ontario

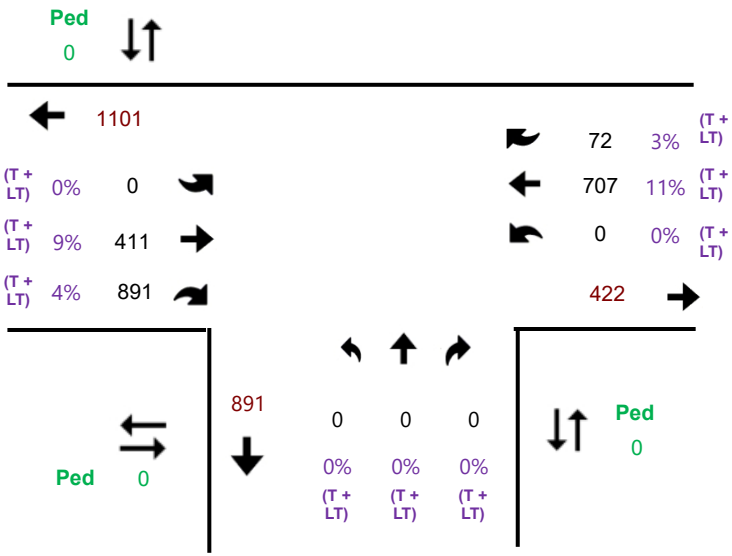
TES - Traffic Engineering System
Turning Movement Total Count and Peak Summary Report

Description:	HWY 404 @ GREEN LANE E - RAMP 34		
Region	CENTRAL	**Hwy #:**	HWY 404
LHRS_Offset:	48542_0000_34T	**Int. Type:**	T-South
Count Date:	Tuesday, 09 November, 2021		

Full Study Tue, 09 Nov, 2021 07:00 AM - 06:00 PM



AM Period Tue, 09 Nov, 2021 07:45 AM - 08:45 AM

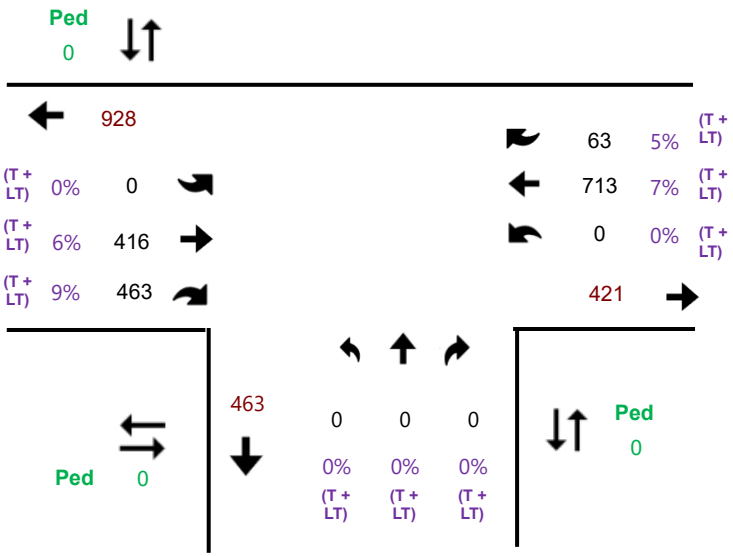


Ontario

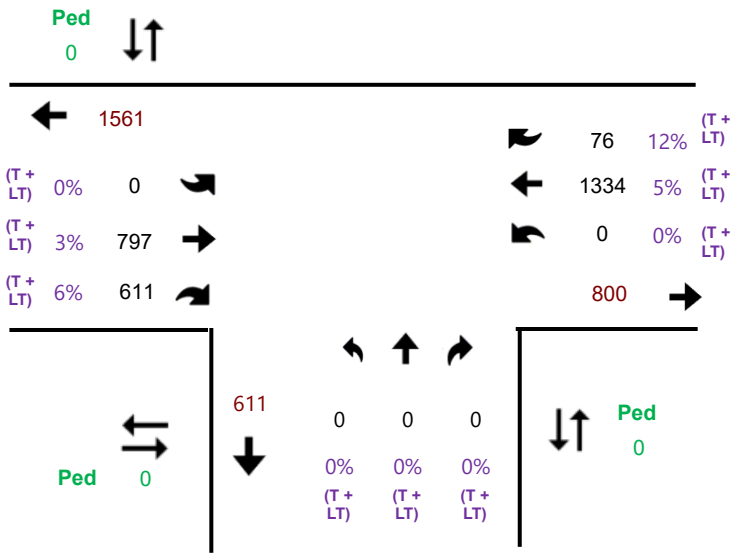
TES - Traffic Engineering System
Turning Movement Total Count and Peak Summary Report

Description:	HWY 404 @ GREEN LANE E - RAMP 34		
Region	CENTRAL	**Hwy #:**	HWY 404
LHRS_Offset:	48542_0000_34T	**Int. Type:**	T-South
Count Date:	Tuesday, 09 November, 2021		

MD Period Tue, 09 Nov, 2021 01:00 PM - 02:00 PM



PM Period Tue, 09 Nov, 2021 03:45 PM - 04:45 PM



Ontario

TES - Traffic Engineering System
Turning Movement Total Count and Peak Summary Report

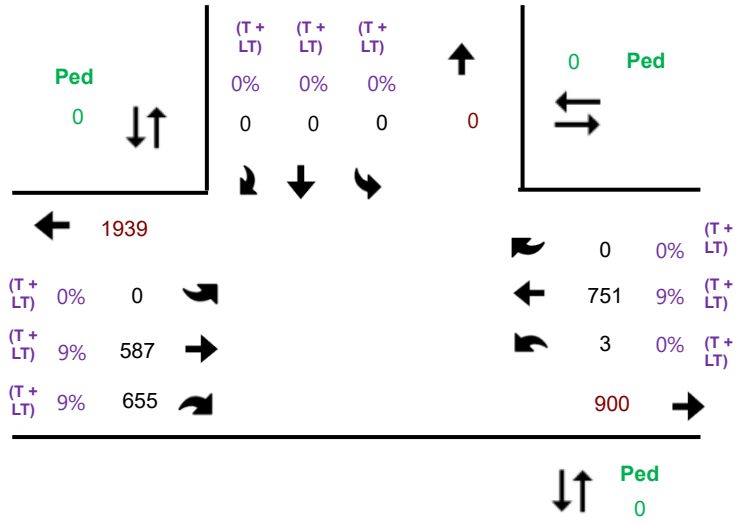
Description: HWY 404 @ QUEENSVILLE SIDERD - RAMP 24

Region CENTRAL **Hwy #:** HWY 404

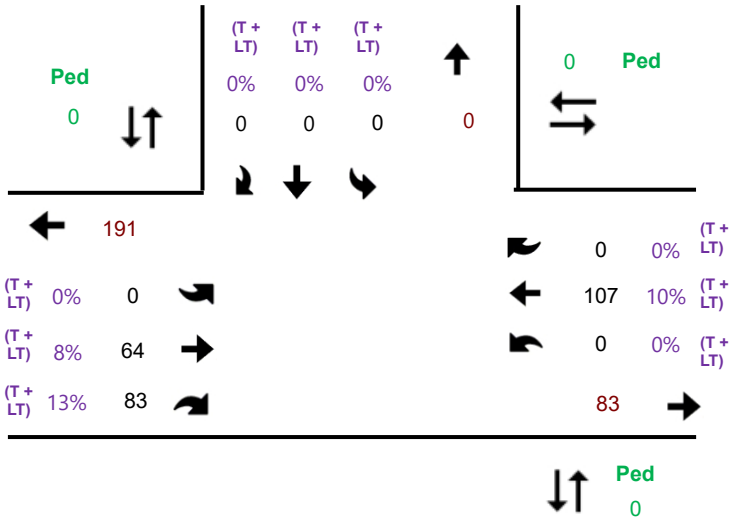
LHRS_Offset: 48545_0000_24T **Int. Type:** T-North

Count Date: Tuesday, 09 November, 2021

Full Study Tue, 09 Nov, 2021 07:00 AM - 06:00 PM



AM Period Tue, 09 Nov, 2021 08:00 AM - 09:00 AM

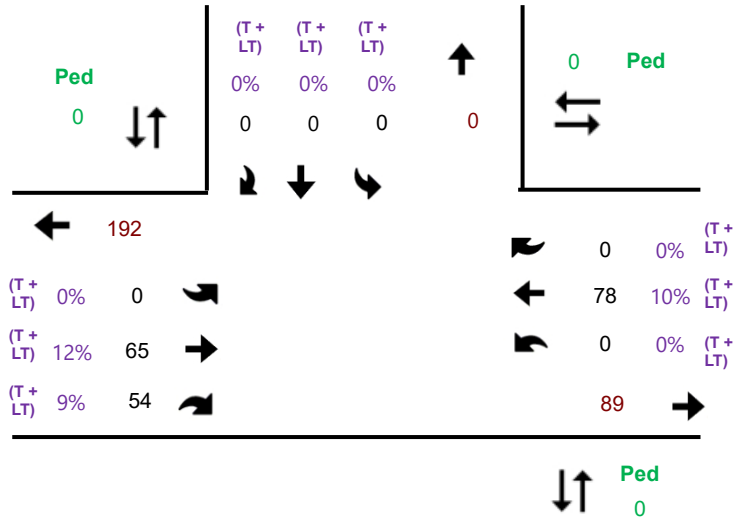


Ontario

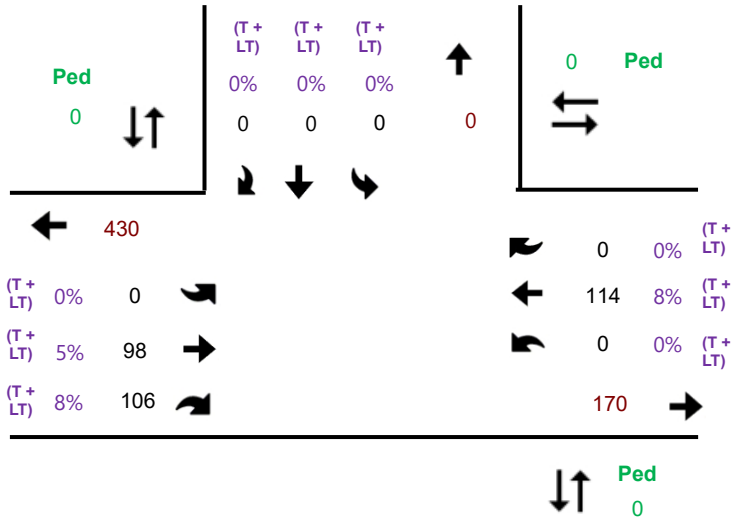
TES - Traffic Engineering System
Turning Movement Total Count and Peak Summary Report

Description: HWY 404 @ QUEENSVILLE SIDERD - RAMP 24
Region CENTRAL **Hwy #:** HWY 404
LHRS_Offset: 48545_0000_24T **Int. Type:** T-North
Count Date: Tuesday, 09 November, 2021

MD Period Tue, 09 Nov, 2021 01:00 PM - 02:00 PM



PM Period Tue, 09 Nov, 2021 04:00 PM - 05:00 PM

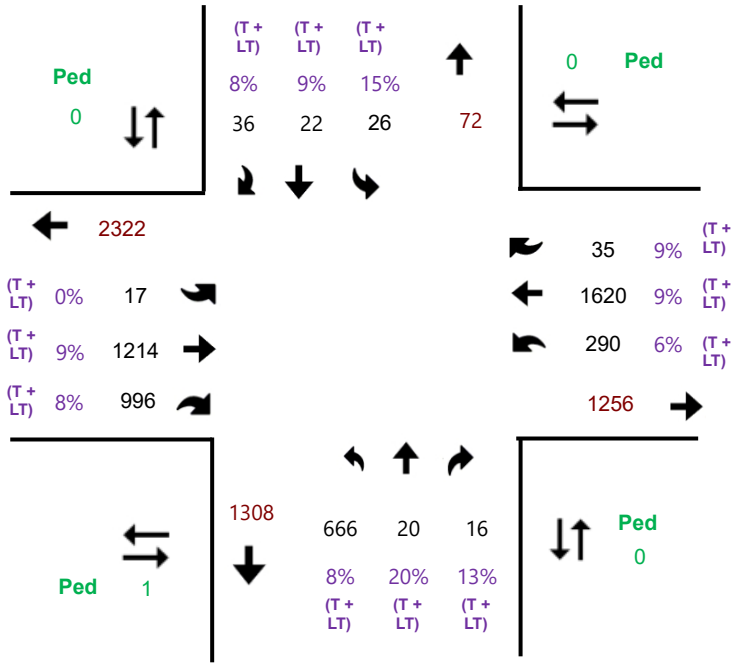


Ontario

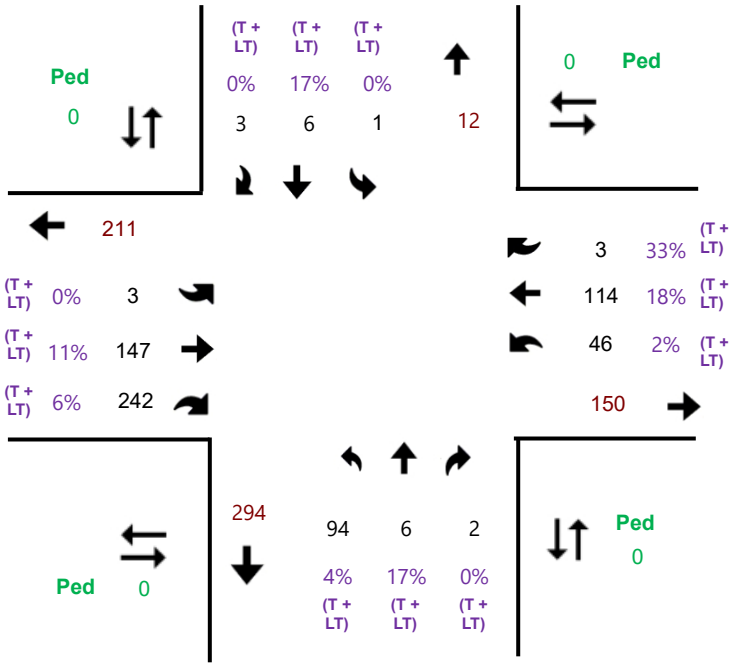
TES - Traffic Engineering System
Turning Movement Total Count and Peak Summary Report

Description: HWY 404 @ QUEENSVILLE SIDERD - RAMP 34
Region CENTRAL **Hwy #:** HWY 404
LHRS_Offset: 48545_0000_34T **Int. Type:** Cross
Count Date: Tuesday, 09 November, 2021

Full Study Tue, 09 Nov, 2021 07:00 AM - 06:00 PM



AM Period Tue, 09 Nov, 2021 07:00 AM - 08:00 AM

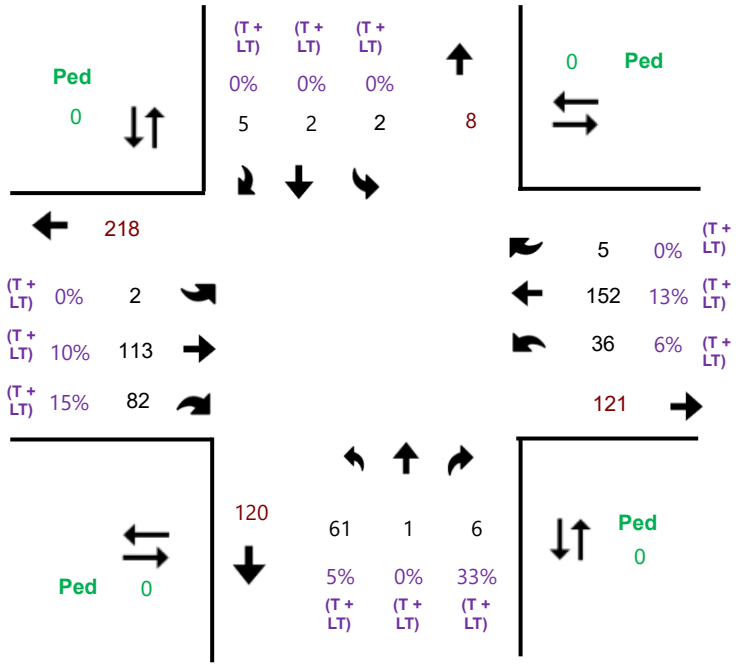


Ontario

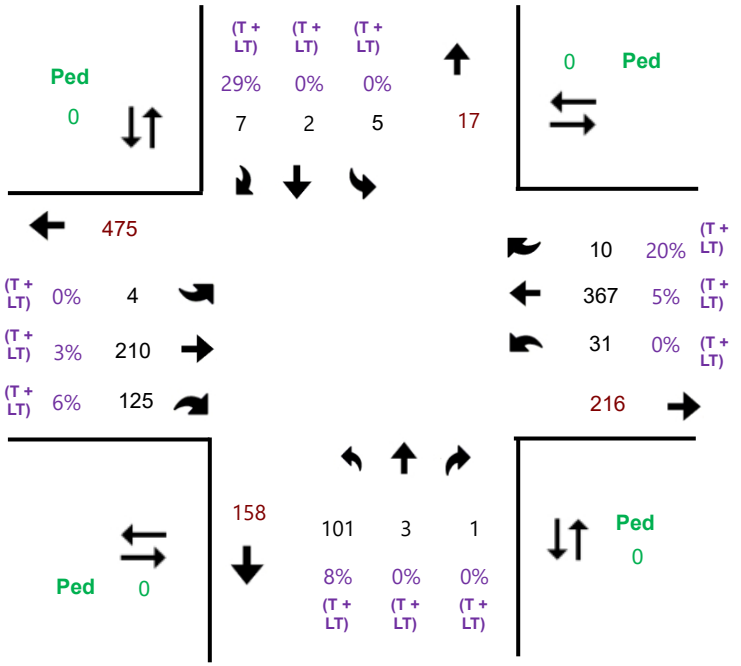
TES - Traffic Engineering System
Turning Movement Total Count and Peak Summary Report

Description: HWY 404 @ QUEENSVILLE SIDERD - RAMP 34
Region CENTRAL **Hwy #:** HWY 404
LHRS_Offset: 48545_0000_34T **Int. Type:** Cross
Count Date: Tuesday, 09 November, 2021

MD Period Tue, 09 Nov, 2021 01:00 PM - 02:00 PM



PM Period Tue, 09 Nov, 2021 04:30 PM - 05:30 PM



Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Queensville Side Road & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024

Turning Movement Data

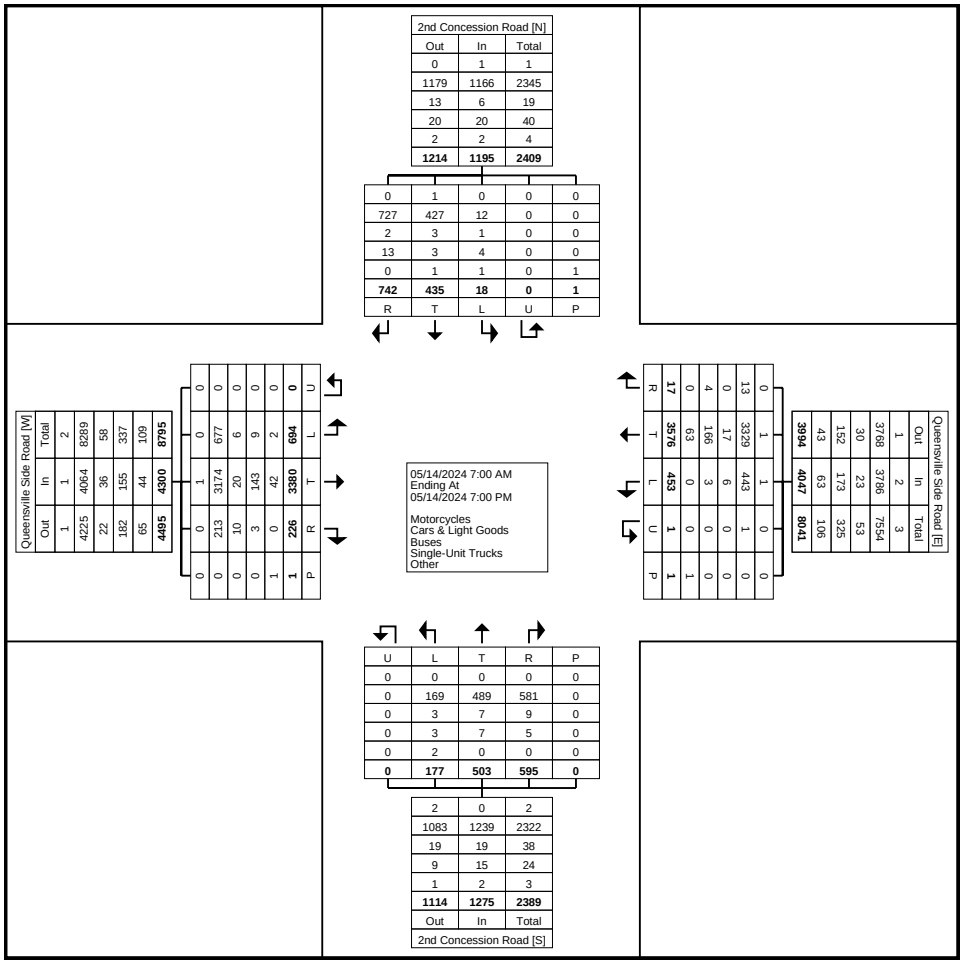
Start Time	Queensville Side Road Eastbound						Queensville Side Road Westbound						2nd Concession Road Northbound						2nd Concession Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	10	96	7	0	0	113	6	69	0	0	0	75	0	2	3	0	0	5	0	7	29	0	0	36	229
7:15 AM	12	94	5	0	0	111	12	71	0	0	0	83	1	3	5	0	0	9	0	19	29	0	0	48	251
7:30 AM	13	76	6	0	0	95	15	80	0	0	0	95	3	9	8	0	0	20	0	9	37	0	0	46	256
7:45 AM	9	87	6	0	0	102	9	52	0	0	0	61	3	8	10	0	0	21	0	17	22	0	0	39	223
Hourly Total	44	353	24	0	0	421	42	272	0	0	0	314	7	22	26	0	0	55	0	52	117	0	0	169	959
8:00 AM	11	93	6	0	0	110	12	66	1	0	0	79	3	7	15	0	0	25	1	21	35	0	0	57	271
8:15 AM	14	90	5	0	0	109	13	61	0	0	0	74	4	8	19	0	0	31	0	19	22	0	0	41	255
8:30 AM	13	89	8	0	0	110	10	47	0	0	0	57	3	8	23	0	0	34	0	13	18	0	0	31	232
8:45 AM	9	64	7	0	0	80	11	48	0	0	0	59	4	11	13	0	0	28	0	10	16	0	0	26	193
Hourly Total	47	336	26	0	0	409	46	222	1	0	0	269	14	34	70	0	0	118	1	63	91	0	0	155	951
9:00 AM	7	85	8	0	0	100	12	53	0	0	0	65	1	8	7	0	0	16	0	11	13	0	0	24	205
9:15 AM	11	74	3	0	0	88	11	46	0	0	0	57	2	9	8	0	0	19	0	12	14	0	0	26	190
9:30 AM	9	64	0	0	0	73	15	53	0	0	0	68	1	9	8	0	0	18	0	11	14	0	0	25	184
9:45 AM	8	69	4	0	0	81	10	50	0	0	0	60	2	7	3	0	0	12	2	4	14	0	0	20	173
Hourly Total	35	292	15	0	0	342	48	202	0	0	0	250	6	33	26	0	0	65	2	38	55	0	0	95	752
10:00 AM	8	60	7	0	0	75	3	46	0	0	0	49	5	6	3	0	0	14	2	8	13	0	0	23	161
10:15 AM	3	60	4	0	0	67	9	43	0	0	0	52	4	9	13	0	0	26	0	9	18	0	0	27	172
10:30 AM	6	61	3	0	0	70	7	41	2	0	0	50	1	7	9	0	0	17	1	8	9	0	0	18	155
10:45 AM	10	59	2	0	0	71	5	50	0	0	0	55	2	6	10	0	0	18	1	7	9	0	0	17	161
Hourly Total	27	240	16	0	0	283	24	180	2	0	0	206	12	28	35	0	0	75	4	32	49	0	0	85	649
11:00 AM	11	51	3	0	0	65	6	47	0	0	0	53	6	5	11	0	0	22	0	12	10	0	0	22	162
11:15 AM	6	53	8	0	0	67	5	60	1	0	0	66	6	4	8	0	0	18	0	8	8	0	0	16	167
11:30 AM	4	36	2	0	0	42	6	53	1	0	0	60	1	8	8	0	0	17	0	7	9	0	0	16	135
11:45 AM	9	61	2	0	0	72	7	61	1	0	0	69	3	6	6	0	0	15	0	5	15	0	0	20	176
Hourly Total	30	201	15	0	0	246	24	221	3	0	0	248	16	23	33	0	0	72	0	32	42	0	0	74	640
12:00 PM	6	45	7	0	0	58	8	45	0	0	0	53	1	7	10	0	0	18	0	7	6	0	0	13	142
12:15 PM	11	55	2	0	0	68	8	64	1	0	0	73	2	8	3	0	0	13	0	3	9	0	0	12	166
12:30 PM	11	43	7	0	0	61	8	60	0	0	0	68	3	9	10	0	0	22	0	7	11	0	0	18	169
12:45 PM	9	50	2	0	0	61	11	55	0	1	0	67	5	8	9	0	0	22	2	13	2	0	0	17	167
Hourly Total	37	193	18	0	0	248	35	224	1	1	0	261	11	32	32	0	0	75	2	30	28	0	0	60	644
1:00 PM	9	40	4	0	0	53	10	61	0	0	0	71	6	8	6	0	0	20	1	7	13	0	0	21	165
1:15 PM	10	63	5	0	0	78	8	70	1	0	0	79	4	9	11	0	0	24	0	5	10	0	0	15	196
1:30 PM	9	45	5	0	1	59	6	65	0	0	1	71	3	6	14	0	0	23	0	4	11	0	1	15	168
1:45 PM	14	45	2	0	0	61	9	56	1	0	0	66	1	8	11	0	0	20	0	11	11	0	0	22	169
Hourly Total	42	193	16	0	1	251	33	252	2	0	1	287	14	31	42	0	0	87	1	27	45	0	1	73	698

2:00 PM	8	47	5	0	0	60	7	64	0	0	0	71	3	13	7	0	0	23	1	3	11	0	0	15	169
2:15 PM	17	73	4	0	0	94	12	59	0	0	0	71	3	7	12	0	0	22	0	13	9	0	0	22	209
2:30 PM	15	69	3	0	0	87	4	77	0	0	0	81	2	14	8	0	0	24	1	5	16	0	0	22	214
2:45 PM	11	72	4	0	0	87	7	76	0	0	0	83	2	8	11	0	0	21	0	8	11	0	0	19	210
Hourly Total	51	261	16	0	0	328	30	276	0	0	0	306	10	42	38	0	0	90	2	29	47	0	0	78	802
3:00 PM	23	60	7	0	0	90	7	79	0	0	0	86	5	12	14	0	0	31	0	9	15	0	0	24	231
3:15 PM	19	71	6	0	0	96	10	102	0	0	0	112	9	17	21	0	0	47	2	12	21	0	0	35	290
3:30 PM	25	73	7	0	0	105	8	109	0	0	0	117	5	12	23	0	0	40	0	10	23	0	0	33	295
3:45 PM	23	85	3	0	0	111	11	109	1	0	0	121	6	17	19	0	0	42	0	7	19	0	0	26	300
Hourly Total	90	289	23	0	0	402	36	399	1	0	0	436	25	58	77	0	0	160	2	38	78	0	0	118	1116
4:00 PM	35	100	2	0	0	137	13	132	0	0	0	145	7	23	22	0	0	52	0	2	19	0	0	21	355
4:15 PM	20	99	3	0	0	122	16	155	0	0	0	171	4	19	29	0	0	52	1	15	20	0	0	36	381
4:30 PM	23	105	9	0	0	137	12	140	1	0	0	153	7	13	19	0	0	39	0	9	19	0	0	28	357
4:45 PM	26	97	6	0	0	129	19	159	1	0	0	179	7	17	19	0	0	43	0	10	28	0	0	38	389
Hourly Total	104	401	20	0	0	525	60	586	2	0	0	648	25	72	89	0	0	186	1	36	86	0	0	123	1482
5:00 PM	24	85	4	0	0	113	14	139	0	0	0	153	9	15	20	0	0	44	0	8	16	0	0	24	334
5:15 PM	28	94	3	0	0	125	15	119	1	0	0	135	7	23	18	0	0	48	1	16	24	0	0	41	349
5:30 PM	33	84	4	0	0	121	10	103	2	0	0	115	4	16	17	0	0	37	0	9	17	0	0	26	299
5:45 PM	22	79	4	0	0	105	11	108	0	0	0	119	3	20	15	0	0	38	1	3	8	0	0	12	274
Hourly Total	107	342	15	0	0	464	50	469	3	0	0	522	23	74	70	0	0	167	2	36	65	0	0	103	1256
6:00 PM	27	71	5	0	0	103	6	92	0	0	0	98	1	10	15	0	0	26	0	3	8	0	0	11	238
6:15 PM	13	75	4	0	0	92	7	73	1	0	0	81	7	20	15	0	0	42	0	4	16	0	0	20	235
6:30 PM	25	66	9	0	0	100	7	50	0	0	0	57	3	10	14	0	0	27	0	9	10	0	0	19	203
6:45 PM	15	67	4	0	0	86	5	58	1	0	0	64	3	14	13	0	0	30	1	6	5	0	0	12	192
Hourly Total	80	279	22	0	0	381	25	273	2	0	0	300	14	54	57	0	0	125	1	22	39	0	0	62	868
Grand Total	694	3380	226	0	1	4300	453	3576	17	1	1	4047	177	503	595	0	0	1275	18	435	742	0	1	1195	10817
Approach %	16.1	78.6	5.3	0.0	-	-	11.2	88.4	0.4	0.0	-	-	13.9	39.5	46.7	0.0	-	-	1.5	36.4	62.1	0.0	-	-	-
Total %	6.4	31.2	2.1	0.0	-	39.8	4.2	33.1	0.2	0.0	-	37.4	1.6	4.7	5.5	0.0	-	11.8	0.2	4.0	6.9	0.0	-	11.0	-
Motorcycles	0	1	0	0	-	1	1	1	0	0	-	2	0	0	0	0	-	0	0	1	0	0	-	1	4
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.2	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.2	0.0	-	-	0.1	0.0
Cars & Light Goods	677	3174	213	0	-	4064	443	3329	13	1	-	3786	169	489	581	0	-	1239	12	427	727	0	-	1166	10255
% Cars & Light Goods	97.6	93.9	94.2	-	-	94.5	97.8	93.1	76.5	100.0	-	93.6	95.5	97.2	97.6	-	-	97.2	66.7	98.2	98.0	-	-	97.6	94.8
Buses	6	20	10	0	-	36	6	17	0	0	-	23	3	7	9	0	-	19	1	3	2	0	-	6	84
% Buses	0.9	0.6	4.4	-	-	0.8	1.3	0.5	0.0	0.0	-	0.6	1.7	1.4	1.5	-	-	1.5	5.6	0.7	0.3	-	-	0.5	0.8
Single-Unit Trucks	9	143	3	0	-	155	3	166	4	0	-	173	3	7	5	0	-	15	4	3	13	0	-	20	363
% Single-Unit Trucks	1.3	4.2	1.3	-	-	3.6	0.7	4.6	23.5	0.0	-	4.3	1.7	1.4	0.8	-	-	1.2	22.2	0.7	1.8	-	-	1.7	3.4
Articulated Trucks	1	40	0	0	-	41	0	63	0	0	-	63	2	0	0	0	-	2	1	0	0	0	-	1	107
% Articulated Trucks	0.1	1.2	0.0	-	-	1.0	0.0	1.8	0.0	0.0	-	1.6	1.1	0.0	0.0	-	-	0.2	5.6	0.0	0.0	-	-	0.1	1.0
Bicycles on Road	1	2	0	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	4
% Bicycles on Road	0.1	0.1	0.0	-	-	0.1	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.2	0.0	-	-	0.1	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	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: Queensville Side Road & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024



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: Queensville Side Road & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024

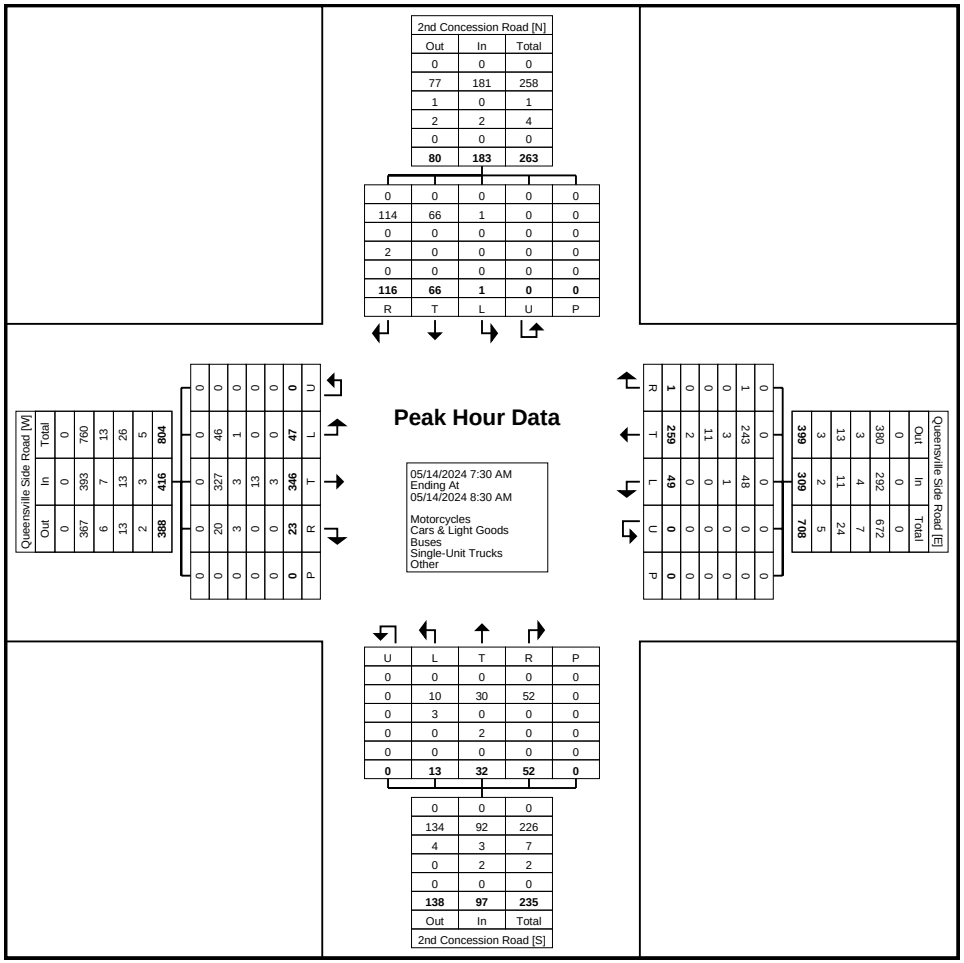
Turning Movement Peak Hour Data (7:30 AM)

Start Time	Queensville Side Road Eastbound						Queensville Side Road Westbound						2nd Concession Road Northbound						2nd Concession 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	
7:30 AM	13	76	6	0	0	95	15	80	0	0	0	95	3	9	8	0	0	20	0	9	37	0	0	46	256
7:45 AM	9	87	6	0	0	102	9	52	0	0	0	61	3	8	10	0	0	21	0	17	22	0	0	39	223
8:00 AM	11	93	6	0	0	110	12	66	1	0	0	79	3	7	15	0	0	25	1	21	35	0	0	57	271
8:15 AM	14	90	5	0	0	109	13	61	0	0	0	74	4	8	19	0	0	31	0	19	22	0	0	41	255
Total	47	346	23	0	0	416	49	259	1	0	0	309	13	32	52	0	0	97	1	66	116	0	0	183	1005
Approach %	11.3	83.2	5.5	0.0	-	-	15.9	83.8	0.3	0.0	-	-	13.4	33.0	53.6	0.0	-	-	0.5	36.1	63.4	0.0	-	-	-
Total %	4.7	34.4	2.3	0.0	-	41.4	4.9	25.8	0.1	0.0	-	30.7	1.3	3.2	5.2	0.0	-	9.7	0.1	6.6	11.5	0.0	-	18.2	-
PHF	0.839	0.930	0.958	0.000	-	0.945	0.817	0.809	0.250	0.000	-	0.813	0.813	0.889	0.684	0.000	-	0.782	0.250	0.786	0.784	0.000	-	0.803	0.927
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	46	327	20	0	-	393	48	243	1	0	-	292	10	30	52	0	-	92	1	66	114	0	-	181	958
% Cars & Light Goods	97.9	94.5	87.0	-	-	94.5	98.0	93.8	100.0	-	-	94.5	76.9	93.8	100.0	-	-	94.8	100.0	100.0	98.3	-	-	98.9	95.3
Buses	1	3	3	0	-	7	1	3	0	0	-	4	3	0	0	0	-	3	0	0	0	0	-	0	14
% Buses	2.1	0.9	13.0	-	-	1.7	2.0	1.2	0.0	-	-	1.3	23.1	0.0	0.0	-	-	3.1	0.0	0.0	0.0	-	-	0.0	1.4
Single-Unit Trucks	0	13	0	0	-	13	0	11	0	0	-	11	0	2	0	0	-	2	0	0	2	0	-	2	28
% Single-Unit Trucks	0.0	3.8	0.0	-	-	3.1	0.0	4.2	0.0	-	-	3.6	0.0	6.3	0.0	-	-	2.1	0.0	0.0	1.7	-	-	1.1	2.8
Articulated Trucks	0	3	0	0	-	3	0	2	0	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	5
% Articulated Trucks	0.0	0.9	0.0	-	-	0.7	0.0	0.8	0.0	-	-	0.6	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.5
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: Queensville Side Road & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024



Turning Movement Peak Hour Data Plot (7:30 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Queensville Side Road & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024

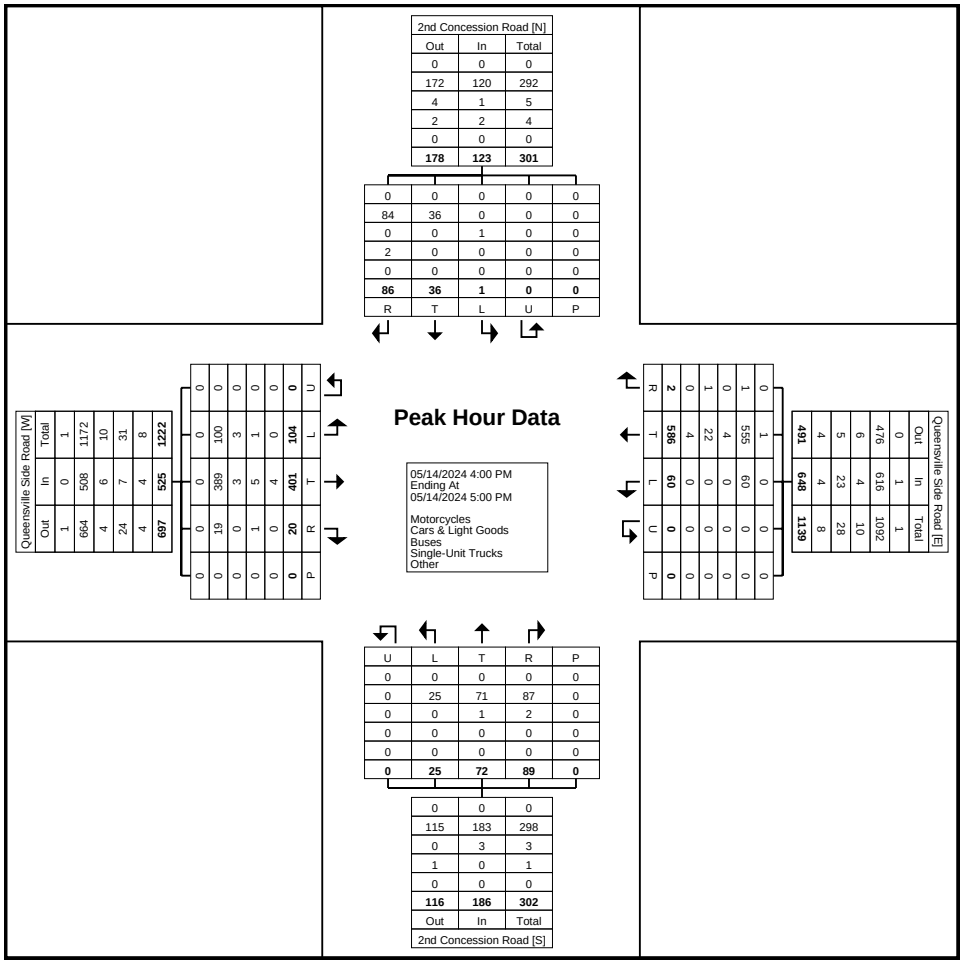
Turning Movement Peak Hour Data (4:00 PM)

Start Time	Queensville Side Road Eastbound						Queensville Side Road Westbound						2nd Concession Road Northbound						2nd Concession 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	
4:00 PM	35	100	2	0	0	137	13	132	0	0	0	145	7	23	22	0	0	52	0	2	19	0	0	21	355
4:15 PM	20	99	3	0	0	122	16	155	0	0	0	171	4	19	29	0	0	52	1	15	20	0	0	36	381
4:30 PM	23	105	9	0	0	137	12	140	1	0	0	153	7	13	19	0	0	39	0	9	19	0	0	28	357
4:45 PM	26	97	6	0	0	129	19	159	1	0	0	179	7	17	19	0	0	43	0	10	28	0	0	38	389
Total	104	401	20	0	0	525	60	586	2	0	0	648	25	72	89	0	0	186	1	36	86	0	0	123	1482
Approach %	19.8	76.4	3.8	0.0	-	-	9.3	90.4	0.3	0.0	-	-	13.4	38.7	47.8	0.0	-	-	0.8	29.3	69.9	0.0	-	-	-
Total %	7.0	27.1	1.3	0.0	-	35.4	4.0	39.5	0.1	0.0	-	43.7	1.7	4.9	6.0	0.0	-	12.6	0.1	2.4	5.8	0.0	-	8.3	-
PHF	0.743	0.955	0.556	0.000	-	0.958	0.789	0.921	0.500	0.000	-	0.905	0.893	0.783	0.767	0.000	-	0.894	0.250	0.600	0.768	0.000	-	0.809	0.952
Motorcycles	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.2	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.1
Cars & Light Goods	100	389	19	0	-	508	60	555	1	0	-	616	25	71	87	0	-	183	0	36	84	0	-	120	1427
% Cars & Light Goods	96.2	97.0	95.0	-	-	96.8	100.0	94.7	50.0	-	-	95.1	100.0	98.6	97.8	-	-	98.4	0.0	100.0	97.7	-	-	97.6	96.3
Buses	3	3	0	0	-	6	0	4	0	0	-	4	0	1	2	0	-	3	1	0	0	0	-	1	14
% Buses	2.9	0.7	0.0	-	-	1.1	0.0	0.7	0.0	-	-	0.6	0.0	1.4	2.2	-	-	1.6	100.0	0.0	0.0	-	-	0.8	0.9
Single-Unit Trucks	1	5	1	0	-	7	0	22	1	0	-	23	0	0	0	0	-	0	0	0	2	0	-	2	32
% Single-Unit Trucks	1.0	1.2	5.0	-	-	1.3	0.0	3.8	50.0	-	-	3.5	0.0	0.0	0.0	-	-	0.0	0.0	0.0	2.3	-	-	1.6	2.2
Articulated Trucks	0	4	0	0	-	4	0	4	0	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	8
% Articulated Trucks	0.0	1.0	0.0	-	-	0.8	0.0	0.7	0.0	-	-	0.6	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.5
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: Queensville Side Road & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024



Turning Movement Peak Hour Data Plot (4:00 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Queensville Sideroad & Leslie Street
Site Code: 230671
Start Date: 05/14/2024

Turning Movement Data

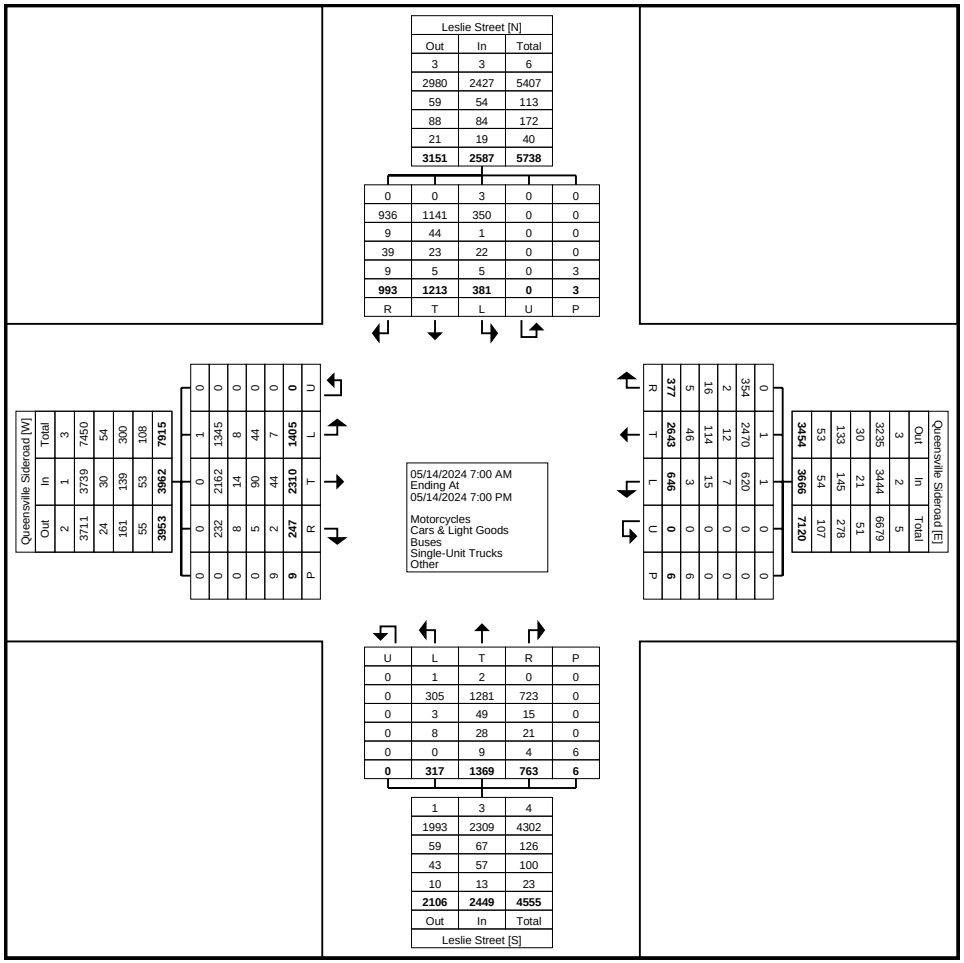
Start Time	Queensville Sideroad Eastbound						Queensville Sideroad Westbound						Leslie Street Northbound						Leslie Street Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	32	69	5	0	0	106	10	45	3	0	0	58	1	15	22	0	0	38	10	33	25	0	0	68	270
7:15 AM	14	71	15	0	0	100	7	59	1	0	0	67	7	12	21	0	0	40	7	31	28	0	0	66	273
7:30 AM	17	55	3	0	0	75	6	36	6	0	0	48	10	19	19	0	0	48	16	26	34	0	0	76	247
7:45 AM	17	67	9	0	0	93	6	43	5	0	0	54	2	13	27	0	0	42	20	38	16	0	0	74	263
Hourly Total	80	262	32	0	0	374	29	183	15	0	0	227	20	59	89	0	0	168	53	128	103	0	0	284	1053
8:00 AM	20	83	9	0	0	112	14	42	8	0	0	64	5	12	28	0	0	45	17	33	27	0	0	77	298
8:15 AM	32	66	10	0	1	108	16	30	10	0	3	56	7	19	25	0	0	51	11	36	34	0	1	81	296
8:30 AM	36	68	10	0	0	114	13	33	6	0	0	52	5	25	39	0	0	69	6	44	20	0	0	70	305
8:45 AM	16	56	6	0	1	78	12	41	4	0	0	57	4	24	29	0	0	57	12	26	18	0	1	56	248
Hourly Total	104	273	35	0	2	412	55	146	28	0	3	229	21	80	121	0	0	222	46	139	99	0	2	284	1147
9:00 AM	18	57	11	0	1	86	10	46	5	0	0	61	4	22	15	0	0	41	7	28	17	0	0	52	240
9:15 AM	24	57	8	0	0	89	14	42	3	0	0	59	2	30	8	0	0	40	6	30	15	0	0	51	239
9:30 AM	16	49	9	0	0	74	9	39	2	0	1	50	6	16	18	0	0	40	8	21	16	0	0	45	209
9:45 AM	21	49	4	0	0	74	7	35	6	0	0	48	3	15	16	0	0	34	4	26	20	0	0	50	206
Hourly Total	79	212	32	0	1	323	40	162	16	0	1	218	15	83	57	0	0	155	25	105	68	0	0	198	894
10:00 AM	26	34	5	0	0	65	8	28	10	0	0	46	5	21	12	0	0	38	7	32	11	0	0	50	199
10:15 AM	26	55	2	0	0	83	9	35	6	0	0	50	7	24	20	0	0	51	9	16	15	0	0	40	224
10:30 AM	21	52	2	0	0	75	12	21	11	0	0	44	7	28	14	0	0	49	14	21	21	0	1	56	224
10:45 AM	27	32	4	0	0	63	10	35	5	0	0	50	10	31	12	0	0	53	8	26	13	0	0	47	213
Hourly Total	100	173	13	0	0	286	39	119	32	0	0	190	29	104	58	0	0	191	38	95	60	0	1	193	860
11:00 AM	16	42	2	0	0	60	11	32	11	0	0	54	3	27	17	0	0	47	7	20	21	0	0	48	209
11:15 AM	27	31	2	0	0	60	11	43	5	0	0	59	2	17	8	0	0	27	4	26	19	0	0	49	195
11:30 AM	14	31	3	0	0	48	9	33	6	0	0	48	3	29	16	0	1	48	10	26	18	0	0	54	198
11:45 AM	16	45	2	0	0	63	12	38	4	0	0	54	3	13	14	0	0	30	5	30	25	0	0	60	207
Hourly Total	73	149	9	0	0	231	43	146	26	0	0	215	11	86	55	0	1	152	26	102	83	0	0	211	809
12:00 PM	26	27	2	0	0	55	7	27	6	0	0	40	4	28	9	0	1	41	9	20	16	0	0	45	181
12:15 PM	19	37	2	0	0	58	12	50	7	0	0	69	1	17	9	0	0	27	6	23	17	0	0	46	200
12:30 PM	18	27	3	0	0	48	8	34	5	0	0	47	5	20	13	0	0	38	3	21	26	0	0	50	183
12:45 PM	20	35	6	0	0	61	7	46	11	0	0	64	3	22	12	0	0	37	8	35	19	0	0	62	224
Hourly Total	83	126	13	0	0	222	34	157	29	0	0	220	13	87	43	0	1	143	26	99	78	0	0	203	788
1:00 PM	21	30	3	0	0	54	11	51	5	0	0	67	6	27	8	0	0	41	2	26	18	0	0	46	208
1:15 PM	25	38	2	0	0	65	12	51	7	0	0	70	6	30	2	0	0	38	12	35	19	0	0	66	239
1:30 PM	20	34	7	0	0	61	10	48	9	0	0	67	5	21	15	0	0	41	11	21	19	0	0	51	220
1:45 PM	20	31	3	0	0	54	14	40	7	0	0	61	4	30	23	0	0	57	8	22	23	0	0	53	225
Hourly Total	86	133	15	0	0	234	47	190	28	0	0	265	21	108	48	0	0	177	33	104	79	0	0	216	892

2:00 PM	21	31	2	0	0	54	7	48	4	0	0	59	7	23	11	0	0	41	5	16	15	0	0	36	190
2:15 PM	31	49	4	0	0	84	9	48	6	0	0	63	3	35	12	0	0	50	8	30	20	0	0	58	255
2:30 PM	24	48	3	0	0	75	13	41	9	0	0	63	10	34	9	0	0	53	12	30	33	0	0	75	266
2:45 PM	30	49	9	0	0	88	16	55	7	0	0	78	5	29	17	0	0	51	5	25	17	0	0	47	264
Hourly Total	106	177	18	0	0	301	45	192	26	0	0	263	25	121	49	0	0	195	30	101	85	0	0	216	975
3:00 PM	35	41	3	0	1	79	9	66	12	0	0	87	15	47	13	0	0	75	5	27	13	0	0	45	286
3:15 PM	36	39	6	0	1	81	14	87	14	0	0	115	11	52	21	0	2	84	8	37	24	0	0	69	349
3:30 PM	41	57	8	0	0	106	11	77	10	0	1	98	9	35	15	0	0	59	11	28	31	0	0	70	333
3:45 PM	44	42	1	0	1	87	17	90	12	0	0	119	12	51	28	0	0	91	7	17	15	0	0	39	336
Hourly Total	156	179	18	0	3	353	51	320	48	0	1	419	47	185	77	0	2	309	31	109	83	0	0	223	1304
4:00 PM	44	59	9	0	0	112	19	101	13	0	0	133	14	49	21	0	0	84	8	28	18	0	0	54	383
4:15 PM	65	70	4	0	0	139	20	128	8	0	0	156	12	54	14	0	0	80	10	25	23	0	0	58	433
4:30 PM	52	65	5	0	1	122	21	116	10	0	0	147	8	49	14	0	1	71	8	23	26	0	0	57	397
4:45 PM	37	60	3	0	0	100	22	119	17	0	0	158	13	43	15	0	0	71	4	9	29	0	0	42	371
Hourly Total	198	254	21	0	1	473	82	464	48	0	0	594	47	195	64	0	1	306	30	85	96	0	0	211	1584
5:00 PM	43	63	8	0	0	114	24	106	16	0	0	146	21	41	13	0	1	75	4	16	23	0	0	43	378
5:15 PM	51	58	3	0	0	112	24	97	13	0	0	134	5	44	14	0	0	63	10	25	28	0	0	63	372
5:30 PM	47	52	0	0	1	99	32	91	9	0	0	132	8	32	10	0	0	50	3	22	17	0	0	42	323
5:45 PM	50	42	4	0	0	96	23	77	7	0	0	107	10	30	12	0	0	52	2	19	19	0	0	40	295
Hourly Total	191	215	15	0	1	421	103	371	45	0	0	519	44	147	49	0	1	240	19	82	87	0	0	188	1368
6:00 PM	35	37	2	0	1	74	21	64	13	0	0	98	10	26	15	0	0	51	5	16	21	0	0	42	265
6:15 PM	40	40	11	0	0	91	25	53	6	0	0	84	9	32	10	0	0	51	6	16	19	0	0	41	267
6:30 PM	40	32	7	0	0	79	15	42	9	0	1	66	2	35	13	0	0	50	7	19	15	0	0	41	236
6:45 PM	34	48	6	0	0	88	17	34	8	0	0	59	3	21	15	0	0	39	6	13	17	0	0	36	222
Hourly Total	149	157	26	0	1	332	78	193	36	0	1	307	24	114	53	0	0	191	24	64	72	0	0	160	990
Grand Total	1405	2310	247	0	9	3962	646	2643	377	0	6	3666	317	1369	763	0	6	2449	381	1213	993	0	3	2587	12664
Approach %	35.5	58.3	6.2	0.0	-	-	17.6	72.1	10.3	0.0	-	-	12.9	55.9	31.2	0.0	-	-	14.7	46.9	38.4	0.0	-	-	-
Total %	11.1	18.2	2.0	0.0	-	31.3	5.1	20.9	3.0	0.0	-	28.9	2.5	10.8	6.0	0.0	-	19.3	3.0	9.6	7.8	0.0	-	20.4	-
Motorcycles	1	0	0	0	-	1	1	1	0	0	-	2	1	2	0	0	-	3	3	0	0	0	-	3	9
% Motorcycles	0.1	0.0	0.0	-	-	0.0	0.2	0.0	0.0	-	-	0.1	0.3	0.1	0.0	-	-	0.1	0.8	0.0	0.0	-	-	0.1	0.1
Cars & Light Goods	1345	2162	232	0	-	3739	620	2470	354	0	-	3444	305	1281	723	0	-	2309	350	1141	936	0	-	2427	11919
% Cars & Light Goods	95.7	93.6	93.9	-	-	94.4	96.0	93.5	93.9	-	-	93.9	96.2	93.6	94.8	-	-	94.3	91.9	94.1	94.3	-	-	93.8	94.1
Buses	8	14	8	0	-	30	7	12	2	0	-	21	3	49	15	0	-	67	1	44	9	0	-	54	172
% Buses	0.6	0.6	3.2	-	-	0.8	1.1	0.5	0.5	-	-	0.6	0.9	3.6	2.0	-	-	2.7	0.3	3.6	0.9	-	-	2.1	1.4
Single-Unit Trucks	44	90	5	0	-	139	15	114	16	0	-	145	8	28	21	0	-	57	22	23	39	0	-	84	425
% Single-Unit Trucks	3.1	3.9	2.0	-	-	3.5	2.3	4.3	4.2	-	-	4.0	2.5	2.0	2.8	-	-	2.3	5.8	1.9	3.9	-	-	3.2	3.4
Articulated Trucks	7	43	2	0	-	52	3	46	5	0	-	54	0	8	4	0	-	12	5	5	9	0	-	19	137
% Articulated Trucks	0.5	1.9	0.8	-	-	1.3	0.5	1.7	1.3	-	-	1.5	0.0	0.6	0.5	-	-	0.5	1.3	0.4	0.9	-	-	0.7	1.1
Bicycles on Road	0	1	0	0	-	1	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	2
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.1	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	16.7	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	9	-	-	-	-	-	5	-	-	-	-	-	6	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	83.3	-	-	-	-	-	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: Queensville Sideroad & Leslie Street
Site Code: 230671
Start Date: 05/14/2024



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: Queensville Sideroad & Leslie Street
Site Code: 230671
Start Date: 05/14/2024

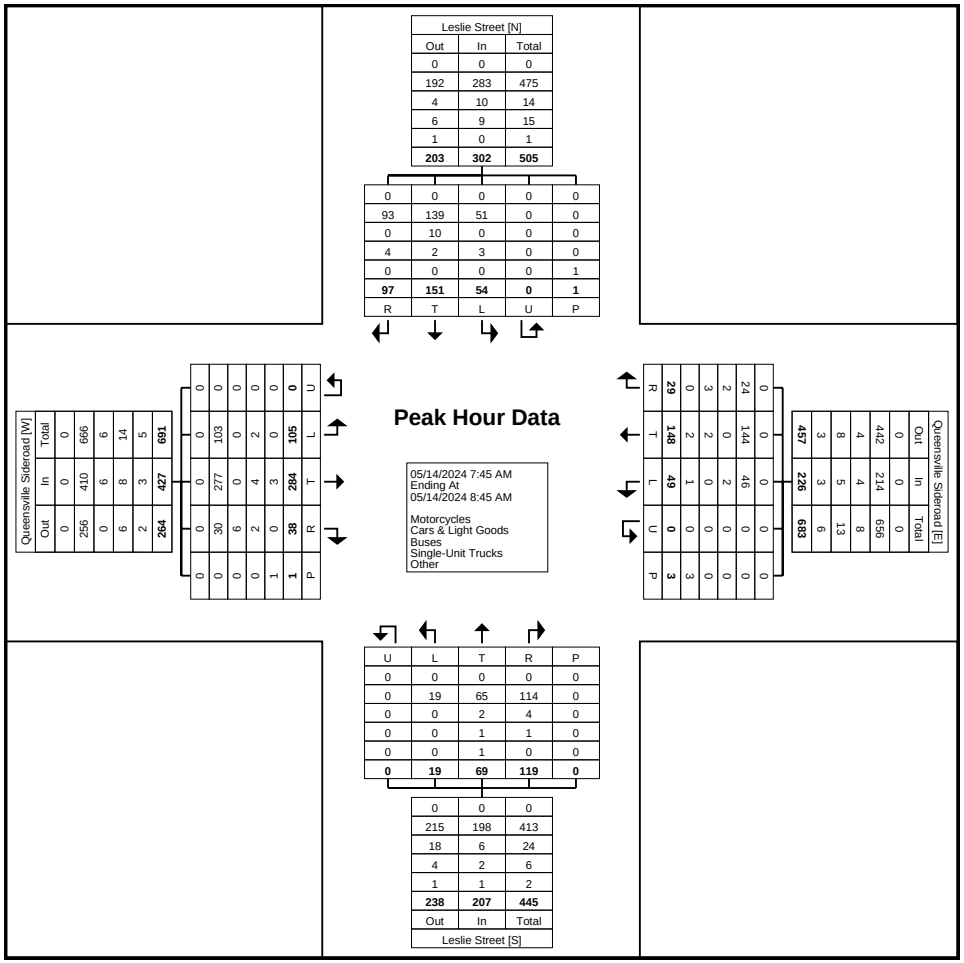
Turning Movement Peak Hour Data (7:45 AM)

Start Time	Queensville Sideroad Eastbound						Queensville Sideroad Westbound						Leslie Street Northbound						Leslie 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	
7:45 AM	17	67	9	0	0	93	6	43	5	0	0	54	2	13	27	0	0	42	20	38	16	0	0	74	263
8:00 AM	20	83	9	0	0	112	14	42	8	0	0	64	5	12	28	0	0	45	17	33	27	0	0	77	298
8:15 AM	32	66	10	0	1	108	16	30	10	0	3	56	7	19	25	0	0	51	11	36	34	0	1	81	296
8:30 AM	36	68	10	0	0	114	13	33	6	0	0	52	5	25	39	0	0	69	6	44	20	0	0	70	305
Total	105	284	38	0	1	427	49	148	29	0	3	226	19	69	119	0	0	207	54	151	97	0	1	302	1162
Approach %	24.6	66.5	8.9	0.0	-	-	21.7	65.5	12.8	0.0	-	-	9.2	33.3	57.5	0.0	-	-	17.9	50.0	32.1	0.0	-	-	-
Total %	9.0	24.4	3.3	0.0	-	36.7	4.2	12.7	2.5	0.0	-	19.4	1.6	5.9	10.2	0.0	-	17.8	4.6	13.0	8.3	0.0	-	26.0	-
PHF	0.729	0.855	0.950	0.000	-	0.936	0.766	0.860	0.725	0.000	-	0.883	0.679	0.690	0.763	0.000	-	0.750	0.675	0.858	0.713	0.000	-	0.932	0.952
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	103	277	30	0	-	410	46	144	24	0	-	214	19	65	114	0	-	198	51	139	93	0	-	283	1105
% Cars & Light Goods	98.1	97.5	78.9	-	-	96.0	93.9	97.3	82.8	-	-	94.7	100.0	94.2	95.8	-	-	95.7	94.4	92.1	95.9	-	-	93.7	95.1
Buses	0	0	6	0	-	6	2	0	2	0	-	4	0	2	4	0	-	6	0	10	0	0	-	10	26
% Buses	0.0	0.0	15.8	-	-	1.4	4.1	0.0	6.9	-	-	1.8	0.0	2.9	3.4	-	-	2.9	0.0	6.6	0.0	-	-	3.3	2.2
Single-Unit Trucks	2	4	2	0	-	8	0	2	3	0	-	5	0	1	1	0	-	2	3	2	4	0	-	9	24
% Single-Unit Trucks	1.9	1.4	5.3	-	-	1.9	0.0	1.4	10.3	-	-	2.2	0.0	1.4	0.8	-	-	1.0	5.6	1.3	4.1	-	-	3.0	2.1
Articulated Trucks	0	3	0	0	-	3	1	2	0	0	-	3	0	1	0	0	-	1	0	0	0	0	-	0	7
% Articulated Trucks	0.0	1.1	0.0	-	-	0.7	2.0	1.4	0.0	-	-	1.3	0.0	1.4	0.0	-	-	0.5	0.0	0.0	0.0	-	-	0.0	0.6
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	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	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: Queensville Sideroad & Leslie Street
Site Code: 230671
Start Date: 05/14/2024



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 cbowness@ptsl.com

Count Name: Queensville Sideroad & Leslie Street
Site Code: 230671
Start Date: 05/14/2024

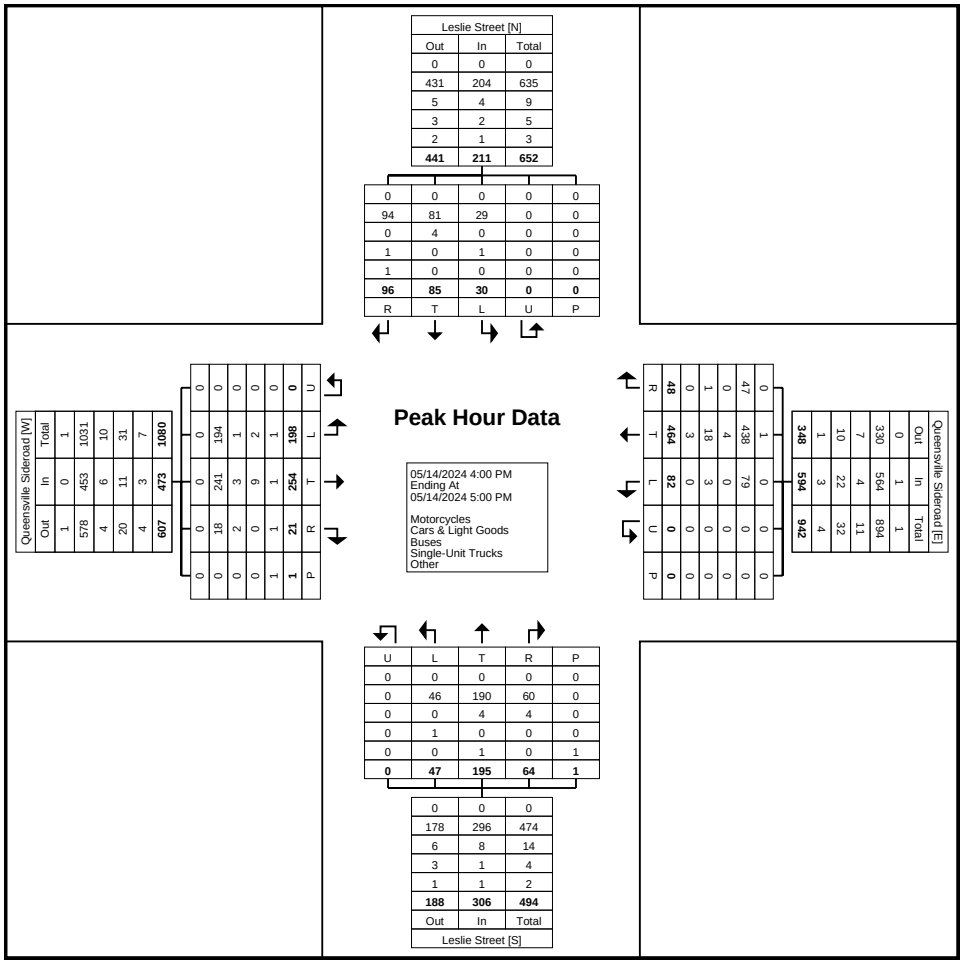
Turning Movement Peak Hour Data (4:00 PM)

Start Time	Queensville Sideroad Eastbound						Queensville Sideroad Westbound						Leslie Street Northbound						Leslie 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
4:00 PM	44	59	9	0	0	112	19	101	13	0	0	133	14	49	21	0	0	84	8	28	18	0	0	54	383
4:15 PM	65	70	4	0	0	139	20	128	8	0	0	156	12	54	14	0	0	80	10	25	23	0	0	58	433
4:30 PM	52	65	5	0	1	122	21	116	10	0	0	147	8	49	14	0	1	71	8	23	26	0	0	57	397
4:45 PM	37	60	3	0	0	100	22	119	17	0	0	158	13	43	15	0	0	71	4	9	29	0	0	42	371
Total	198	254	21	0	1	473	82	464	48	0	0	594	47	195	64	0	1	306	30	85	96	0	0	211	1584
Approach %	41.9	53.7	4.4	0.0	-	-	13.8	78.1	8.1	0.0	-	-	15.4	63.7	20.9	0.0	-	-	14.2	40.3	45.5	0.0	-	-	-
Total %	12.5	16.0	1.3	0.0	-	29.9	5.2	29.3	3.0	0.0	-	37.5	3.0	12.3	4.0	0.0	-	19.3	1.9	5.4	6.1	0.0	-	13.3	-
PHF	0.762	0.907	0.583	0.000	-	0.851	0.932	0.906	0.706	0.000	-	0.940	0.839	0.903	0.762	0.000	-	0.911	0.750	0.759	0.828	0.000	-	0.909	0.915
Motorcycles	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.2	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.1
Cars & Light Goods	194	241	18	0	-	453	79	438	47	0	-	564	46	190	60	0	-	296	29	81	94	0	-	204	1517
% Cars & Light Goods	98.0	94.9	85.7	-	-	95.8	96.3	94.4	97.9	-	-	94.9	97.9	97.4	93.8	-	-	96.7	96.7	95.3	97.9	-	-	96.7	95.8
Buses	1	3	2	0	-	6	0	4	0	0	-	4	0	4	4	0	-	8	0	4	0	0	-	4	22
% Buses	0.5	1.2	9.5	-	-	1.3	0.0	0.9	0.0	-	-	0.7	0.0	2.1	6.3	-	-	2.6	0.0	4.7	0.0	-	-	1.9	1.4
Single-Unit Trucks	2	9	0	0	-	11	3	18	1	0	-	22	1	0	0	0	-	1	1	0	1	0	-	2	36
% Single-Unit Trucks	1.0	3.5	0.0	-	-	2.3	3.7	3.9	2.1	-	-	3.7	2.1	0.0	0.0	-	-	0.3	3.3	0.0	1.0	-	-	0.9	2.3
Articulated Trucks	1	1	1	0	-	3	0	3	0	0	-	3	0	1	0	0	-	1	0	0	1	0	-	1	8
% Articulated Trucks	0.5	0.4	4.8	-	-	0.6	0.0	0.6	0.0	-	-	0.5	0.0	0.5	0.0	-	-	0.3	0.0	0.0	1.0	-	-	0.5	0.5
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	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	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: Queensville Sideroad & Leslie Street
Site Code: 230671
Start Date: 05/14/2024



Turning Movement Peak Hour Data Plot (4:00 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Queensville Sideroad & Yonge Street
Site Code: 230671
Start Date: 05/14/2024

Turning Movement Data

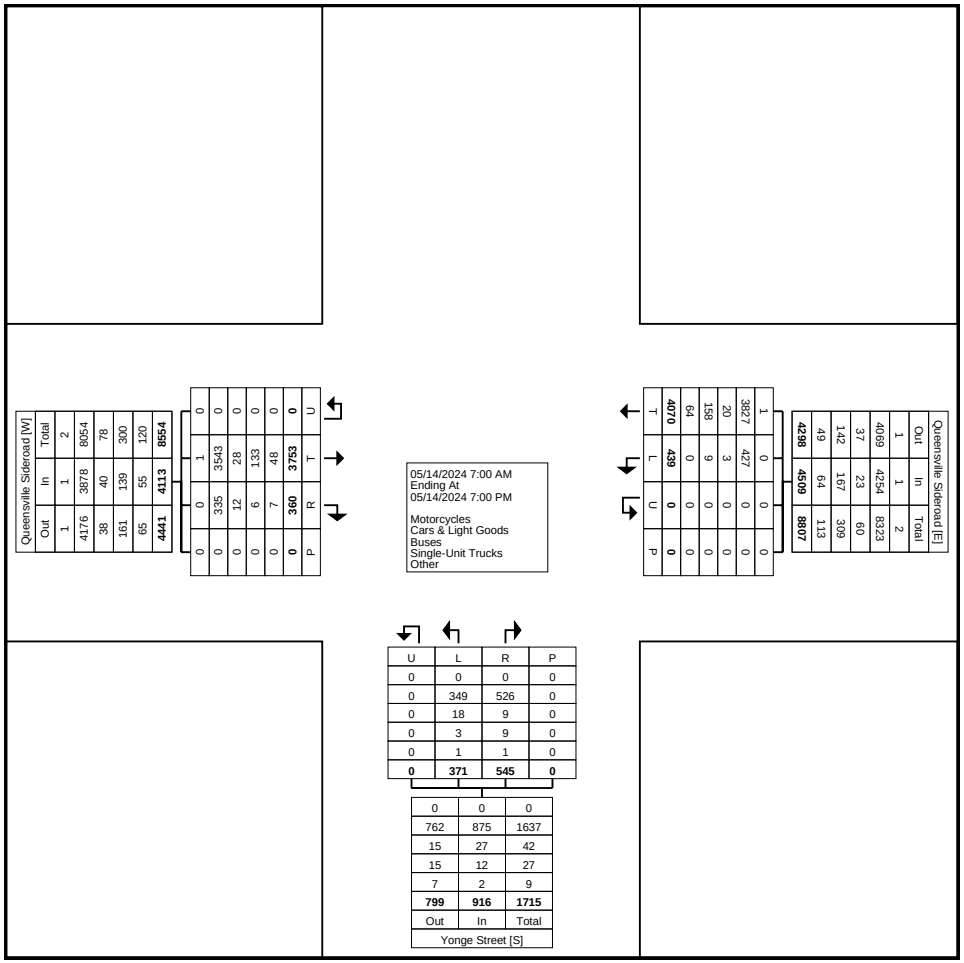
Start Time	Queensville Sideroad Eastbound					Queensville Sideroad Westbound					Yonge Street Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
7:00 AM	117	9	0	0	126	8	85	0	0	93	5	9	0	0	14	233
7:15 AM	98	8	0	0	106	10	99	0	0	109	4	6	0	0	10	225
7:30 AM	89	8	0	0	97	13	104	0	0	117	4	7	0	0	11	225
7:45 AM	88	10	0	0	98	7	68	0	0	75	4	6	0	0	10	183
Hourly Total	392	35	0	0	427	38	356	0	0	394	17	28	0	0	45	866
8:00 AM	105	4	0	0	109	11	91	0	0	102	1	12	0	0	13	224
8:15 AM	101	5	0	0	106	7	87	0	0	94	4	10	0	0	14	214
8:30 AM	107	9	0	0	116	12	59	0	0	71	6	7	0	0	13	200
8:45 AM	59	4	0	0	63	4	62	0	0	66	5	12	0	0	17	146
Hourly Total	372	22	0	0	394	34	299	0	0	333	16	41	0	0	57	784
9:00 AM	86	3	0	0	89	5	69	0	0	74	7	11	0	0	18	181
9:15 AM	82	6	0	0	88	6	58	0	0	64	6	9	0	0	15	167
9:30 AM	57	7	0	0	64	10	55	0	0	65	6	9	0	0	15	144
9:45 AM	77	7	0	0	84	7	57	0	0	64	4	7	0	0	11	159
Hourly Total	302	23	0	0	325	28	239	0	0	267	23	36	0	0	59	651
10:00 AM	70	8	0	0	78	7	52	0	0	59	5	8	0	0	13	150
10:15 AM	62	9	0	0	71	9	59	0	0	68	6	10	0	0	16	155
10:30 AM	61	6	0	0	67	8	43	0	0	51	4	4	0	0	8	126
10:45 AM	61	7	0	0	68	7	50	0	0	57	7	11	0	0	18	143
Hourly Total	254	30	0	0	284	31	204	0	0	235	22	33	0	0	55	574
11:00 AM	53	4	0	0	57	10	51	0	0	61	8	9	0	0	17	135
11:15 AM	59	7	0	0	66	9	65	0	0	74	5	9	0	0	14	154
11:30 AM	35	10	0	0	45	6	66	0	0	72	3	6	0	0	9	126
11:45 AM	64	4	0	0	68	6	67	0	0	73	3	10	0	0	13	154
Hourly Total	211	25	0	0	236	31	249	0	0	280	19	34	0	0	53	569
12:00 PM	53	8	0	0	61	6	48	0	0	54	5	7	0	0	12	127
12:15 PM	57	8	0	0	65	3	75	0	0	78	2	9	0	0	11	154
12:30 PM	42	3	0	0	45	11	63	0	0	74	4	12	0	0	16	135
12:45 PM	60	7	0	0	67	7	49	0	0	56	7	7	0	0	14	137
Hourly Total	212	26	0	0	238	27	235	0	0	262	18	35	0	0	53	553
1:00 PM	53	8	0	0	61	9	70	0	0	79	5	9	0	0	14	154
1:15 PM	67	9	0	0	76	7	73	0	0	80	15	13	0	0	28	184
1:30 PM	42	11	0	0	53	9	82	0	0	91	14	7	0	0	21	165
1:45 PM	54	8	0	0	62	7	57	0	0	64	5	8	0	0	13	139
Hourly Total	216	36	0	0	252	32	282	0	0	314	39	37	0	0	76	642
2:00 PM	51	4	0	0	55	5	81	0	0	86	3	8	0	0	11	152

2:15 PM	84	6	0	0	90	7	59	0	0	66	10	15	0	0	25	181
2:30 PM	71	6	0	0	77	8	87	0	0	95	11	11	0	0	22	194
2:45 PM	66	6	0	0	72	9	83	0	0	92	4	20	0	0	24	188
Hourly Total	272	22	0	0	294	29	310	0	0	339	28	54	0	0	82	715
3:00 PM	74	8	0	0	82	10	88	0	0	98	11	9	0	0	20	200
3:15 PM	90	8	0	0	98	15	104	0	0	119	16	19	0	0	35	252
3:30 PM	89	8	0	0	97	13	135	0	0	148	13	12	0	0	25	270
3:45 PM	104	8	0	0	112	12	126	0	0	138	12	15	0	0	27	277
Hourly Total	357	32	0	0	389	50	453	0	0	503	52	55	0	0	107	999
4:00 PM	113	11	0	0	124	16	129	0	0	145	12	21	0	0	33	302
4:15 PM	109	10	0	0	119	7	173	0	0	180	6	20	0	0	26	325
4:30 PM	114	6	0	0	120	14	159	0	0	173	16	18	0	0	34	327
4:45 PM	114	9	0	0	123	17	166	0	0	183	6	13	0	0	19	325
Hourly Total	450	36	0	0	486	54	627	0	0	681	40	72	0	0	112	1279
5:00 PM	96	7	0	0	103	7	165	0	0	172	14	15	0	0	29	304
5:15 PM	104	14	0	0	118	16	145	0	0	161	13	20	0	0	33	312
5:30 PM	102	14	0	0	116	10	111	0	0	121	15	25	0	0	40	277
5:45 PM	90	10	0	0	100	15	104	0	0	119	9	14	0	0	23	242
Hourly Total	392	45	0	0	437	48	525	0	0	573	51	74	0	0	125	1135
6:00 PM	84	6	0	0	90	11	89	0	0	100	11	14	0	0	25	215
6:15 PM	80	8	0	0	88	6	90	0	0	96	19	14	0	0	33	217
6:30 PM	92	9	0	0	101	7	60	0	0	67	9	7	0	0	16	184
6:45 PM	67	5	0	0	72	13	52	0	0	65	7	11	0	0	18	155
Hourly Total	323	28	0	0	351	37	291	0	0	328	46	46	0	0	92	771
Grand Total	3753	360	0	0	4113	439	4070	0	0	4509	371	545	0	0	916	9538
Approach %	91.2	8.8	0.0	-	-	9.7	90.3	0.0	-	-	40.5	59.5	0.0	-	-	-
Total %	39.3	3.8	0.0	-	43.1	4.6	42.7	0.0	-	47.3	3.9	5.7	0.0	-	9.6	-
Motorcycles	1	0	0	-	1	0	1	0	-	1	0	0	0	-	0	2
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	3543	335	0	-	3878	427	3827	0	-	4254	349	526	0	-	875	9007
% Cars & Light Goods	94.4	93.1	-	-	94.3	97.3	94.0	-	-	94.3	94.1	96.5	-	-	95.5	94.4
Buses	28	12	0	-	40	3	20	0	-	23	18	9	0	-	27	90
% Buses	0.7	3.3	-	-	1.0	0.7	0.5	-	-	0.5	4.9	1.7	-	-	2.9	0.9
Single-Unit Trucks	133	6	0	-	139	9	158	0	-	167	3	9	0	-	12	318
% Single-Unit Trucks	3.5	1.7	-	-	3.4	2.1	3.9	-	-	3.7	0.8	1.7	-	-	1.3	3.3
Articulated Trucks	45	1	0	-	46	0	64	0	-	64	0	0	0	-	0	110
% Articulated Trucks	1.2	0.3	-	-	1.1	0.0	1.6	-	-	1.4	0.0	0.0	-	-	0.0	1.2
Bicycles on Road	3	6	0	-	9	0	0	0	-	0	1	1	0	-	2	11
% Bicycles on Road	0.1	1.7	-	-	0.2	0.0	0.0	-	-	0.0	0.3	0.2	-	-	0.2	0.1
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	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: Queensville Sideroad & Yonge Street
Site Code: 230671
Start Date: 05/14/2024



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: Queensville Sideroad & Yonge Street
Site Code: 230671
Start Date: 05/14/2024

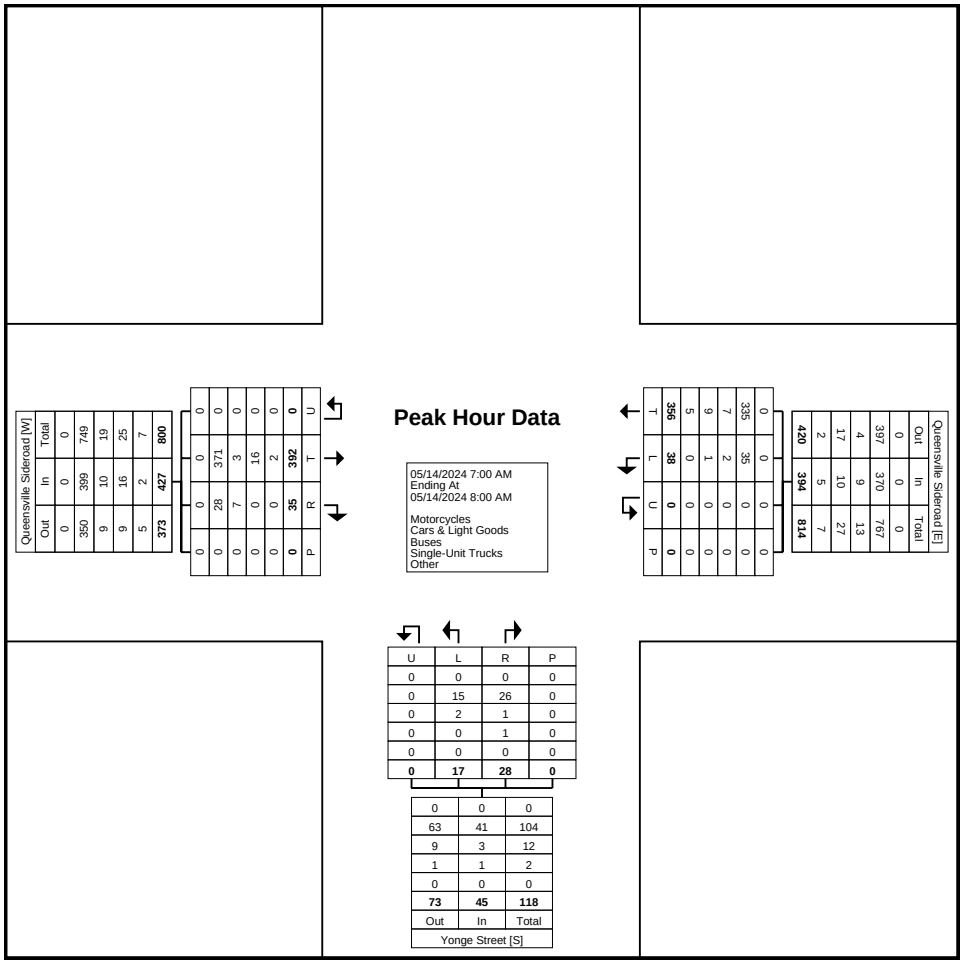
Turning Movement Peak Hour Data (7:00 AM)

Start Time	Queensville Sideroad Eastbound					Queensville Sideroad Westbound					Yonge Street Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
7:00 AM	117	9	0	0	126	8	85	0	0	93	5	9	0	0	14	233
7:15 AM	98	8	0	0	106	10	99	0	0	109	4	6	0	0	10	225
7:30 AM	89	8	0	0	97	13	104	0	0	117	4	7	0	0	11	225
7:45 AM	88	10	0	0	98	7	68	0	0	75	4	6	0	0	10	183
Total	392	35	0	0	427	38	356	0	0	394	17	28	0	0	45	866
Approach %	91.8	8.2	0.0	-	-	9.6	90.4	0.0	-	-	37.8	62.2	0.0	-	-	-
Total %	45.3	4.0	0.0	-	49.3	4.4	41.1	0.0	-	45.5	2.0	3.2	0.0	-	5.2	-
PHF	0.838	0.875	0.000	-	0.847	0.731	0.856	0.000	-	0.842	0.850	0.778	0.000	-	0.804	0.929
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
Cars & Light Goods	371	28	0	-	399	35	335	0	-	370	15	26	0	-	41	810
% Cars & Light Goods	94.6	80.0	-	-	93.4	92.1	94.1	-	-	93.9	88.2	92.9	-	-	91.1	93.5
Buses	3	7	0	-	10	2	7	0	-	9	2	1	0	-	3	22
% Buses	0.8	20.0	-	-	2.3	5.3	2.0	-	-	2.3	11.8	3.6	-	-	6.7	2.5
Single-Unit Trucks	16	0	0	-	16	1	9	0	-	10	0	1	0	-	1	27
% Single-Unit Trucks	4.1	0.0	-	-	3.7	2.6	2.5	-	-	2.5	0.0	3.6	-	-	2.2	3.1
Articulated Trucks	2	0	0	-	2	0	5	0	-	5	0	0	0	-	0	7
% Articulated Trucks	0.5	0.0	-	-	0.5	0.0	1.4	-	-	1.3	0.0	0.0	-	-	0.0	0.8
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	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: Queensville Sideroad & Yonge Street
Site Code: 230671
Start Date: 05/14/2024



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

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Queensville Sideroad & Yonge Street
Site Code: 230671
Start Date: 05/14/2024

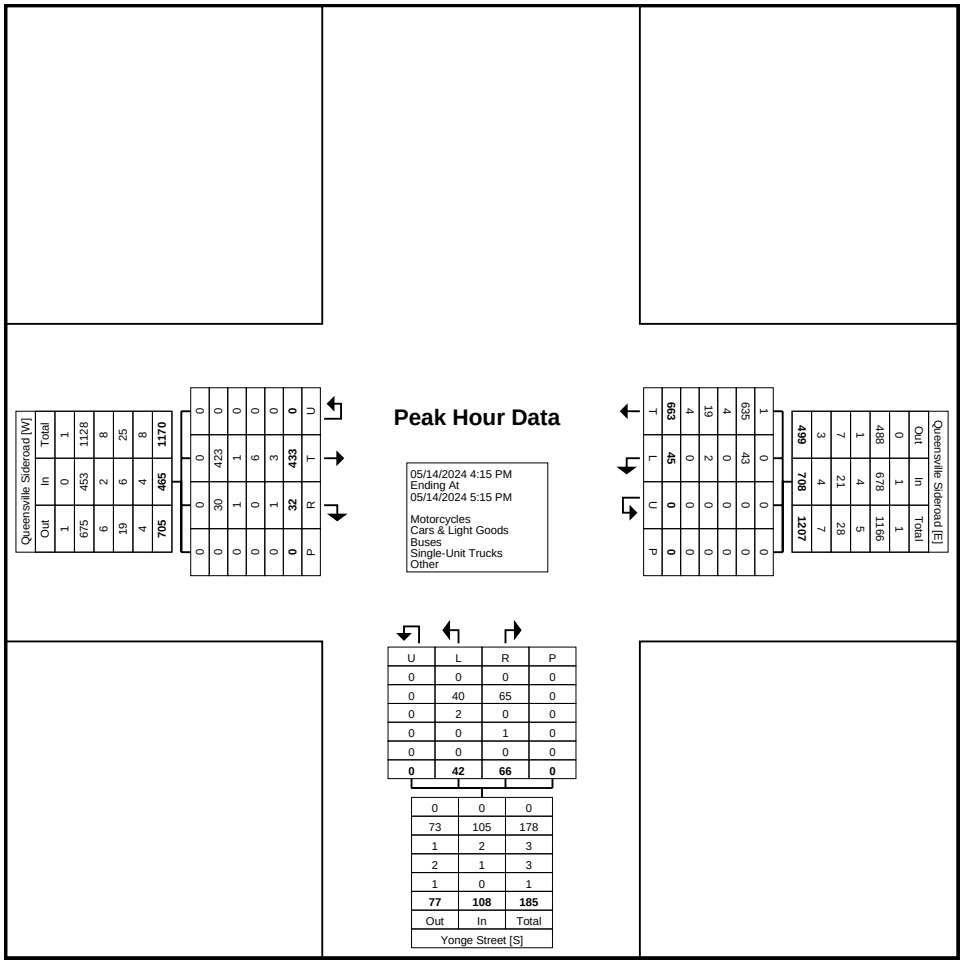
Turning Movement Peak Hour Data (4:15 PM)

Start Time	Queensville Sideroad Eastbound					Queensville Sideroad Westbound					Yonge Street Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
4:15 PM	109	10	0	0	119	7	173	0	0	180	6	20	0	0	26	325
4:30 PM	114	6	0	0	120	14	159	0	0	173	16	18	0	0	34	327
4:45 PM	114	9	0	0	123	17	166	0	0	183	6	13	0	0	19	325
5:00 PM	96	7	0	0	103	7	165	0	0	172	14	15	0	0	29	304
Total	433	32	0	0	465	45	663	0	0	708	42	66	0	0	108	1281
Approach %	93.1	6.9	0.0	-	-	6.4	93.6	0.0	-	-	38.9	61.1	0.0	-	-	-
Total %	33.8	2.5	0.0	-	36.3	3.5	51.8	0.0	-	55.3	3.3	5.2	0.0	-	8.4	-
PHF	0.950	0.800	0.000	-	0.945	0.662	0.958	0.000	-	0.967	0.656	0.825	0.000	-	0.794	0.979
Motorcycles	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.2	-	-	0.1	0.0	0.0	-	-	0.0	0.1
Cars & Light Goods	423	30	0	-	453	43	635	0	-	678	40	65	0	-	105	1236
% Cars & Light Goods	97.7	93.8	-	-	97.4	95.6	95.8	-	-	95.8	95.2	98.5	-	-	97.2	96.5
Buses	1	1	0	-	2	0	4	0	-	4	2	0	0	-	2	8
% Buses	0.2	3.1	-	-	0.4	0.0	0.6	-	-	0.6	4.8	0.0	-	-	1.9	0.6
Single-Unit Trucks	6	0	0	-	6	2	19	0	-	21	0	1	0	-	1	28
% Single-Unit Trucks	1.4	0.0	-	-	1.3	4.4	2.9	-	-	3.0	0.0	1.5	-	-	0.9	2.2
Articulated Trucks	2	0	0	-	2	0	4	0	-	4	0	0	0	-	0	6
% Articulated Trucks	0.5	0.0	-	-	0.4	0.0	0.6	-	-	0.6	0.0	0.0	-	-	0.0	0.5
Bicycles on Road	1	1	0	-	2	0	0	0	-	0	0	0	0	-	0	2
% Bicycles on Road	0.2	3.1	-	-	0.4	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.2
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	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: Queensville Sideroad & Yonge Street
Site Code: 230671
Start Date: 05/14/2024



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: Silk Twist Drive & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024

Turning Movement Data

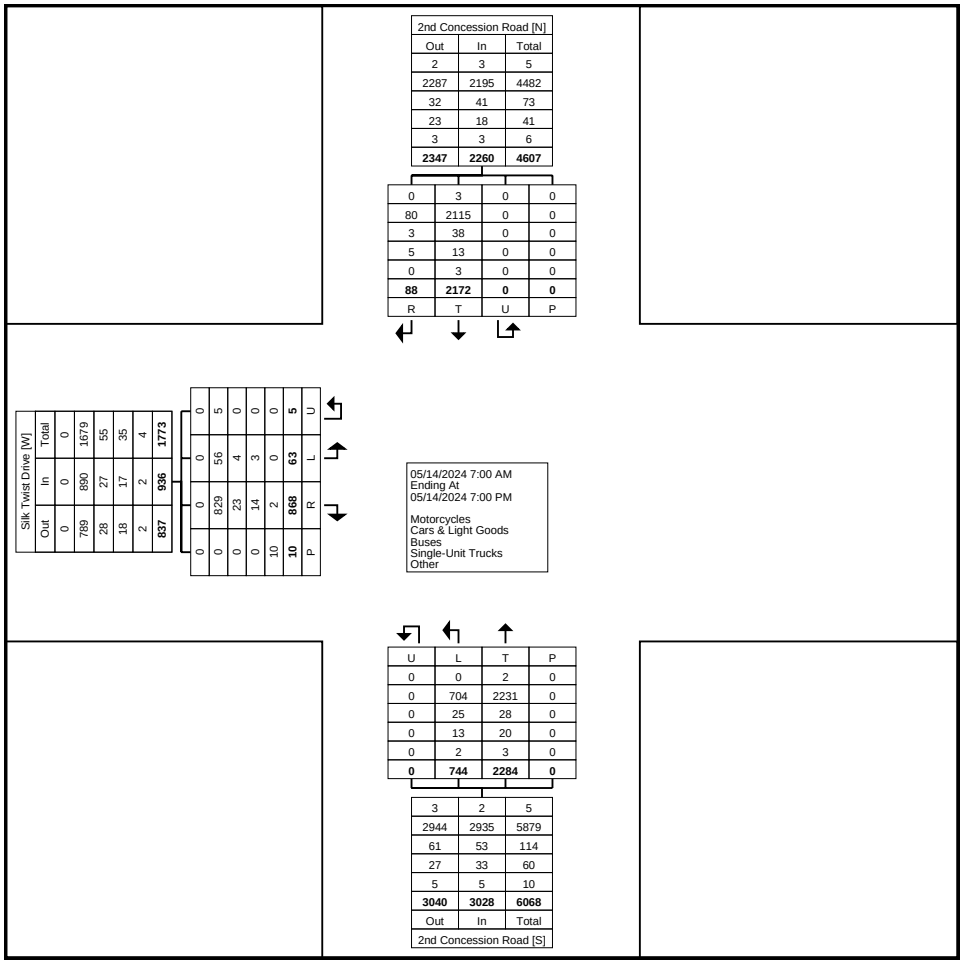
Start Time	Silk Twist Drive Eastbound					2nd Concession Road Northbound					2nd Concession Road Southbound					
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Int. Total
7:00 AM	0	22	0	0	22	3	12	0	0	15	56	3	0	0	59	96
7:15 AM	1	25	0	0	26	14	18	0	0	32	58	3	0	0	61	119
7:30 AM	3	31	1	0	35	21	25	0	0	46	62	4	0	0	66	147
7:45 AM	1	33	0	0	34	20	24	0	0	44	64	4	0	0	68	146
Hourly Total	5	111	1	0	117	58	79	0	0	137	240	14	0	0	254	508
8:00 AM	0	42	0	0	42	28	41	0	0	69	87	5	0	0	92	203
8:15 AM	7	42	0	0	49	19	39	0	0	58	73	1	0	0	74	181
8:30 AM	1	28	1	0	30	9	43	0	0	52	78	2	0	0	80	162
8:45 AM	0	40	1	0	41	20	64	0	0	84	102	1	0	0	103	228
Hourly Total	8	152	2	0	162	76	187	0	0	263	340	9	0	0	349	774
9:00 AM	1	23	0	0	24	22	45	0	0	67	53	0	0	0	53	144
9:15 AM	3	11	0	1	14	15	32	0	0	47	54	1	0	0	55	116
9:30 AM	1	20	0	0	21	13	31	0	0	44	50	0	0	0	50	115
9:45 AM	0	16	0	0	16	8	28	0	0	36	34	2	0	0	36	88
Hourly Total	5	70	0	1	75	58	136	0	0	194	191	3	0	0	194	463
10:00 AM	2	18	0	0	20	10	22	0	0	32	39	1	0	0	40	92
10:15 AM	1	7	0	0	8	11	41	0	0	52	46	2	0	0	48	108
10:30 AM	1	13	0	0	14	8	29	0	0	37	31	1	0	0	32	83
10:45 AM	0	7	0	0	7	5	28	0	0	33	34	0	0	0	34	74
Hourly Total	4	45	0	0	49	34	120	0	0	154	150	4	0	0	154	357
11:00 AM	1	10	0	0	11	4	32	0	0	36	37	3	0	0	40	87
11:15 AM	0	13	0	0	13	5	26	0	0	31	34	2	0	0	36	80
11:30 AM	1	8	0	0	9	6	28	0	0	34	37	3	0	0	40	83
11:45 AM	0	8	0	0	8	5	35	0	0	40	29	0	0	0	29	77
Hourly Total	2	39	0	0	41	20	121	0	0	141	137	8	0	0	145	327
12:00 PM	1	13	0	0	14	10	33	0	0	43	30	1	0	0	31	88
12:15 PM	0	11	0	0	11	9	35	0	0	44	35	0	0	0	35	90
12:30 PM	2	14	0	1	16	9	32	0	0	41	34	1	0	0	35	92
12:45 PM	0	11	0	0	11	13	43	0	0	56	38	2	0	0	40	107
Hourly Total	3	49	0	1	52	41	143	0	0	184	137	4	0	0	141	377
1:00 PM	0	13	0	0	13	12	40	0	0	52	36	2	0	0	38	103
1:15 PM	1	13	0	0	14	13	43	0	0	56	34	1	0	0	35	105
1:30 PM	2	12	0	0	14	9	32	0	0	41	31	4	0	0	35	90
1:45 PM	1	7	0	0	8	10	36	0	0	46	35	2	0	0	37	91
Hourly Total	4	45	0	0	49	44	151	0	0	195	136	9	0	0	145	389
2:00 PM	0	10	0	0	10	7	32	0	0	39	28	1	0	0	29	78

2:15 PM	1	12	0	0	13	13	33	0	0	46	51	3	0	0	54	113
2:30 PM	1	15	0	0	16	27	49	0	0	76	32	2	0	0	34	126
2:45 PM	3	33	0	2	36	13	37	0	0	50	36	1	0	0	37	123
Hourly Total	5	70	0	2	75	60	151	0	0	211	147	7	0	0	154	440
3:00 PM	0	18	0	0	18	14	58	0	0	72	54	0	0	0	54	144
3:15 PM	1	29	1	2	31	18	81	0	0	99	48	2	0	0	50	180
3:30 PM	3	12	0	0	15	30	73	0	0	103	50	0	0	0	50	168
3:45 PM	2	19	0	3	21	20	78	0	0	98	42	4	0	0	46	165
Hourly Total	6	78	1	5	85	82	290	0	0	372	194	6	0	0	200	657
4:00 PM	3	15	1	0	19	18	97	0	0	115	34	2	0	0	36	170
4:15 PM	1	11	0	0	12	22	75	0	0	97	38	2	0	0	40	149
4:30 PM	3	28	0	0	31	25	63	0	0	88	48	5	0	0	53	172
4:45 PM	2	30	0	0	32	26	84	0	0	110	60	0	0	0	60	202
Hourly Total	9	84	1	0	94	91	319	0	0	410	180	9	0	0	189	693
5:00 PM	3	32	0	1	35	20	93	0	0	113	46	1	0	0	47	195
5:15 PM	2	17	0	0	19	15	85	0	0	100	56	2	0	0	58	177
5:30 PM	2	18	0	0	20	24	61	0	0	85	40	1	0	0	41	146
5:45 PM	3	8	0	0	11	20	75	0	0	95	41	2	0	0	43	149
Hourly Total	10	75	0	1	85	79	314	0	0	393	183	6	0	0	189	667
6:00 PM	0	13	0	0	13	29	72	0	0	101	30	3	0	0	33	147
6:15 PM	1	13	0	0	14	24	74	0	0	98	25	2	0	0	27	139
6:30 PM	1	10	0	0	11	32	63	0	0	95	43	2	0	0	45	151
6:45 PM	0	14	0	0	14	16	64	0	0	80	39	2	0	0	41	135
Hourly Total	2	50	0	0	52	101	273	0	0	374	137	9	0	0	146	572
Grand Total	63	868	5	10	936	744	2284	0	0	3028	2172	88	0	0	2260	6224
Approach %	6.7	92.7	0.5	-	-	24.6	75.4	0.0	-	-	96.1	3.9	0.0	-	-	-
Total %	1.0	13.9	0.1	-	15.0	12.0	36.7	0.0	-	48.7	34.9	1.4	0.0	-	36.3	-
Motorcycles	0	0	0	-	0	0	2	0	-	2	3	0	0	-	3	5
% Motorcycles	0.0	0.0	0.0	-	0.0	0.0	0.1	-	-	0.1	0.1	0.0	-	-	0.1	0.1
Cars & Light Goods	56	829	5	-	890	704	2231	0	-	2935	2115	80	0	-	2195	6020
% Cars & Light Goods	88.9	95.5	100.0	-	95.1	94.6	97.7	-	-	96.9	97.4	90.9	-	-	97.1	96.7
Buses	4	23	0	-	27	25	28	0	-	53	38	3	0	-	41	121
% Buses	6.3	2.6	0.0	-	2.9	3.4	1.2	-	-	1.8	1.7	3.4	-	-	1.8	1.9
Single-Unit Trucks	3	14	0	-	17	13	20	0	-	33	13	5	0	-	18	68
% Single-Unit Trucks	4.8	1.6	0.0	-	1.8	1.7	0.9	-	-	1.1	0.6	5.7	-	-	0.8	1.1
Articulated Trucks	0	2	0	-	2	2	1	0	-	3	1	0	0	-	1	6
% Articulated Trucks	0.0	0.2	0.0	-	0.2	0.3	0.0	-	-	0.1	0.0	0.0	-	-	0.0	0.1
Bicycles on Road	0	0	0	-	0	0	2	0	-	2	2	0	0	-	2	4
% Bicycles on Road	0.0	0.0	0.0	-	0.0	0.0	0.1	-	-	0.1	0.1	0.0	-	-	0.1	0.1
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	10	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Silk Twist Drive & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024



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: Silk Twist Drive & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024

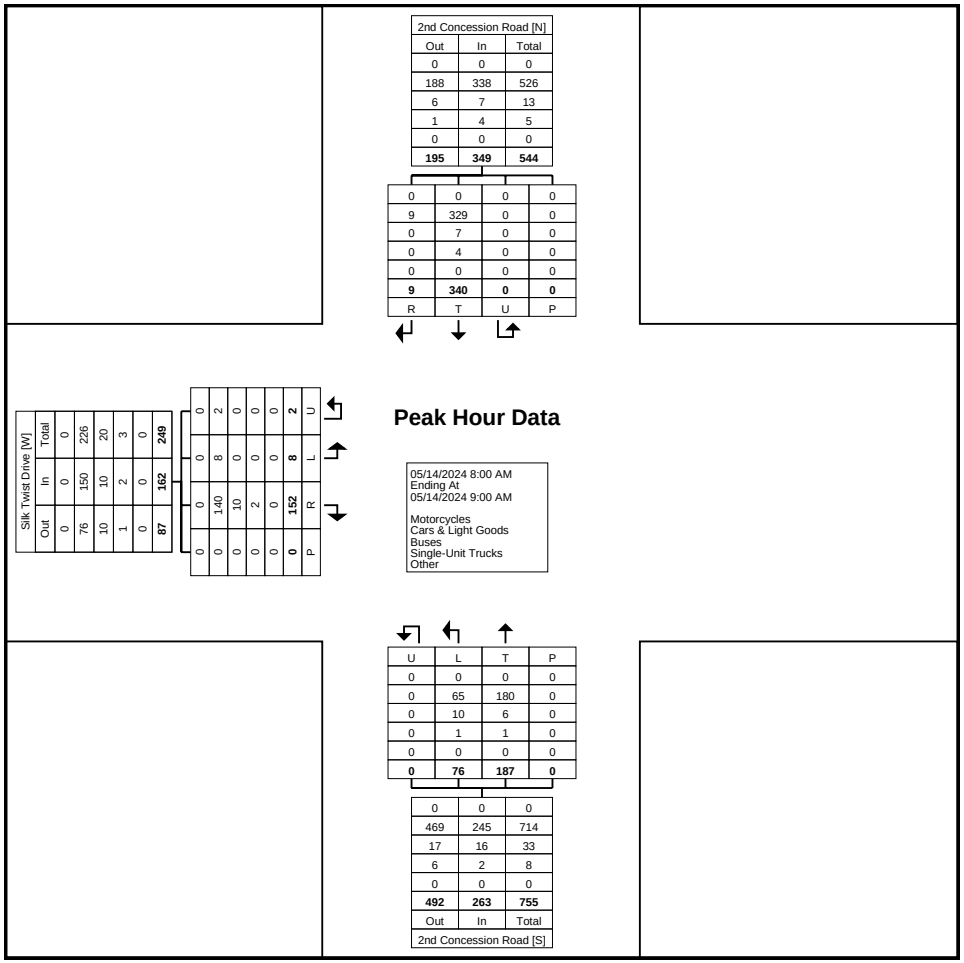
Turning Movement Peak Hour Data (8:00 AM)

Start Time	Silk Twist Drive Eastbound					2nd Concession Road Northbound					2nd Concession Road Southbound					
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Int. Total
8:00 AM	0	42	0	0	42	28	41	0	0	69	87	5	0	0	92	203
8:15 AM	7	42	0	0	49	19	39	0	0	58	73	1	0	0	74	181
8:30 AM	1	28	1	0	30	9	43	0	0	52	78	2	0	0	80	162
8:45 AM	0	40	1	0	41	20	64	0	0	84	102	1	0	0	103	228
Total	8	152	2	0	162	76	187	0	0	263	340	9	0	0	349	774
Approach %	4.9	93.8	1.2	-	-	28.9	71.1	0.0	-	-	97.4	2.6	0.0	-	-	-
Total %	1.0	19.6	0.3	-	20.9	9.8	24.2	0.0	-	34.0	43.9	1.2	0.0	-	45.1	-
PHF	0.286	0.905	0.500	-	0.827	0.679	0.730	0.000	-	0.783	0.833	0.450	0.000	-	0.847	0.849
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	8	140	2	-	150	65	180	0	-	245	329	9	0	-	338	733
% Cars & Light Goods	100.0	92.1	100.0	-	92.6	85.5	96.3	-	-	93.2	96.8	100.0	-	-	96.8	94.7
Buses	0	10	0	-	10	10	6	0	-	16	7	0	0	-	7	33
% Buses	0.0	6.6	0.0	-	6.2	13.2	3.2	-	-	6.1	2.1	0.0	-	-	2.0	4.3
Single-Unit Trucks	0	2	0	-	2	1	1	0	-	2	4	0	0	-	4	8
% Single-Unit Trucks	0.0	1.3	0.0	-	1.2	1.3	0.5	-	-	0.8	1.2	0.0	-	-	1.1	1.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	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: Silk Twist Drive & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024



Turning Movement Peak Hour Data Plot (8:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Silk Twist Drive & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024

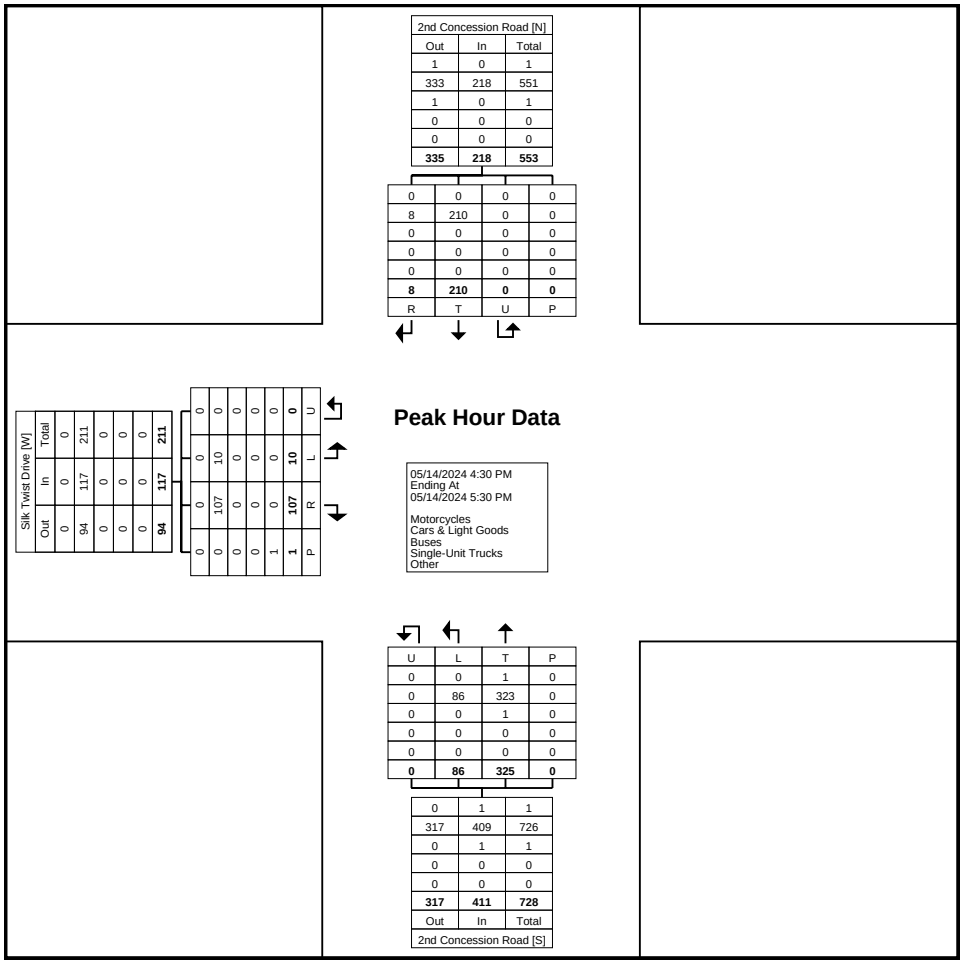
Turning Movement Peak Hour Data (4:30 PM)

Start Time	Silk Twist Drive Eastbound					2nd Concession Road Northbound					2nd Concession Road Southbound					
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Int. Total
4:30 PM	3	28	0	0	31	25	63	0	0	88	48	5	0	0	53	172
4:45 PM	2	30	0	0	32	26	84	0	0	110	60	0	0	0	60	202
5:00 PM	3	32	0	1	35	20	93	0	0	113	46	1	0	0	47	195
5:15 PM	2	17	0	0	19	15	85	0	0	100	56	2	0	0	58	177
Total	10	107	0	1	117	86	325	0	0	411	210	8	0	0	218	746
Approach %	8.5	91.5	0.0	-	-	20.9	79.1	0.0	-	-	96.3	3.7	0.0	-	-	-
Total %	1.3	14.3	0.0	-	15.7	11.5	43.6	0.0	-	55.1	28.2	1.1	0.0	-	29.2	-
PHF	0.833	0.836	0.000	-	0.836	0.827	0.874	0.000	-	0.909	0.875	0.400	0.000	-	0.908	0.923
Motorcycles	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.3	-	-	0.2	0.0	0.0	-	-	0.0	0.1
Cars & Light Goods	10	107	0	-	117	86	323	0	-	409	210	8	0	-	218	744
% Cars & Light Goods	100.0	100.0	-	-	100.0	100.0	99.4	-	-	99.5	100.0	100.0	-	-	100.0	99.7
Buses	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Buses	0.0	0.0	-	-	0.0	0.0	0.3	-	-	0.2	0.0	0.0	-	-	0.0	0.1
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

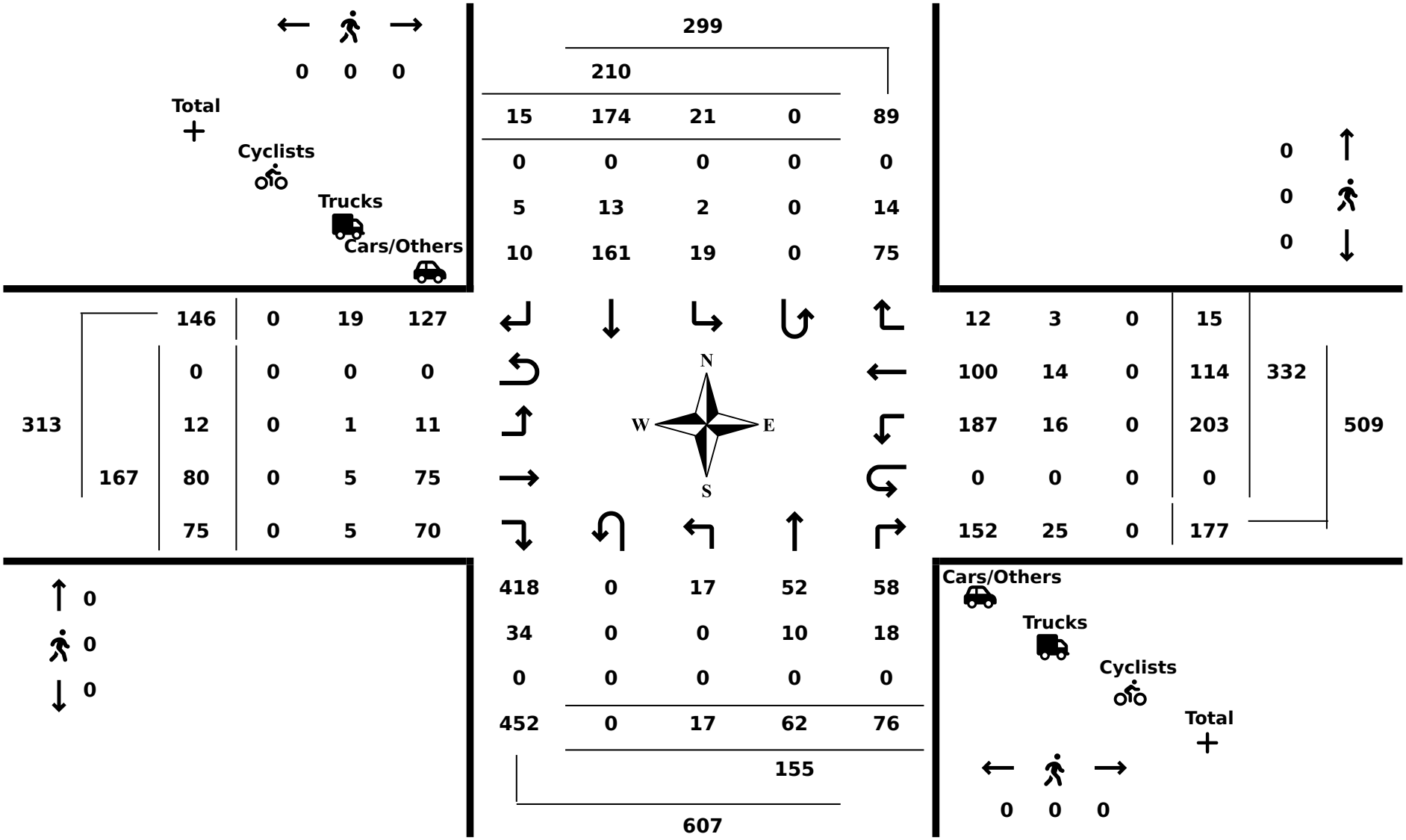
Count Name: Silk Twist Drive & 2nd Concession Road
Site Code: 230671
Start Date: 05/14/2024



Turning Movement Peak Hour Data Plot (4:30 PM)

Turning Movement Count Peak Hour Diagram

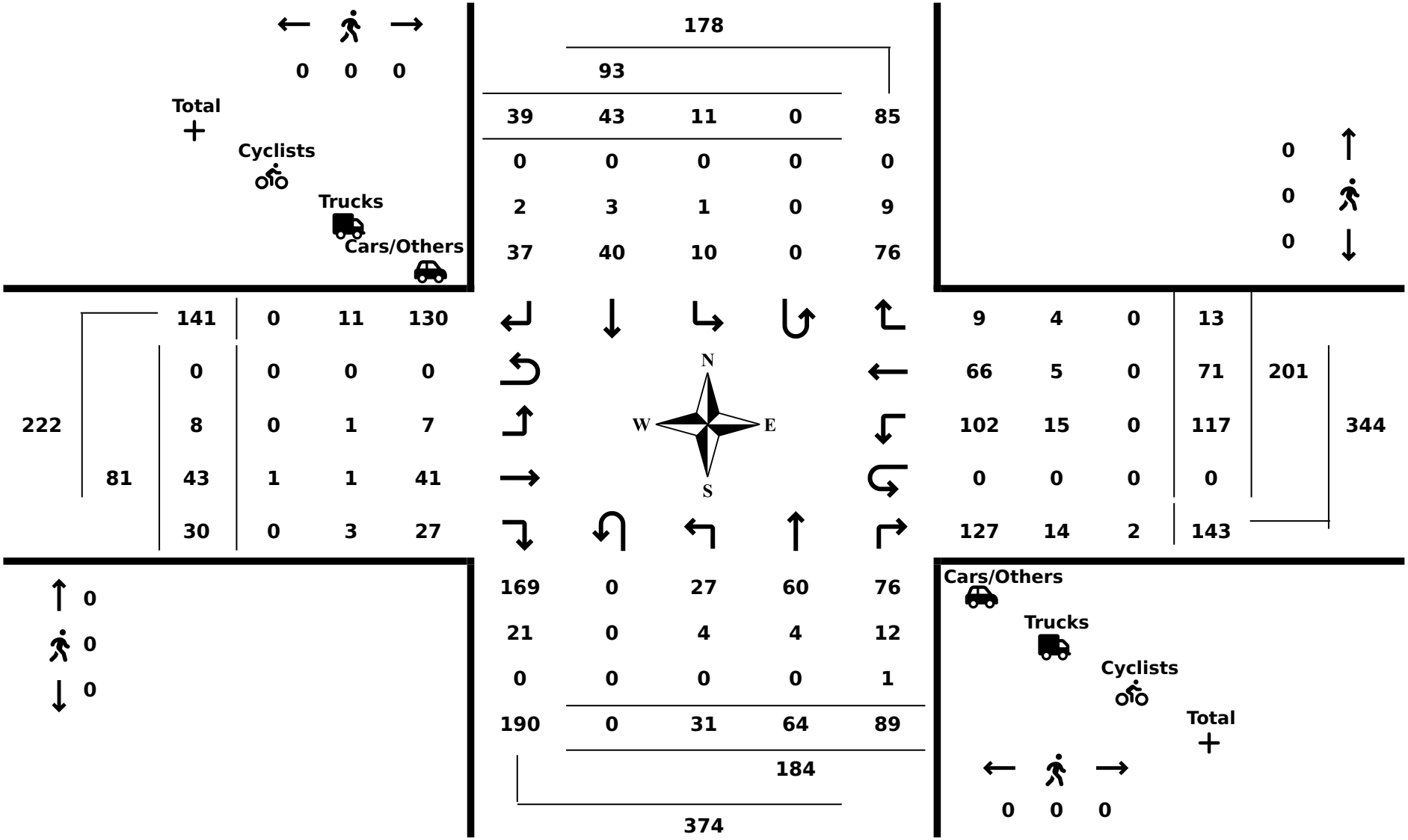
Location:	Woodbine Avenue @ Mount Albert Road	**Municipality:**	
Jurisdiction:		**Start Date:** 06/16/2022 07:45:00	**End Date:** 06/16/2022 08:45:00



© York Region

TES www.tes.ca

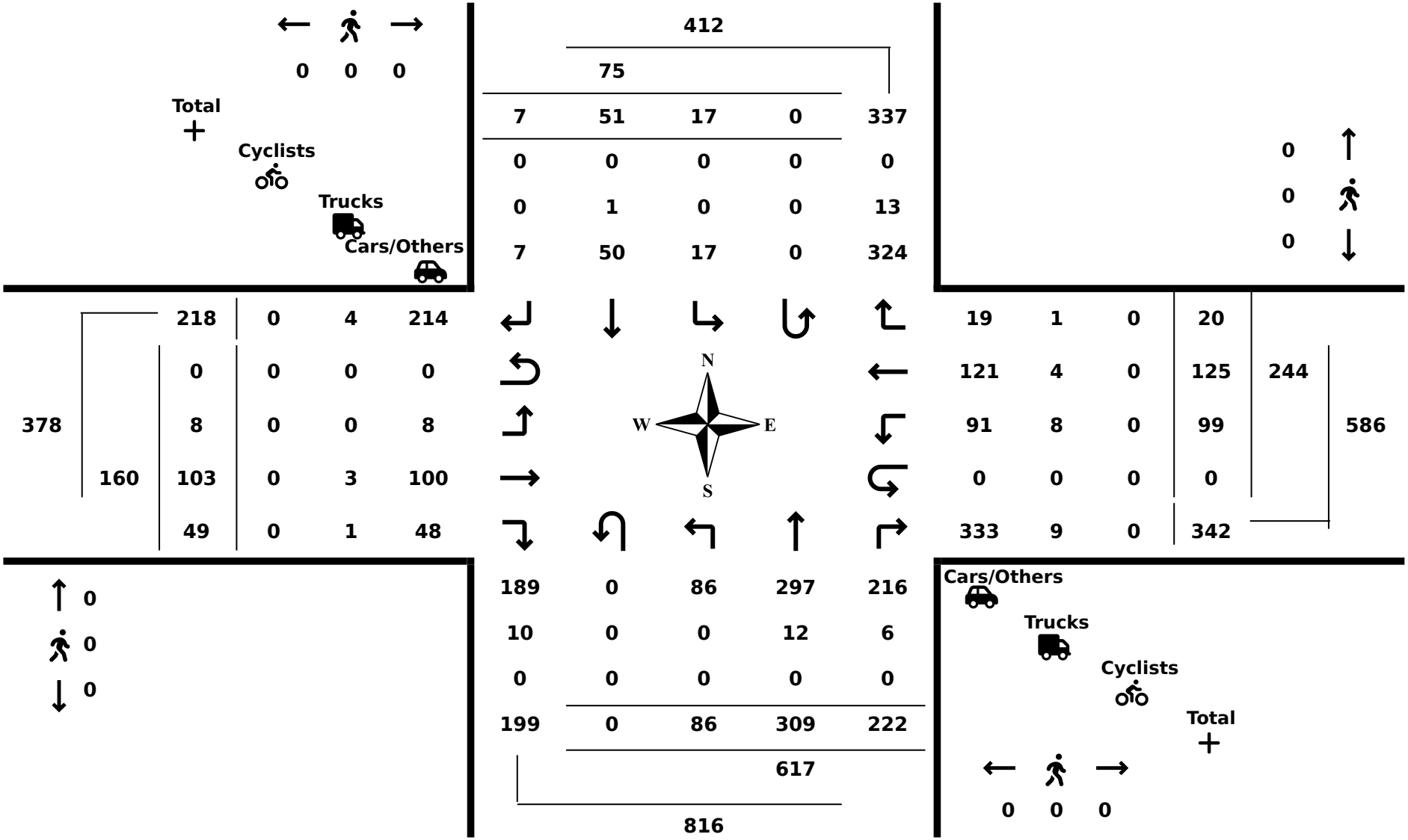
Location:	Woodbine Avenue @ Mount Albert Road	**Municipality:**	
Jurisdiction:		**Start Date:** 06/16/2022 11:45:00	**End Date:** 06/16/2022 12:45:00



© York Region

TES www.tes.ca

Location:	Woodbine Avenue @ Mount Albert Road	**Municipality:**	
Jurisdiction:		**Start Date:** 06/16/2022 16:30:00	**End Date:** 06/16/2022 17:30:00

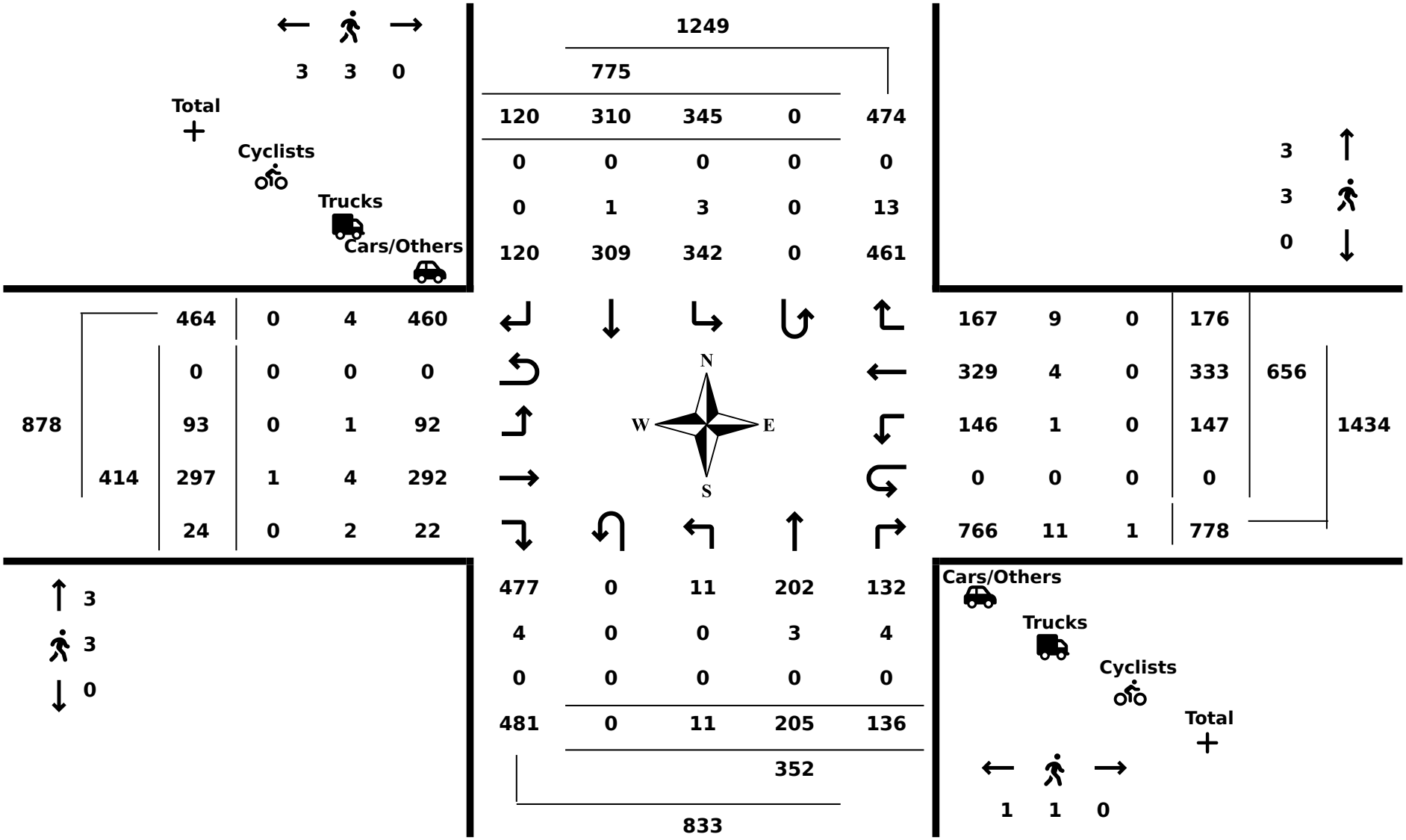


TES www.tes.ca

Rev 74-5.1

Turning Movement Count Peak Hour Diagram

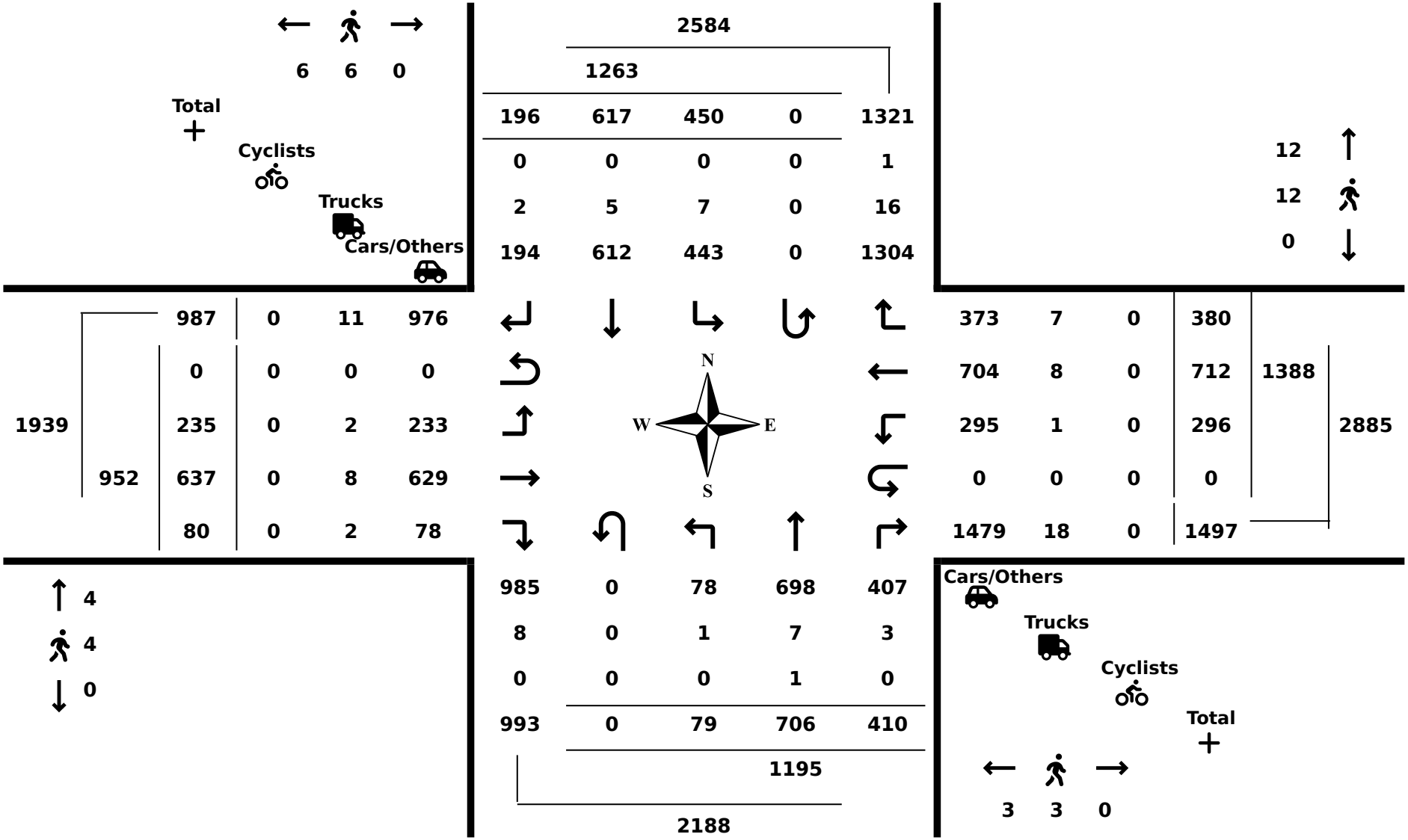
Location:	Yonge Street @ Green Lane East/Green Lane West	**Municipality:**	
Jurisdiction:		**Start Date:** 09/17/2022 08:00:00	**End Date:** 09/17/2022 09:00:00



© York Region

TES www.tes.ca

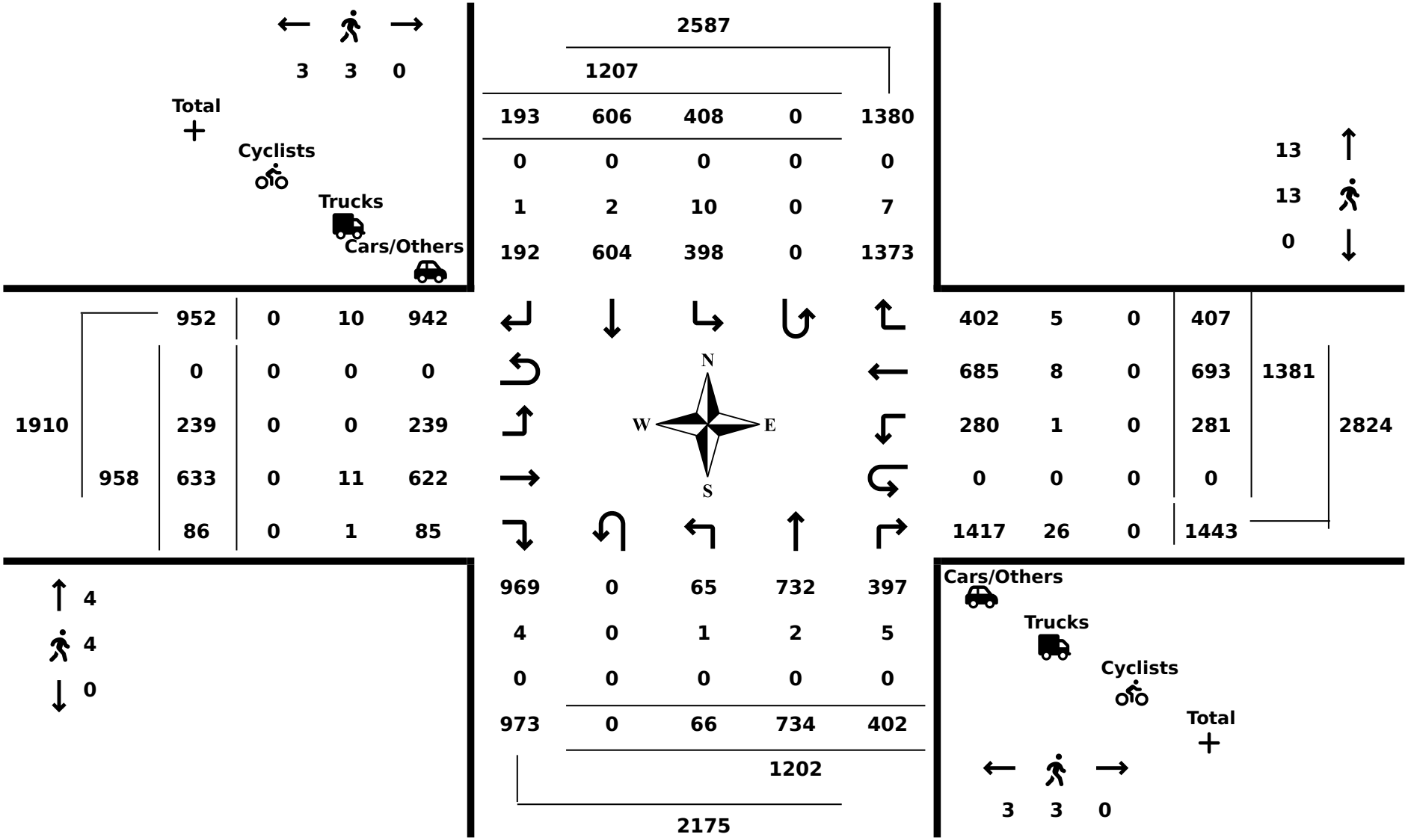
Location:	Yonge Street @ Green Lane East/Green Lane West	**Municipality:**	
Jurisdiction:		**Start Date:** 09/17/2022 12:45:00	**End Date:** 09/17/2022 13:45:00



© York Region

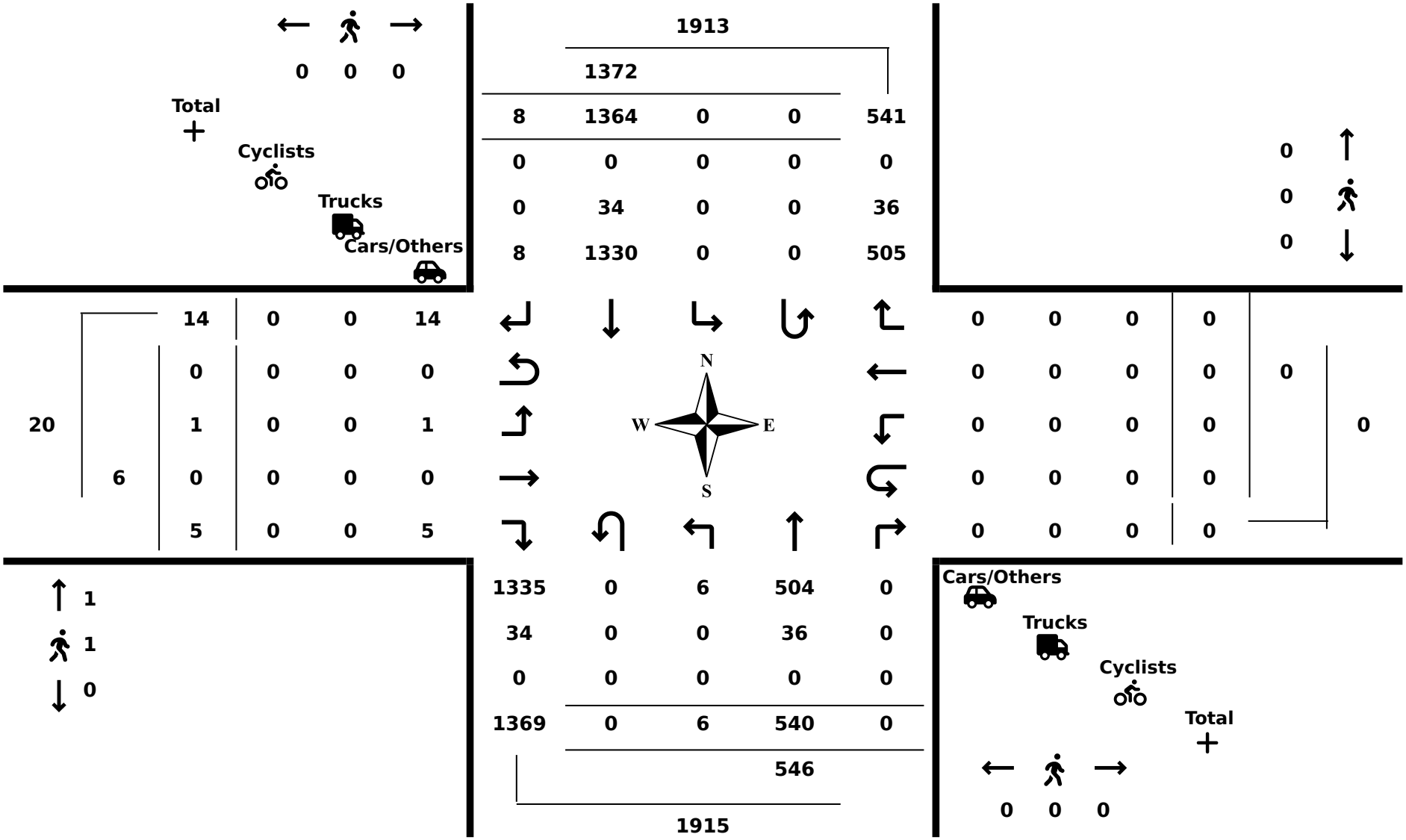
TES www.tes.ca

Location:	Yonge Street @ Green Lane East/Green Lane West	**Municipality:**	
Jurisdiction:		**Start Date:** 09/17/2022 15:30:00	**End Date:** 09/17/2022 16:30:00

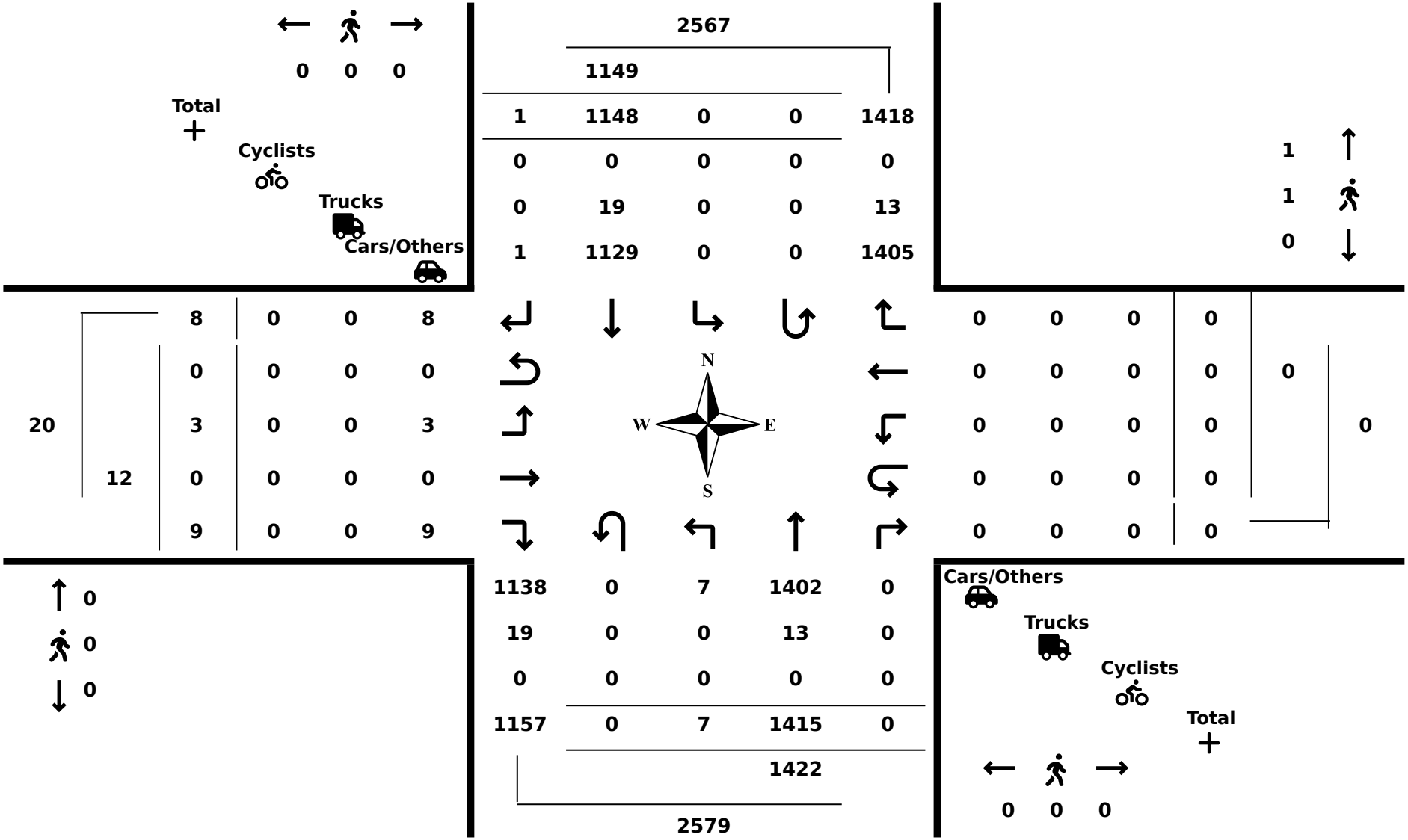


Turning Movement Count Peak Hour Diagram

Location:	Yonge Street @ Old Yonge Street/Holland Landing Road	**Municipality:**	
Jurisdiction:		**Start Date:** 12/21/2022 07:45:00	**End Date:** 12/21/2022 08:45:00



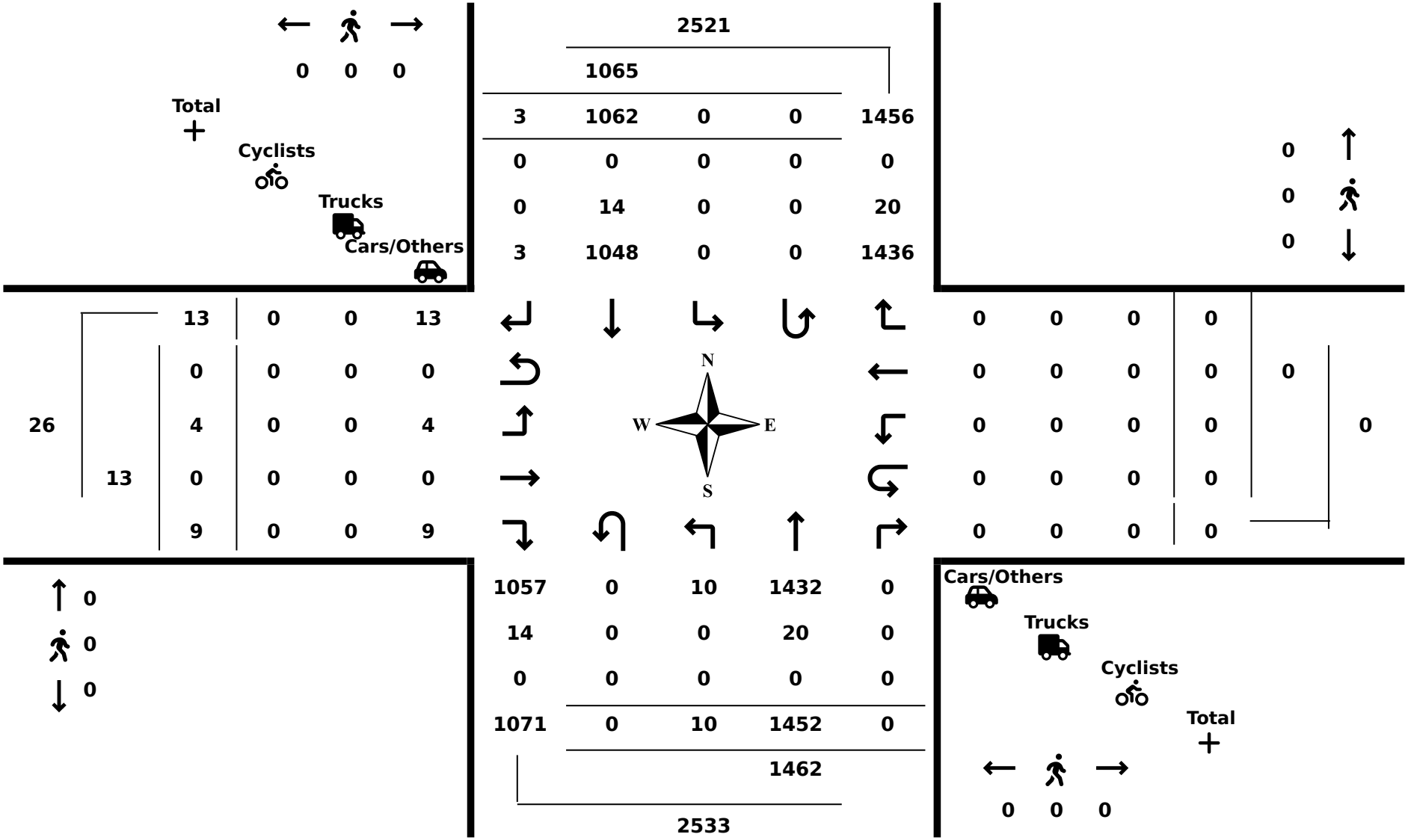
Location:	Yonge Street @ Old Yonge Street/Holland Landing Road	**Municipality:**	
Jurisdiction:		**Start Date:** 12/21/2022 13:00:00	**End Date:** 12/21/2022 14:00:00



© York Region

TES www.tes.ca

Location:	Yonge Street @ Old Yonge Street/Holland Landing Road	**Municipality:**	
Jurisdiction:		**Start Date:** 12/21/2022 16:15:00	**End Date:** 12/21/2022 17:15:00



© York Region

TES www.tes.ca

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Yonge Street & Highway 11
Site Code: 230671
Start Date: 05/14/2024

Turning Movement Data

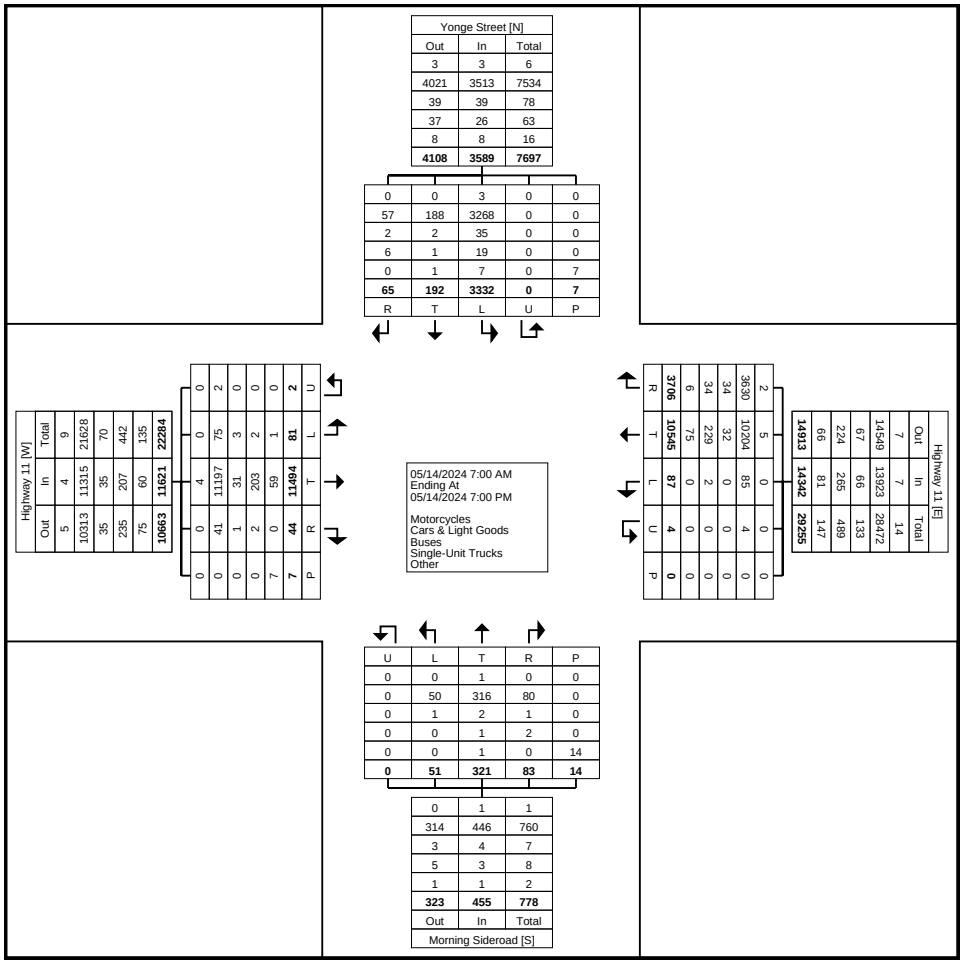
Start Time	Highway 11 Eastbound						Highway 11 Westbound						Morning Sideroad Northbound						Yonge Street Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	1	358	1	0	0	360	0	89	15	0	0	104	0	1	3	0	0	4	61	5	0	0	0	66	534
7:15 AM	0	405	1	0	0	406	1	90	17	0	0	108	1	2	2	0	0	5	56	8	0	0	0	64	583
7:30 AM	2	427	1	0	1	430	1	109	21	0	0	131	1	2	0	0	0	3	87	6	1	0	0	94	658
7:45 AM	2	431	0	0	0	433	2	137	27	2	0	168	1	2	1	0	0	4	84	13	1	0	0	98	703
Hourly Total	5	1621	3	0	1	1629	4	425	80	2	0	511	3	7	6	0	0	16	288	32	2	0	0	322	2478
8:00 AM	4	405	3	1	0	413	1	145	49	0	0	195	1	3	0	0	0	4	104	5	0	0	0	109	721
8:15 AM	0	324	1	0	0	325	0	152	54	0	0	206	0	3	5	0	0	8	80	9	2	0	0	91	630
8:30 AM	2	344	2	0	0	348	0	147	58	0	0	205	0	4	4	0	0	8	82	8	2	0	0	92	653
8:45 AM	3	318	0	0	0	321	3	144	59	0	0	206	1	5	3	0	0	9	91	5	0	0	0	96	632
Hourly Total	9	1391	6	1	0	1407	4	588	220	0	0	812	2	15	12	0	0	29	357	27	4	0	0	388	2636
9:00 AM	0	226	0	0	0	226	1	127	61	0	0	189	2	1	1	0	0	4	81	8	2	0	0	91	510
9:15 AM	1	297	0	0	0	298	1	122	47	0	0	170	0	5	2	0	1	7	50	4	0	0	0	54	529
9:30 AM	0	275	1	0	0	276	2	163	52	0	0	217	1	0	1	0	0	2	85	6	1	0	0	92	587
9:45 AM	1	297	1	0	0	299	6	147	51	0	0	204	0	4	3	0	0	7	65	1	1	0	0	67	577
Hourly Total	2	1095	2	0	0	1099	10	559	211	0	0	780	3	10	7	0	1	20	281	19	4	0	0	304	2203
10:00 AM	0	212	1	0	0	213	0	119	61	0	0	180	0	2	3	0	2	5	59	9	0	0	0	68	466
10:15 AM	1	207	0	0	0	208	1	156	60	0	0	217	1	3	4	0	1	8	69	1	4	0	0	74	507
10:30 AM	3	258	0	0	0	261	3	140	61	0	0	204	0	1	3	0	0	4	67	0	2	0	0	69	538
10:45 AM	0	191	0	0	0	191	3	140	61	1	0	205	1	1	1	0	0	3	58	4	2	0	0	64	463
Hourly Total	4	868	1	0	0	873	7	555	243	1	0	806	2	7	11	0	3	20	253	14	8	0	0	275	1974
11:00 AM	3	216	1	1	0	221	3	156	68	0	0	227	0	2	1	0	0	3	54	0	2	0	0	56	507
11:15 AM	1	209	3	0	0	213	4	173	58	0	0	235	0	0	1	0	0	1	61	5	3	0	0	69	518
11:30 AM	3	218	0	0	0	221	0	183	56	0	0	239	0	0	1	0	0	1	71	1	0	0	0	72	533
11:45 AM	0	225	0	0	0	225	1	163	70	0	0	234	2	1	1	0	0	4	64	2	1	0	0	67	530
Hourly Total	7	868	4	1	0	880	8	675	252	0	0	935	2	3	4	0	0	9	250	8	6	0	0	264	2088
12:00 PM	1	213	1	0	0	215	1	195	76	0	0	272	2	6	0	0	1	8	79	1	1	0	0	81	576
12:15 PM	1	189	3	0	0	193	3	185	73	0	0	261	0	2	2	0	0	4	62	2	0	0	0	64	522
12:30 PM	0	215	1	0	0	216	1	241	83	0	0	325	0	1	5	0	2	6	66	2	0	0	0	68	615
12:45 PM	2	224	1	0	0	227	2	211	78	0	0	291	0	1	4	0	0	5	66	2	1	0	0	69	592
Hourly Total	4	841	6	0	0	851	7	832	310	0	0	1149	2	10	11	0	3	23	273	7	2	0	0	282	2305
1:00 PM	1	201	1	0	0	203	0	198	78	0	0	276	0	3	0	0	0	3	64	1	2	0	0	67	549
1:15 PM	0	208	2	0	0	210	2	222	89	0	0	313	0	1	3	0	0	4	49	3	0	0	0	52	579
1:30 PM	1	212	1	0	0	214	0	240	70	0	0	310	0	1	2	0	0	3	70	3	3	0	2	76	603
1:45 PM	1	211	2	0	0	214	4	215	73	0	0	292	1	2	1	0	0	4	52	1	0	0	0	53	563
Hourly Total	3	832	6	0	0	841	6	875	310	0	0	1191	1	7	6	0	0	14	235	8	5	0	2	248	2294

2:00 PM	0	167	0	0	0	167	4	245	65	0	0	314	0	7	1	0	0	8	71	4	0	0	0	75	564
2:15 PM	0	205	0	0	0	205	1	238	71	0	0	310	0	8	2	0	0	10	56	2	0	0	0	58	583
2:30 PM	0	205	1	0	0	206	4	262	88	0	0	354	0	7	0	0	1	7	67	5	1	0	0	73	640
2:45 PM	2	178	0	0	1	180	1	268	75	0	0	344	4	9	1	0	0	14	61	2	0	0	0	63	601
Hourly Total	2	755	1	0	1	758	10	1013	299	0	0	1322	4	31	4	0	1	39	255	13	1	0	0	269	2388
3:00 PM	0	150	2	0	0	152	1	270	99	0	0	370	3	9	1	0	0	13	53	2	1	0	0	56	591
3:15 PM	1	176	2	0	0	179	3	328	111	0	0	442	4	13	1	0	1	18	66	8	4	0	0	78	717
3:30 PM	3	219	0	0	2	222	6	347	98	0	0	451	1	8	3	0	1	12	67	4	1	0	2	72	757
3:45 PM	1	223	0	0	0	224	2	336	102	0	0	440	2	10	1	0	0	13	91	4	2	0	0	97	774
Hourly Total	5	768	4	0	2	777	12	1281	410	0	0	1703	10	40	6	0	2	56	277	18	8	0	2	303	2839
4:00 PM	1	203	0	0	0	204	4	345	121	0	0	470	1	21	3	0	0	25	67	0	2	0	0	69	768
4:15 PM	2	219	0	0	2	221	3	355	112	0	0	470	2	13	5	0	0	20	78	9	1	0	3	88	799
4:30 PM	3	225	3	0	0	231	0	342	141	0	0	483	2	20	3	0	1	25	85	4	3	0	0	92	831
4:45 PM	4	215	1	0	0	220	3	347	132	0	0	482	0	13	0	0	0	13	74	2	4	0	0	80	795
Hourly Total	10	862	4	0	2	876	10	1389	506	0	0	1905	5	67	11	0	1	83	304	15	10	0	3	329	3193
5:00 PM	8	207	0	0	0	215	2	320	113	0	0	435	1	27	1	0	0	29	78	7	4	0	0	89	768
5:15 PM	7	263	1	0	0	271	4	355	138	0	0	497	4	19	1	0	0	24	67	6	2	0	0	75	867
5:30 PM	5	204	2	0	0	211	0	318	117	0	0	435	1	18	0	0	2	19	75	2	3	0	0	80	745
5:45 PM	3	204	4	0	0	211	1	292	120	0	0	413	3	13	0	0	0	16	63	4	1	0	0	68	708
Hourly Total	23	878	7	0	0	908	7	1285	488	0	0	1780	9	77	2	0	2	88	283	19	10	0	0	312	3088
6:00 PM	3	191	0	0	0	194	1	306	97	0	0	404	2	20	0	0	0	22	79	5	1	0	0	85	705
6:15 PM	1	185	0	0	1	186	0	275	95	0	0	370	1	15	1	0	0	17	65	3	1	0	0	69	642
6:30 PM	2	170	0	0	0	172	1	243	95	0	0	339	5	8	1	0	1	14	70	1	1	0	0	72	597
6:45 PM	1	169	0	0	0	170	0	244	90	1	0	335	0	4	1	0	0	5	62	3	2	0	0	67	577
Hourly Total	7	715	0	0	1	722	2	1068	377	1	0	1448	8	47	3	0	1	58	276	12	5	0	0	293	2521
Grand Total	81	11494	44	2	7	11621	87	10545	3706	4	0	14342	51	321	83	0	14	455	3332	192	65	0	7	3589	30007
Approach %	0.7	98.9	0.4	0.0	-	-	0.6	73.5	25.8	0.0	-	-	11.2	70.5	18.2	0.0	-	-	92.8	5.3	1.8	0.0	-	-	-
Total %	0.3	38.3	0.1	0.0	-	38.7	0.3	35.1	12.4	0.0	-	47.8	0.2	1.1	0.3	0.0	-	1.5	11.1	0.6	0.2	0.0	-	12.0	-
Motorcycles	0	4	0	0	-	4	0	5	2	0	-	7	0	1	0	0	-	1	3	0	0	0	-	3	15
% Motorcycles	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.1	0.0	-	0.0	0.0	0.3	0.0	-	-	0.2	0.1	0.0	0.0	-	-	0.1	0.0
Cars & Light Goods	75	11197	41	2	-	11315	85	10204	3630	4	-	13923	50	316	80	0	-	446	3268	188	57	0	-	3513	29197
% Cars & Light Goods	92.6	97.4	93.2	100.0	-	97.4	97.7	96.8	97.9	100.0	-	97.1	98.0	98.4	96.4	-	-	98.0	98.1	97.9	87.7	-	-	97.9	97.3
Buses	3	31	1	0	-	35	0	32	34	0	-	66	1	2	1	0	-	4	35	2	2	0	-	39	144
% Buses	3.7	0.3	2.3	0.0	-	0.3	0.0	0.3	0.9	0.0	-	0.5	2.0	0.6	1.2	-	-	0.9	1.1	1.0	3.1	-	-	1.1	0.5
Single-Unit Trucks	2	203	2	0	-	207	2	229	34	0	-	265	0	1	2	0	-	3	19	1	6	0	-	26	501
% Single-Unit Trucks	2.5	1.8	4.5	0.0	-	1.8	2.3	2.2	0.9	0.0	-	1.8	0.0	0.3	2.4	-	-	0.7	0.6	0.5	9.2	-	-	0.7	1.7
Articulated Trucks	1	57	0	0	-	58	0	74	6	0	-	80	0	1	0	0	-	1	6	1	0	0	-	7	146
% Articulated Trucks	1.2	0.5	0.0	0.0	-	0.5	0.0	0.7	0.2	0.0	-	0.6	0.0	0.3	0.0	-	-	0.2	0.2	0.5	0.0	-	-	0.2	0.5
Bicycles on Road	0	2	0	0	-	2	0	1	0	0	-	1	0	0	0	0	-	0	1	0	0	0	-	1	4
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	14.3	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	7	-	-	-	-	-	0	-	-	-	-	-	12	-	-	-	-	-	7	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	85.7	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Yonge Street & Highway 11
Site Code: 230671
Start Date: 05/14/2024



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: Yonge Street & Highway 11
Site Code: 230671
Start Date: 05/14/2024

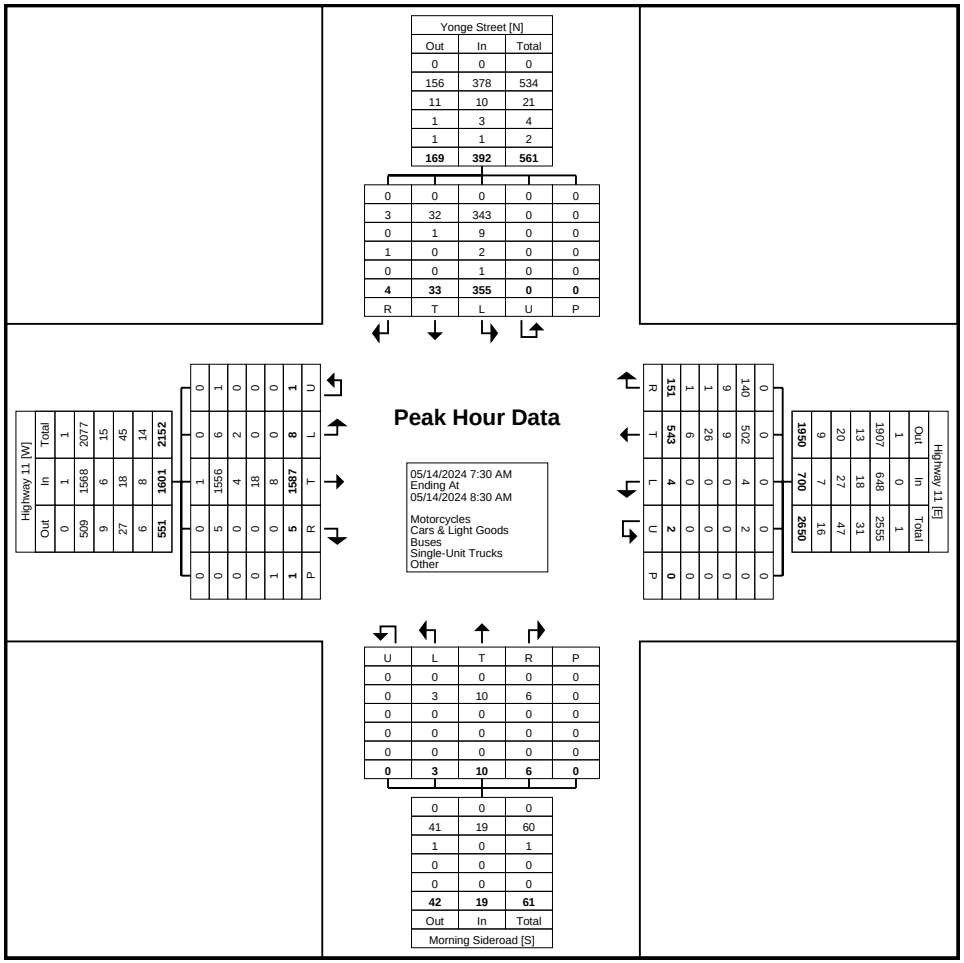
Turning Movement Peak Hour Data (7:30 AM)

Start Time	Highway 11 Eastbound						Highway 11 Westbound						Morning Sideroad Northbound						Yonge 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
7:30 AM	2	427	1	0	1	430	1	109	21	0	0	131	1	2	0	0	0	3	87	6	1	0	0	94	658
7:45 AM	2	431	0	0	0	433	2	137	27	2	0	168	1	2	1	0	0	4	84	13	1	0	0	98	703
8:00 AM	4	405	3	1	0	413	1	145	49	0	0	195	1	3	0	0	0	4	104	5	0	0	0	109	721
8:15 AM	0	324	1	0	0	325	0	152	54	0	0	206	0	3	5	0	0	8	80	9	2	0	0	91	630
Total	8	1587	5	1	1	1601	4	543	151	2	0	700	3	10	6	0	0	19	355	33	4	0	0	392	2712
Approach %	0.5	99.1	0.3	0.1	-	-	0.6	77.6	21.6	0.3	-	-	15.8	52.6	31.6	0.0	-	-	90.6	8.4	1.0	0.0	-	-	-
Total %	0.3	58.5	0.2	0.0	-	59.0	0.1	20.0	5.6	0.1	-	25.8	0.1	0.4	0.2	0.0	-	0.7	13.1	1.2	0.1	0.0	-	14.5	-
PHF	0.500	0.921	0.417	0.250	-	0.924	0.500	0.893	0.699	0.250	-	0.850	0.750	0.833	0.300	0.000	-	0.594	0.853	0.635	0.500	0.000	-	0.899	0.940
Motorcycles	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Motorcycles	0.0	0.1	0.0	0.0	-	0.1	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	6	1556	5	1	-	1568	4	502	140	2	-	648	3	10	6	0	-	19	343	32	3	0	-	378	2613
% Cars & Light Goods	75.0	98.0	100.0	100.0	-	97.9	100.0	92.4	92.7	100.0	-	92.6	100.0	100.0	100.0	-	-	100.0	96.6	97.0	75.0	-	-	96.4	96.3
Buses	2	4	0	0	-	6	0	9	9	0	-	18	0	0	0	0	-	0	9	1	0	0	-	10	34
% Buses	25.0	0.3	0.0	0.0	-	0.4	0.0	1.7	6.0	0.0	-	2.6	0.0	0.0	0.0	-	-	0.0	2.5	3.0	0.0	-	-	2.6	1.3
Single-Unit Trucks	0	18	0	0	-	18	0	26	1	0	-	27	0	0	0	0	-	0	2	0	1	0	-	3	48
% Single-Unit Trucks	0.0	1.1	0.0	0.0	-	1.1	0.0	4.8	0.7	0.0	-	3.9	0.0	0.0	0.0	-	-	0.0	0.6	0.0	25.0	-	-	0.8	1.8
Articulated Trucks	0	8	0	0	-	8	0	5	1	0	-	6	0	0	0	0	-	0	1	0	0	0	-	1	15
% Articulated Trucks	0.0	0.5	0.0	0.0	-	0.5	0.0	0.9	0.7	0.0	-	0.9	0.0	0.0	0.0	-	-	0.0	0.3	0.0	0.0	-	-	0.3	0.6
Bicycles on Road	0	0	0	0	-	0	0	1	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	-	0.0	0.0	0.2	0.0	0.0	-	0.1	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Yonge Street & Highway 11
Site Code: 230671
Start Date: 05/14/2024



Turning Movement Peak Hour Data Plot (7:30 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Yonge Street & Highway 11
Site Code: 230671
Start Date: 05/14/2024

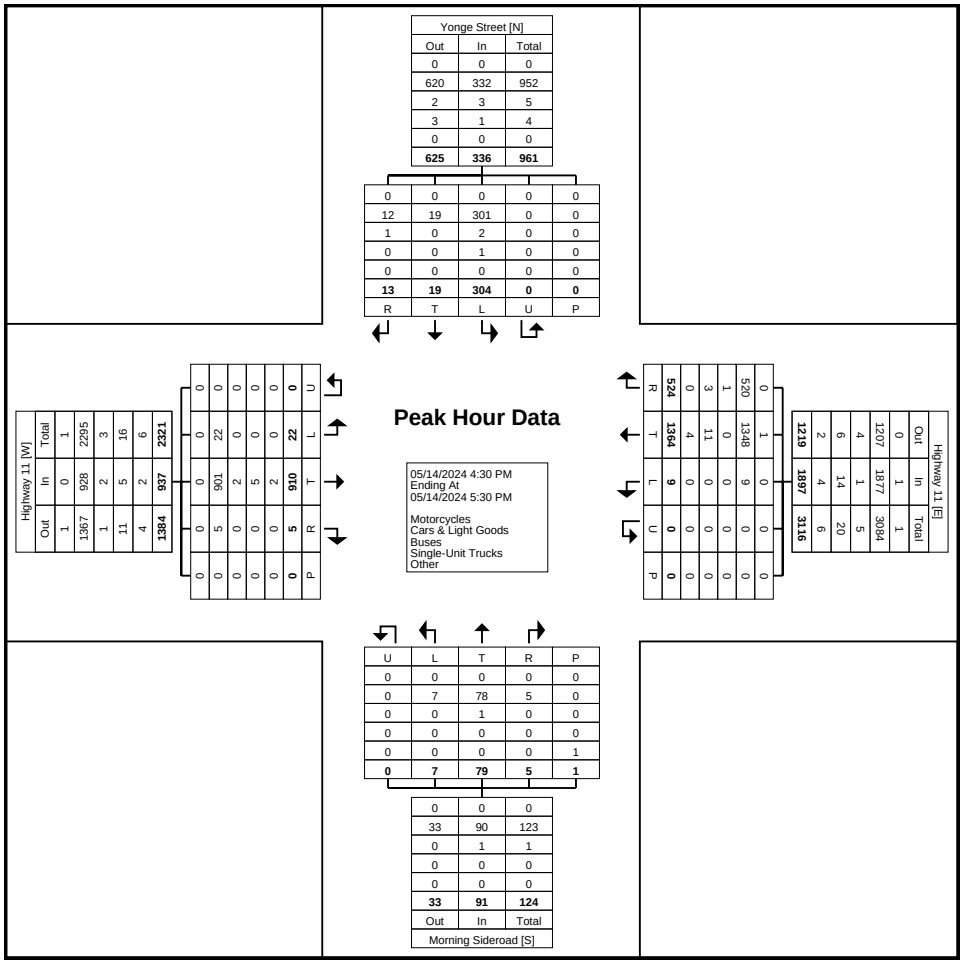
Turning Movement Peak Hour Data (4:30 PM)

Start Time	Highway 11 Eastbound						Highway 11 Westbound						Morning Sideroad Northbound						Yonge 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	
4:30 PM	3	225	3	0	0	231	0	342	141	0	0	483	2	20	3	0	1	25	85	4	3	0	0	92	831
4:45 PM	4	215	1	0	0	220	3	347	132	0	0	482	0	13	0	0	0	13	74	2	4	0	0	80	795
5:00 PM	8	207	0	0	0	215	2	320	113	0	0	435	1	27	1	0	0	29	78	7	4	0	0	89	768
5:15 PM	7	263	1	0	0	271	4	355	138	0	0	497	4	19	1	0	0	24	67	6	2	0	0	75	867
Total	22	910	5	0	0	937	9	1364	524	0	0	1897	7	79	5	0	1	91	304	19	13	0	0	336	3261
Approach %	2.3	97.1	0.5	0.0	-	-	0.5	71.9	27.6	0.0	-	-	7.7	86.8	5.5	0.0	-	-	90.5	5.7	3.9	0.0	-	-	-
Total %	0.7	27.9	0.2	0.0	-	28.7	0.3	41.8	16.1	0.0	-	58.2	0.2	2.4	0.2	0.0	-	2.8	9.3	0.6	0.4	0.0	-	10.3	-
PHF	0.688	0.865	0.417	0.000	-	0.864	0.563	0.961	0.929	0.000	-	0.954	0.438	0.731	0.417	0.000	-	0.784	0.894	0.679	0.813	0.000	-	0.913	0.940
Motorcycles	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.1	0.0	-	-	0.1	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	22	901	5	0	-	928	9	1348	520	0	-	1877	7	78	5	0	-	90	301	19	12	0	-	332	3227
% Cars & Light Goods	100.0	99.0	100.0	-	-	99.0	100.0	98.8	99.2	-	-	98.9	100.0	98.7	100.0	-	-	98.9	99.0	100.0	92.3	-	-	98.8	99.0
Buses	0	2	0	0	-	2	0	0	1	0	-	1	0	1	0	0	-	1	2	0	1	0	-	3	7
% Buses	0.0	0.2	0.0	-	-	0.2	0.0	0.0	0.2	-	-	0.1	0.0	1.3	0.0	-	-	1.1	0.7	0.0	7.7	-	-	0.9	0.2
Single-Unit Trucks	0	5	0	0	-	5	0	11	3	0	-	14	0	0	0	0	-	0	1	0	0	0	-	1	20
% Single-Unit Trucks	0.0	0.5	0.0	-	-	0.5	0.0	0.8	0.6	-	-	0.7	0.0	0.0	0.0	-	-	0.0	0.3	0.0	0.0	-	-	0.3	0.6
Articulated Trucks	0	2	0	0	-	2	0	4	0	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	6
% Articulated Trucks	0.0	0.2	0.0	-	-	0.2	0.0	0.3	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Yonge Street & Highway 11
Site Code: 230671
Start Date: 05/14/2024



Turning Movement Peak Hour Data Plot (4:30 PM)

Appendix B

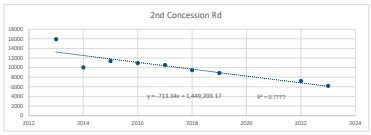
Growth Rates Calculations

Project: East Gwillimbury Secondary Plan
Project #: 230671
Task: Growth Rate

2nd Concession Rd

Description	2013	2014	2015	2016	2017	2018	2019	2022	2023
2nd Concession Road btwn Algonquin Forest Drive & Queensville Sideroad	10733	4768	7069	6632	6195	5758	4673	2913	2326
2nd Concession Road btwn Algonquin Forest Drive & Doane Road	5182	5286	4337	4334	4372	3722	4213	4313	3895
	15915	10054	11406	10966	10567	9480	8886	7226	6221

	2019	2023
Projection	8969.71	6116.35
GR	-9.1%	

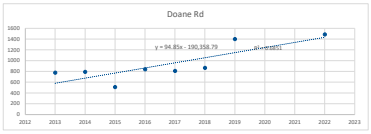


1%

Doane Road

Description	2013	2014	2015	2016	2017	2018	2019	2022
Doane Road btwn Anchor Court & Doane Road West/Yonge Street	777	793	510	639	809	867	1403	1489

	2019	2022
Projection	1143.36	1427.91
GR	7.7%	

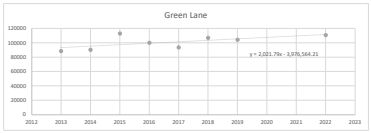


2%

Green Lane

Description	2013	2014	2015	2016	2017	2018	2019	2020	2022	2023
Green Lane West btwn Lady Gwillim Avenue & Woodspring Avenue	13841	14118	22580	20042	16161	21438	20843		22119	
Green Lane West btwn Lady Gwillim Avenue & Miller's Sideroad/Bathurst Street	22202	22714	22143	22752	22718	24184	24087		25661	28439
Green Lane West btwn Green Lane @ Costco Plaza Entrance & Woodspring Avenue	14874	15171	22580	20042	18718	20247	20843		22119	
Green Lane West btwn Commercial Ent (Costco) & Yonge Street	18269	18634	23017	17112	17274	17437	17599	22435	18677	
Green Lane West btwn Commercial Ent (Costco) & Green Lane @ Costco Plaza Entra	19237	19622	22580	20042	18718	23600	20843		22119	
	88423	90259	112900	99990	93589	106906	104215		110695	

	2019	2022
Projection	105429.8	111495.2
GR	1.9%	



2%

Leslie Street

Description	2013	2014	2015	2016	2017	2018	2019	2021	2022	2023
Leslie Street btwn Balmoral Heights & Holborn Road	14163	12319	14886	12632	13510	12437	14230	6762	12048	8869
Holborn Road btwn Leslie Street & Leslie Street				67						

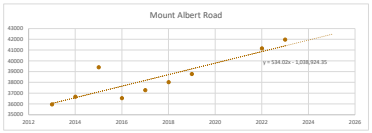
	2019	2023
Projection	11593.26	9619.82
GR	-4.6%	

1%

Mount Albert Road

Description	2013	2014	2015	2016	2017	2018	2019	2022	2023
Valleyview Avenue btwn Mount Albert Road/Stonehill Boulevard & Mount Albert Ro			227						
Mount Albert Road btwn Earls Court/Newmarket Street & Stonehill Boulevard/Valle	7586	7738	7893	7378	7526	7676	7830	8309	8475
Mount Albert Road btwn Earls Court/Newmarket Street & Hill Street	5366	6493	6991	7165	7309	7455	7604	8069	8231
Mount Albert Road btwn Colony Trail Boulevard/Holland River Boulevard & Stonehi	8018	8178	8481	7290	7436	7584	7736	8210	8374
Mount Albert Road btwn Christopher Street & Yonge Street/Queen Street	7152	7295	8024	7344	7491	7641	7794	8271	8436
Mount Albert Road btwn Christopher Street & Hill Street	6841	6978	8024	7371	7518	7669	7822	8301	8467
Earls Court btwn Mount Albert Road/Newmarket Street & Mount Albert Road/Newe			121						
	35963	36682	39413	36548	37280	38025	38786	41160	41983

	2019	2023
Projection	39262.03	41398.11
GR	1.3%	

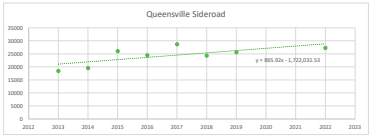


2%

Queensville Sideroad

Description	2013	2014	2015	2016	2017	2018	2019	2022	2023
Queensville Sideroad West btwn Oak Avenue & Pleasant Avenue/Park Avenue	5079	5996	8582	8135	10482	7867	8394	9908	
Queensville Sideroad West btwn Karissa Lane & Pleasant Avenue/Park Avenue	5535	5646	8582	8135	9830	7867	8394	8908	
Queensville Sideroad West btwn Bathurst Street & Karissa Lane	7044	7891	8890	8189	8399	8610	8821	9453	9663
	18457	19533	26054	24459	28711	24344	25609	27269	

	2019	2022
Projection	26260.95	28858.71
GR	3.2%	

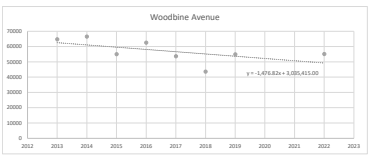


2%

Woodbine Avenue

Description	2013	2014	2015	2016	2017	2018	2019	2022	2023
Woodbine Avenue btwn Hornes Road & Queensville Sideroad	16908	17653	13573	17898	12844	3139	11803	10707	10342
Woodbine Avenue btwn Doane Road & Hornes Road	15621	15933	15494	15670	15847	16023	16200	16729	16906
Woodbine Avenue btwn Doane Road & Farr Avenue	16556	16887	11368	14504	10426	9912	12457	13220	
Woodbine Avenue btwn Doane Road & Doane Road	15713	16027	14558	14550	14541	14533	14524	14499	14491
Farr Avenue btwn Woodbine Avenue & Woodbine Avenue			86						
	64798	66500	54993	62622	53658	43607	54984	55155	

	2019	2023
Projection	53715.42	47808.14
GR	-2.9%	

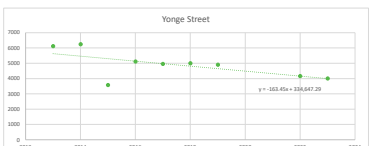


1%

Yonge Street

Description	2013	2014	2015	2016	2017	2018	2019	2022	2023
Yonge Street btwn Maple Street & Queensville Sideroad	3044	3105	1354	2182	1997	2015	1898	1075	891
Yonge Street btwn Cedar Street & Maple Street	3084	3146	2228	2936	2963	2989	3016	3096	3122
Maple Street btwn Yonge Street & Yonge Street			41						
	6128	6251	3582	5118	4960	5004	4914	4171	4013

	2019	2023
Projection	4641.74	3987.94
GR	-3.7%	



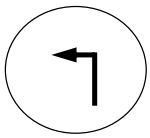
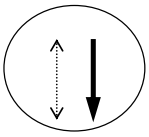
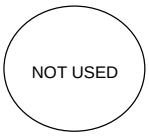
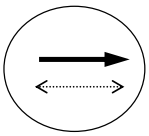
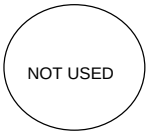
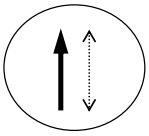
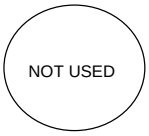
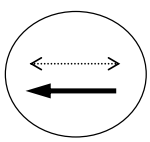
1%

Appendix C

Signal Timing Plans

LOCATION:	**Mt Albert Rd (YR 13) & 2nd Concession Rd (YR 34)**	*MUNICIPALITY:*	**East Gwilliambury**
CTCS:	**90**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA with APS**	*CONTROLLER/CABINET TYPE:*	**Econolite Cobalt / TS2T1**
PREPARED/CHECKED BY:	**MQL**	*CONFLICT FLASH:*	**Red & Red**
PREPARATION DATE:	**August 10, 2021**	*DESIGN WALK SPEED:*	**1.0 m/s (FDW based on full crossing at 1.2 m/s)**
IMPLEMENTATION DATE:	**September 27, 2021**	*CHANNEL/DROP:*	

N

NEMA Phase (York)		Free 24 hrs, 7 days	Phase Mode (Fixed/Demanded/Callable)	Remarks
	Local Plan	Pattern 99		
	System Plan	Plan 99		
1. N/B Left Turn Arrow 	WLK FDW MIN 7 EXT 3 MAX1 7 MAX2 0 AMB 3 ALR 1 SPLIT	**0**	Callable/Extendable by Setback Loop	Pedestrian Minimums: NSWK = 7 sec., NSFD = 15 sec. EWWK = 7 sec., EWFD = 21 sec.
				Emergency vehicle pre-emption 3: Serve NSG/NSDW min 20 secs and up to 100 secs if there are continuous emergency calls in NS direction.
2. Southbound  2nd Concession Rd	WLK 7 FDW 15 MIN 22 EXT 0 MAX1 22 MAX2 0 AMB 4.5 ALR 2.5 SPLIT	**0**	Veh max recall only no ped recall	**Emergency vehicle pre-emption 4:** Serve EWG/EWDW min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction.
				APS Extended Push Activation = 3 sec When activated, APS is on for 7 secs. APS installed on 2016-11-17
				Clearances changes due to speed limit revision.
3.  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT			
4. Eastbound  Mt Albert Rd	WLK 7 FDW 21 MIN 30 EXT 6 MAX1 40 MAX2 0 AMB 4.5 ALR 3.5 SPLIT	**0**	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	
5.  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT			
6. Northbound  2nd Concession Rd	WLK 7 FDW 15 MIN 22 EXT 0 MAX1 22 MAX2 0 AMB 4.5 ALR 2.5 SPLIT	**0**	Veh max recall only no ped recall	
7.  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT			
8. Westbound  Mt Albert Rd	WLK 7 FDW 21 MIN 30 EXT 6 MAX1 40 MAX2 0 AMB 4.5 ALR 3.5 SPLIT	**0**	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	
	CL OF VP	**0 (FREE)** **0 (FREE)** 0 (FREE)		

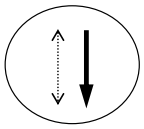
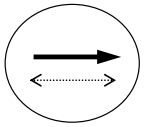
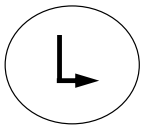
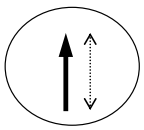
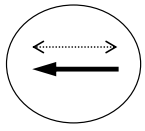
LEGEND:

SA - Semi-Actuated signal
WLK - Walk time
FDW - Flashing Don't Walk time
MIN - Minimum green time
EXT - Extension time
MAX1 - Maximum green time 1
MAX2 - Maximum green time 2
AMB - Amber
ALR -All Red
CL - Cycle Length
OF - Offset
VP - Vehicle Permissive
NSWK - North/South Walk
EWWK - East/West Walk
NSG - North/South Green
EWG - East/West Green
NSFD - North/South Flashing Don't Walk
EWFD - East/West Flashing Don't Walk
TSP - Transit Priority
APS - Audible Pedestrian Signal
RLC - Red Light Camera

NOTES:

LOCATION:	**Mt Albert (YR 13) /Queen St & Yonge St (YR 51)**	*MUNICIPALITY:*	**East Gwillimbury**
CTCS:	**92**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA**	*CONTROLLER/CABINET TYPE:*	**Econolite Cobalt / TS2T1**
PREPARED/CHECKED BY:	**AM**	*CONFLICT FLASH:*	**Red & Red**
PREPARATION DATE:	**April 9, 2020**	*DESIGN WALK SPEED:*	**1.0 m/s (FDW based on full crossing at 1.2 m/s)**
IMPLEMENTATION DATE:	**September 1, 2020**	*CHANNEL/DROP:*	

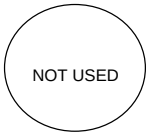
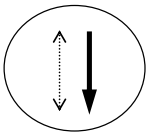
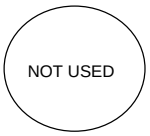
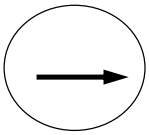
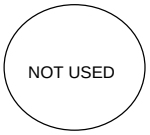
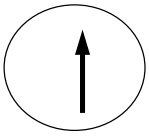
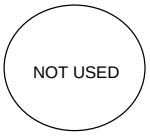
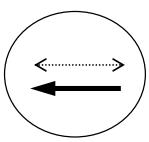
N

NEMA Phase (York)		Free 24 Hrs Daily	Phase Mode (Fixed/Demanded/Callable)	Remarks
	Local Plan	Pattern 99		
	System Plan	Plan 99		
NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT			Pedestrian Minimums: NSWK = 7 sec., NSFD = 15 sec. EWWK = 7 sec., EWFD = 16 sec.
2. Southbound  Yonge St	WLK 7 FDW 15 MIN 30 EXT 0 MAX1 30 MAX2 0 AMB 4.0 ALR 2.5 SPLIT	**0**	Fixed	**Emergency vehicle pre-emption 3:** Serve NSG/NSDW min 20 secs and up to 100 secs if there are continuous emergency calls in NS direction. **Emergency vehicle pre-emption 4:** Serve EWG/EWDW min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction.
3. NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT			EW phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum EWG is provided. If ongoing vehicle demand exists on the stopbar loop, the EWG is capable of providing vehicle extensions up to the maximum green. If a pedestrian call is received, the pedestrian minimum will be served. The EWWK & EWFD are only displayed on the pedestrian signal heads if a pedestrian call is received. Extension time is based on vehicle demand. Unused extension time is given to the NSG.
4. Eastbound  Queen St	WLK 7 FDW 16 MIN 10 EXT 3 MAX1 30 MAX2 0 AMB 4.0 ALR 2.5 SPLIT	**0**	Callable by stopbar loop by Pedestrian push button Extendable by stopbar loop.	During coordinated operation, the signal constantly cycles through main street FDW to improve response time to side street vehicle and pedestrian demand.
5. S/B Left Turn Arrow 	WLK FDW MIN 7 EXT 3 MAX1 7 MAX2 0 AMB 3.0 ALR 1.0 SPLIT		Veh Max Recall	During free plan, signal rests in NSWK and does not cycle through NSFD unless there is side street vehicle or pedestrian demand. NSFD reverts to NSWK if there is no side street demand at the end of the NSFD.
6. Northbound  Yonge St	WLK 7 FDW 15 MIN 30 EXT 0 MAX1 30 MAX2 0 AMB 4.0 ALR 2.5 SPLIT	**0**	Fixed	
7. NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT			**LEGEND:** SA - Semi-Actuated signal WLK - Walk time FDW - Flashing Don't Walk time MIN - Minimum green time EXT - Extension time MAX1 - Maximum green time 1 MAX2 - Maximum green time 2 AMB - Amber ALR -All Red CL - Cycle Length OF - Offset VP - Vehicle Permissive NSWK - North/South Walk EWWK - East/West Walk NSG - North/South Green EWG - East/West Green NSFD - North/South Flashing Don't Walk EWFD - East/West Flashing Don't Walk TSP - Transit Priority APS - Audible Pedestrian Signal RLC - Red Light Camera
8. Westbound  Mt Albert	WLK 7 FDW 16 MIN 10 EXT 3 MAX1 30 MAX2 0 AMB 4.0 ALR 2.5 SPLIT	**0**	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	
	CL OF VP	**0 (FREE)** **0 (FREE)** 0 (FREE)		

NOTES:

LOCATION:	**Yonge St/Hwy 11 (YR 1) & Morning Sdrd**	*MUNICIPALITY:*	**East Gwillimbury**
CTCS:	**309**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA**	*CONTROLLER/CABINET TYPE:*	**Econolite Cobalt / TS2T1**
PREPARED/CHECKED BY:	**MQL**	*CONFLICT FLASH:*	**Red & Red**
PREPARATION DATE:	**August 12, 2021**	*DESIGN WALK SPEED:*	**1.0 m/s (FDW based on full crossing at 1.2 m/s)**
IMPLEMENTATION DATE:	**September 27, 2021**	*CHANNEL/DROP:*	

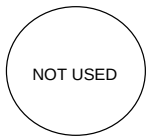
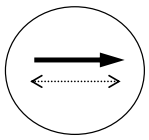
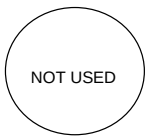
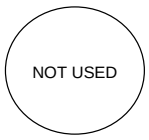
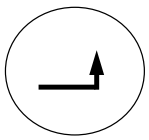
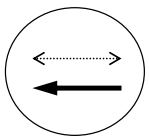
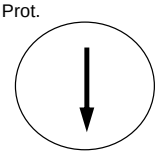
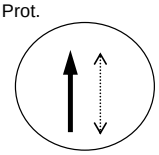
N

NEMA Phase (York)		AM 6:30-8:00 M-F	PM 15:30-19:30 M-F	AM School 8:00-9:00 M-F	Free 9:00-15:30, 19:30-6:30 M-F 24 hrs Sat & Sun	Phase Mode (Fixed/Demanded/Callable)	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 99		
	System Plan	Plan 1	Plan 2	Plan 3	Plan 99		
1.  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT						Pedestrian Minimums: NSWK = 7 sec., NSFD = 18 sec. EWWK = 7 sec., EWFD = 24 sec.
2. Southbound  Yonge St/Hwy 11	WLK 7 FDW 18 MIN 20 EXT 6 MAX1 60 MAX2 0 AMB 5.0 ALR 2.5 SPLIT	**80**	**70**	**75**	**0**	Fixed	**Emergency vehicle pre-emption 3:** Serve NSG/NSDW min 20 secs and up to 100 secs if there are continuous emergency calls in NS direction. **Emergency vehicle pre-emption 4:** Serve EWG/EWDW min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction.
3.  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT						EW phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum EWG is 10 seconds. If ongoing vehicle demand exists on the stopbar loop, the EWG is capable of providing vehicle extensions up to the maximum green split during coordinated operation or 30 secs during Free operation. If a pedestrian call is received, the pedestrian minimum will be served. The EWWK & EWFD are only displayed on the pedestrian signal heads if a pedestrian call is received. Extension time is based on vehicle demand. Unused extension time is given to the NSG.
4. Eastbound  Morning Sdrd	WLK 7 FDW 24 MIN 10 EXT 3 MAX1 30 MAX2 0 AMB 4.5 ALR 3.0 SPLIT	**50**	**50**	**55**	**0**	Callable by stopbar loop Extendable by stopbar loop.	During coordinated operation, the signal constantly cycles through main street FDW to improve response time to side street vehicle and pedestrian demand.
5.  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT						During free plan, signal rests in NSWK and does not cycle through NSFD unless there is side street vehicle or pedestrian demand. NSFD reverts to NSWK if there is no side street demand at the end of the NSFD. **Clearances changes due to speed limit revision.**
6. Northbound  Yonge St/Hwy 11	WLK 7 FDW 18 MIN 20 EXT 6 MAX1 60 MAX2 0 AMB 5.0 ALR 2.5 SPLIT	**80**	**70**	**75**	**0**	Fixed	
7.  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT						**LEGEND:** SA - Semi-Actuated signal WLK - Walk time FDW - Flashing Don't Walk time MIN - Minimum green time EXT - Extension time MAX1 - Maximum green time 1 MAX2 - Maximum green time 2 AMB - Amber ALR -All Red CL - Cycle Length OF - Offset VP - Vehicle Permissive NSWK - North/South Walk EWWK - East/West Walk NSG - North/South Green EWG - East/West Green NSFD - North/South Flashing Don't Walk EWFD - East/West Flashing Don't Walk TSP - Transit Priority APS - Audible Pedestrian Signal RLC - Red Light Camera
8. Westbound  Yonge St	WLK 7 FDW 24 MIN 10 EXT 3 MAX1 30 MAX2 0 AMB 4.5 ALR 3.0 SPLIT	**50**	**50**	**55**	**0**	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	
	CL OF VP	**130** **0** 18	**120** **70** 18	**130** **0** 18	**0 (FREE)** **0 (FREE)** 0 (FREE)		

NOTES:

LOCATION:	**Hwy 404 NB Offramp & Green Lane (YR 19)**	*MUNICIPALITY:*	**East Gwillimbury**
CTCS:	**515 (MTO Signal)**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA**	*CONTROLLER/CABINET TYPE:*	**Econolite Cobalt / TS2T1**
PREPARED/CHECKED BY:	**MQL**		
PREPARATION DATE:	**May 13, 2019**	*DESIGN WALK SPEED:*	
IMPLEMENTATION DATE:	**July 2, 2019**	*CHANNEL/DROP:*	

N

NEMA Phase (MTO)	Normal Time	Free 7 days, 24 hours Pattern 99 Plan 99	Phase Mode (Fixed/Demanded/Callable)	Remarks
1. W/B Left Turn Arrow  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT			Pedestrian Minimums: EWWK = 7 sec., EWFD = 26 sec. NSWK = 7 sec., NSFD = 26 sec. **Emergency vehicle pre-emption 3:** Serve EWG/EWDW min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction.
2. Eastbound  Green Lane	WLK 7 FDW 26 MIN 20 EXT 4 MAX1 47 MAX2 0 AMB 5.0 ALR 3.0 SPLIT	**0**	Veh Min Recall Ped Recall	NS phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum NSG is 10 seconds. If ongoing vehicle demand exists on the stopbar loop, the NSG is capable of providing vehicle extensions up to the maximum green. If a pedestrian call is received, the pedestrian minimum will be served.
3.  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT			**Please see reverse page for Pretime.**
4. Southbound  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT			
5. E/B Left Turn Arrow 	WLK FDW MIN 7 EXT 3 MAX1 15 MAX2 0 AMB 3 ALR 1 SPLIT	**0**	Callable/Extendable by loop 5 secs delay	
6. Westbound  Green Lane	WLK 7 FDW 26 MIN 20 EXT 4 MAX1 47 MAX2 0 AMB 5.0 ALR 3.0 SPLIT	**0**	Veh Min Recall Ped Recall	
7. Southbound Through Fully Prot.  Parking Lot Entrance	WLK 0 FDW 0 MIN 10 EXT 3 MAX1 23 MAX2 0 AMB 4.5 ALR 3.0 SPLIT	**0**	Callable/Extendable by stopbar loop 10 secs delay Split Phase	**LEGEND:** SA - Semi-Actuated signal WLK - Walk time FDW - Flashing Don't Walk time MIN - Minimum green time EXT - Extension time MAX1 - Maximum green time 1 MAX2 - Maximum green time 2 AMB - Amber ALR -All Red CL - Cycle Length OF - Offset VP - Vehicle Permissive NSWK - North/South Walk EWWK - East/West Walk NSG - North/South Green EWG - East/West Green NSFD - North/South Flashing Don't Walk EWFD - East/West Flashing Don't Walk TSP - Transit Priority APS - Audible Pedestrian Signal
8. Northbound Through Fully Prot.  Hwy 404 NB Off Ramp	WLK 7 FDW 26 MIN 10 EXT 3 MAX1 50 MAX2 0 AMB 4.5 ALR 3.0 SPLIT	**0**	Callable by stopbar loop and/or pushbutton Extendable by stopbar loop 10 secs delay Split Phase	
	CL	**0 (FREE)**		

	OF VP	**0 (FREE)** **0 (FREE)**		APS - Audible Pedestrian Signal RLC - Red Light Camera

NOTES:

LOCATION:	**Hwy 404 NB Offramp & Green Lane (YR 19)**	*MUNICIPALITY:*	**East Gwillimbury**
CTCS:	**515 (MTO Signal)**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA**	*CONTROLLER/CABINET TYPE:*	**Econolite Cobalt / TS2T1**
PREPARED/CHECKED BY:	**MQL**		
PREPARATION DATE:	**May 13, 2019**	*DESIGN WALK SPEED:*	
IMPLEMENTATION DATE:		*CHANNEL/DROP:*	

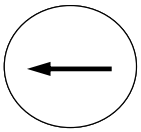
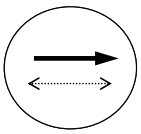
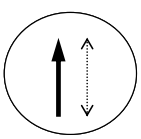
N

NEMA Phase (MTO)		Pre Time	Free 7 days, 24 hours Pattern 99 Plan 99	Phase Mode (Fixed/Demanded/Callable)	Remarks
1. W/B Left Turn Arrow NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT				Pedestrian Minimums: EWWK = 7 sec., EWFD = 26 sec. NSWK = 7 sec., NSFD = 26 sec. **Emergency vehicle pre-emption 3:** Serve EWG/EWDW min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction.
2. Eastbound Green Lane	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT	7 26 **40** 4 **50** **45** 5.0 3.0	**0**	Veh call 7:00-8:00, 15:00-17:00, M-F, All other times Veh Min Recall	NS phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum NSG is 10 seconds. If ongoing vehicle demand exists on the stopbar loop, the NSG is capable of providing vehicle extensions up to the maximum green. If a pedestrian call is received, the pedestrian minimum will be served.
3. NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT				
4. Southbound NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT				
5. E/B Left Turn Arrow	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT	7 3 15 0 3 1	**0**	Veh call 7:00-8:00, M-F, All other times Veh Min Recall 5 secs delay	
6. Westbound Green Lane	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT	7 26 **40** 4 **50** **45** 5.0 3.0	**0**	Veh call 7:00-8:00, 15:00-17:00, M-F, All other times Veh Min Recall	
7. Southbound Through Fully Prot. Parking Lot Entrance	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT	0 0 **20** 3 **25** **40** 4.5 3.0	**0**	Veh call 15:00-17:00, M-F, All other times Veh Min Recall 10 secs delay Split Phase	**LEGEND:** SA - Semi-Actuated signal WLK - Walk time FDW - Flashing Don't Walk time MIN - Minimum green time EXT - Extension time MAX1 - Maximum green time 1 MAX2 - Maximum green time 2 AMB - Amber ALR -All Red CL - Cycle Length OF - Offset VP - Vehicle Permissive NSWK - North/South Walk EWWK - East/West Walk NSG - North/South Green EWG - East/West Green NSFD - North/South Flashing Don't Walk EWFD - East/West Flashing Don't Walk TSP - Transit Priority APS - Audible Pedestrian Signal RLC - Red Light Camera
8. Northbound Through Fully Prot. Hwy 404 NB Off Ramp	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT	7 26 **20** 3 50 **40** 4.5 3.0	**0**	Veh call 15:00-17:00, M-F, All other times Veh Min Recall 10 secs delay Split Phase	
	CL OF VP		**0 (FREE)** **0 (FREE)** **0 (FREE)**		

NOTES:

LOCATION:	**Green Lane (YR 19) & Harry Walker Pkwy**	*MUNICIPALITY:*	**East Gwillimbury**
CTCS:	**551**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA**	*CONTROLLER/CABINET TYPE:*	**Econolite EOS / TS2T1**
PREPARED/CHECKED BY:	**MQL**	*CONFLICT FLASH:*	**Red & Red**
PREPARATION DATE:	**March 5, 2024**	*DESIGN WALK SPEED:*	**1.0 m/s (FDW based on full crossing at 1.2 m/s)**
IMPLEMENTATION DATE:	**March 5, 2024**	*CHANNEL/DROP:*	

N

NEMA Phase (York)		AM 6:00-10:00 M-F	PM 15:00-19:30 M-F	OFF 10:00-15:00, 19:30-23:59 M-F 8:00-23:59 Sat & Sun	Free 00:00-6:00 M-F 00:00-8:00 Sat & Sun	Phase Mode (Fixed/Demanded/Callable)	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 99		
	System Plan	Plan 1	Plan 2	Plan 3	Plan 99		
1. NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT						Pedestrian Minimums: EWWK = 7 sec., EWFD = 19 sec. NSWK = 7 sec., NSFD = 18 sec.
2. Westbound  Green Lane	WLK 0 FDW 0 MIN 30 EXT 0 MAX1 30 MAX2 0 AMB 5.0 ALR 2.5 SPLIT	**97**	**83**	**77**	**0**	Fixed	**Emergency vehicle pre-emption 3:** Serve EWG/EWDW min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction. **Emergency vehicle pre-emption 4:** Serve NBG/NSDW min 20 secs and up to 100 secs if there are continuous emergency calls in NS direction. NS phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum NSG is 10 seconds. If ongoing vehicle demand exists on the stopbar loop, the NSG is capable of providing vehicle extensions up to the maximum green split during coordinated operation or 30 secs during Free operation. If a pedestrian call is received, the pedestrian minimum will be served. The NSWK & NSFD are only displayed on the pedestrian signal heads if a pedestrian call is received. Extension time is based on vehicle demand. Unused extension time is given to the EWG. During coordinated operation, the signal constantly cycles through main street FDW to improve response time to side street vehicle and pedestrian demand. EWFD reverts to EWWK if there is no side street demand at the end of the EWFD. Vehicle clearance changed due to speed limit reduction. Upgrade to EOS firmware EOS adaptive splits disabled Cycle length decreased in PM.
3. NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT						
4. NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT						
5. W/B Left Turn Arrow	WLK FDW MIN 7 EXT 3 MAX1 7 MAX2 0 AMB 3.0 ALR 1.0 SPLIT	**28**	**12**	**14**	**0**		
6. Eastbound  Green Lane	WLK 7 FDW 19 MIN 30 EXT 0 MAX1 30 MAX2 0 AMB 5.0 ALR 2.5 SPLIT	**69**	**71**	**63**	**0**	Fixed	
7. NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT						
8. Northbound  Harry Walker Pkwy	WLK 7 FDW 18 MIN 10 EXT 3 MAX1 30 MAX2 0 AMB 4.0 ALR 3.0 SPLIT	**33**	**57**	**43**	**0**	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop	
	CL OF VP	**130** **8** 19	**140** **47** 19	**120** **23** 19	**0 (FREE)** **0 (FREE)** 0 (FREE)		

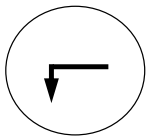
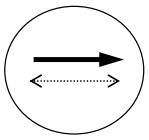
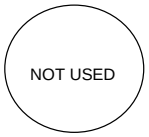
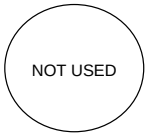
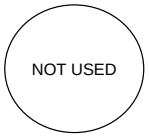
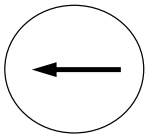
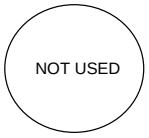
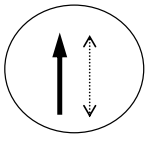
LEGEND:

SA - Semi-Actuated signal
WLK - Walk time
FDW - Flashing Don't Walk time
MIN - Minimum green time
EXT - Extension time
MAX1 - Maximum green time 1
MAX2 - Maximum green time 2
AMB - Amber
ALR -All Red
CL - Cycle Length
OF - Offset
VP - Vehicle Permissive
NSWK - North/South Walk
EWWK - East/West Walk
NSG - North/South Green
EWG - East/West Green
NSFD - North/South Flashing Don't Walk
EWFD - East/West Flashing Don't Walk
TSP - Transit Priority
APS - Audible Pedestrian Signal
RLC - Red Light Camera

NOTES:

LOCATION:	**Hwy 404 NB Offramp & Queensville Sdrd (YR 77)**	***MUNICIPALITY:***	**East Gwillimbury**
CTCS:	**830 (MTO Signal)**	***COMPUTER SYSTEM:***	**Centracs**
MODE/COMMENT:	**SA**	***CONTROLLER/CABINET TYPE:***	**Econolite Cobalt / TS2T1**
PREPARED/CHECKED BY:	**MQL**		
PREPARATION DATE:	**April 11, 2019**	***DESIGN WALK SPEED:***	**1.0 m/s (FDW based on full crossing at 1.2 m/s)**
IMPLEMENTATION DATE:	**May 2, 2019**	***CHANNEL/DROP:***	

N

NEMA Phase (MTO)	Normal Time	AM/PM 6:30-9:30, 15:00-19:00, M-F Pattern 98 Plan 98	Free All Other Times Pattern 99 Plan 99	Phase Mode (Fixed/Demanded/Callable)	Remarks
1. W/B Left Turn Arrow 	WLK FDW MIN 7 EXT 2 MAX1 17 MAX2 17 AMB 3.0 ALR 1.0 SPLIT	MAX2 USED **0**	**0**	Callable/Extendable by loop	Pedestrian Minimums: EWWK = 7 sec., EWFD = 34 sec. NSWK = 7 sec., NSFD = 23 sec. **Emergency vehicle pre-emption 3:** Serve EWG/EWDW min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction.
2. Eastbound  Queensville Sdrd	WLK 7 FDW 34 MIN 20 EXT 4 MAX1 30 MAX2 50 AMB 5.0 ALR 3.0 SPLIT	MAX2 USED **0**	**0**	Veh Min Recall	NB phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum NBG is 10 seconds. If ongoing vehicle demand exists on the stopbar loop, the NBG is capable of providing vehicle extensions up to the maximum green. If a pedestrian call is received, the pedestrian minimum will be served. **Please see reverse page for Pretime.**
3.  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT				
4. Southbound  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT				
5. E/B Left Turn Arrow  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT				
6. Westbound  Queensville Sdrd	WLK 0 FDW 0 MIN 20 EXT 4 MAX1 30 MAX2 50 AMB 5.0 ALR 3.0 SPLIT	MAX2 USED **0**	**0**	Veh Min Recall	
7. S/B Left Turn Arrow  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT				**LEGEND:** SA - Semi-Actuated signal WLK - Walk time FDW - Flashing Don't Walk time MIN - Minimum green time EXT - Extension time MAX1 - Maximum green time 1 MAX2 - Maximum green time 2 AMB - Amber ALR -All Red CL - Cycle Length OF - Offset VP - Vehicle Permissive NSWK - North/South Walk EWWK - East/West Walk NSG - North/South Green EWG - East/West Green NSFD - North/South Flashing Don't Walk EWFD - East/West Flashing Don't Walk TSP - Transit Priority APS - Audible Pedestrian Signal RLC - Red Light Camera
8. Northbound  Hwy 404 NB Off Ramp	WLK 7 FDW 23 MIN 10 EXT 3 MAX1 40 MAX2 40 AMB 4.5 ALR 3.5 SPLIT	MAX2 USED **0**	**0**	Callable by stopbar loop and/or pushbutton Extendable by stopbar loop 5 secs delay	
	CL OF VP	**0 (FREE)** **0 (FREE)** **0 (FREE)**	**0 (FREE)** **0 (FREE)** **0 (FREE)**		

NOTES:

LOCATION:	**Hwy 404 NB Offramp & Queensville Sdrd (YR 77)**	*MUNICIPALITY:*	**East Gwillimbury**
CTCS:	**830 (MTO Signal)**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA**	*CONTROLLER/CABINET TYPE:*	**Econolite Cobalt / TS2T1**
PREPARED/CHECKED BY:	**MQL**		
PREPARATION DATE:	**April 11, 2019**	*DESIGN WALK SPEED:*	**1.0 m/s (FDW based on full crossing at 1.2 m/s)**
IMPLEMENTATION DATE:		*CHANNEL/DROP:*	

N

NEMA Phase (MTO)	Pre Time	AM/PM 6:30-9:30, 15:00-19:00, M-F Pattern 98 Plan 98	Free All Other Times Pattern 99 Plan 99	Phase Mode (Fixed/Demanded/Callable)	Remarks
1. W/B Left Turn Arrow	WLK FDW MIN 7 EXT 2 MAX1 17 MAX2 17 AMB 3.0 ALR 1.0 SPLIT	MAX2 USED **0**	**0**	Veh call 7:00-8:00, M-F, All other times Veh Min Recall	Pedestrian Minimums: EWWK = 7 sec., EWFD = 34 sec. NSWK = 7 sec., NSFD = 23 sec. **Emergency vehicle pre-emption 3:** Serve EWG/EWDW min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction.
2. Eastbound Queensville Sdrd	WLK 7 FDW 34 MIN **30** EXT 4 MAX1 30 MAX2 50 AMB 5.0 ALR 3.0 SPLIT	MAX2 USED **0**	**0**	Veh call 7:00-8:00, 15:00-17:00, M-F, All other times Veh Min Recall	NB phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum NBG is 10 seconds. If ongoing vehicle demand exists on the stopbar loop, the NBG is capable of providing vehicle extensions up to the maximum green. If a pedestrian call is received, the pedestrian minimum will be served.
3. NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT				
4. Southbound NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT				
5. E/B Left Turn Arrow NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT				
6. Westbound Queensville Sdrd	WLK 7 FDW 34 MIN **30** EXT 4 MAX1 30 MAX2 50 AMB 5.0 ALR 3.0 SPLIT	MAX2 USED **0**	**0**	Veh call 7:00-8:00, 15:00-17:00, M-F, All other times Veh Min Recall	
7. S/B Left Turn Arrow NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT				
8. Northbound Hwy 404 NB Off Ramp	WLK 7 FDW 23 MIN **20** EXT 3 MAX1 40 MAX2 40 AMB 4.5 ALR 3.5 SPLIT	MAX2 USED **0**	**0**	Veh call 15:00-17:00, M-F, All other times Veh Min Recall 5 secs delay	
	CL OF VP	**0 (FREE)** **0 (FREE)** **0 (FREE)**	**0 (FREE)** **0 (FREE)** **0 (FREE)**		

LEGEND:

SA - Semi-Actuated signal
WLK - Walk time
FDW - Flashing Don't Walk time
MIN - Minimum green time
EXT - Extension time
MAX1 - Maximum green time 1
MAX2 - Maximum green time 2
AMB - Amber
ALR -All Red
CL - Cycle Length
OF - Offset
VP - Vehicle Permissive
NSWK - North/South Walk
EWWK - East/West Walk
NSG - North/South Green
EWG - East/West Green
NSFD - North/South Flashing Don't Walk
EWFD - East/West Flashing Don't Walk
TSP - Transit Priority
APS - Audible Pedestrian Signal
RLC - Red Light Camera

NOTES:

LOCATION:	**Highway 404 SB Offramp & Green Lane (YR 19)**	*MUNICIPALITY:*	**East Gwillimbury**
CTCS #:	**860 (MTO Signal)**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA**	*CONTROLLER/CABINET TYPE:*	**Econolite Cobalt / TS2T1**
PREPARED/CHECKED BY:	**MQL**		
PREPARATION DATE:	**September 20, 2016**	*DESIGN WALK SPEED:*	**1.0 m/s (FDW based on full crossing at 1.2 m/s)**
IMPLEMENTATION DATE:	**November 10, 2016**	*CHANNEL/DROP:*	

N

MTO Phase		Actuated Time	Pre-Time	All Day Plan 24 hrs, 7 days	Phase Mode (Fixed/Demanded/Callable)	Remarks
1.	NOT USED	WLK				Pedestrian Minimums: No Pedestrian Crossing
		FDW				
		MIN				**Emergency vehicle pre-emption 3:**
		EXT				Serve EWG/EWDW min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction.
		MAX1				
		MAX2				
		AMB				
		ALR				
		SPLIT				
2. Eastbound		WLK			Extendable by loop during Actuated Operation	Signal rests in EWWK and does not cycle through EWFD unless there is side street vehicle or pedestrian demand.
		FDW				
		MIN	20	30		
		EXT	4	4		**SB 10 secs delay time on presence detection applied to both Actuated and Pre-timed operation**
		MAX1	45	45		
		MAX2	0	0	**Max Recall 7:00-9:00, 15:00-17:00, M-F during Pre-Time Operation**	
		AMB	5.9	5.9		
		ALR	1.8	1.8		
	Green Lane	SPLIT		**0**		
3.	NOT USED	WLK				
		FDW				
		MIN				
		EXT				
		MAX1				
		MAX2				
		AMB				
		ALR				
		SPLIT				
4.		WLK			Callable & Extendable by stopbar loop during Actuated Operation	
		FDW				
		MIN	10	15		
		EXT	3	3		
		MAX1	30	30		
		MAX2	0	0	**Max Recall 7:00-9:00, 15:00-17:00, M-F during Pre-Time Operation**	
		AMB	5.1	5.1		
		ALR	2.1	2.1		
	Hwy 404 SB Offramp	SPLIT		**0**		
5.	NOT USED	WLK				
		FDW				
		MIN				
		EXT				
		MAX1				
		MAX2				
		AMB				
		ALR				
		SPLIT				
6. Westbound		WLK			Extendable by loop during Actuated Operation	
		FDW				
		MIN	20	30		
		EXT	4	4		
		MAX1	45	45		
		MAX2	0	0	**Max Recall 7:00-9:00, 15:00-17:00, M-F during Pre-Time Operation**	
		AMB	5.9	5.9		
		ALR	1.8	1.8		
	Green Lane	SPLIT		**0**		
7.	NOT USED	WLK				
		FDW				
		MIN				
		EXT				
		MAX1				
		MAX2				
		AMB				
		ALR				
		SPLIT				
8. Northbound		WLK				
		FDW				
		MIN	10	15		
		EXT	3	3		
		MAX1	30	30		
		MAX2	0	0		
	NOT USED	AMB	5.1	5.1		
		ALR	2.1	2.1		
		SPLIT		**0**		
		CL		0 (FREE)		
		OF		0 (FREE)		
		VP		0 (FREE)		

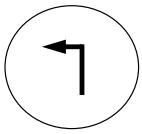
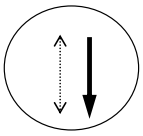
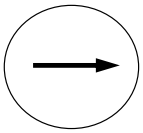
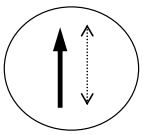
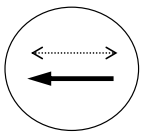
LEGEND:

SA - Semi-Actuated signal
WLK - Walk time
FDW - Flashing Don't Walk time
MIN - Minimum green time
EXT - Extension time
MAX1 - Maximum green time 1
MAX2 - Maximum green time 2
AMB - Amber
ALR -All Red
CL - Cycle Length
OF - Offset
VP - Vehicle Permissive
NSWK - North/South Walk
EWWK - East/West Walk
NSG - North/South Green
EWG - East/West Green
NSFD - North/South Flashing Don't Walk
EWFD - East/West Flashing Don't Walk
TSP - Transit Priority
APS - Audible Pedestrian Signal
RLC - Red Light Camera

NOTES:

LOCATION:	**Woodbine Ave (YR 8) & Mount Albert Rd (YR 13)**	***MUNICIPALITY:***	**Town of East Gwillimbury**
CTCS:	**54**	***COMPUTER SYSTEM:***	**Centracs**
MODE/COMMENT:	**Fully Actuated**	***CONTROLLER/CABINET TYPE:***	**Econolite Cobalt / TS2 T1**
PREPARED/CHECKED BY:	**MQL**	***CONFLICT FLASH:***	**Red & Red**
PREPARATION DATE:	**August 13, 2021**	***DESIGN WALK SPEED:***	**1.0 m/s (FDW based on full crossing at 1.2 m/s)**
IMPLEMENTATION DATE:	**September 27, 2021**	***CHANNEL/DROP:***	

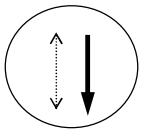
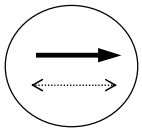
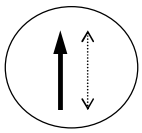
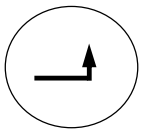
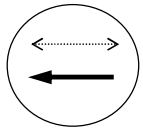
N

NEMA Phase (York)		**AM/PM 7:00 - 7:30 & 16:00-19:00 M-F**	**Free 7:30-16:00 & 19:00-7:00 M-F & 24 hrs Sat & Sun**	**Phase Mode (Fixed/Callable)**	**Remarks**
	Local Plan	Pattern 1	Pattern 99		
	System Plan	Plan 1	Plan 99		
1. N/B Left Turn Arrow 	WLK FDW MIN 7 EXT 3 MAX1 7 MAX2 0 AMB 3 ALR 1 SPLIT	**12**	**0**	Callable/Extendable by Setback Loop	Pedestrian Minimums: NSWK = 7 secs; NSFD = 24 secs EWWK = 7 secs; EWFD = 25 secs **Emergency vehicle pre-emption 3:** Serve NSG/NSDW min 20 secs and up to 100 secs if there are continuous emergency calls in NS direction. **Emergency vehicle pre-emption 4:** Serve EWG/EWDW min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction.
2. Southbound  Woodbine Ave (YR 8)	WLK 7 FDW 24 MIN 15 EXT 6 MAX1 30 MAX2 0 AMB 5.5 ALR 2.0 SPLIT	**46**	**0**	Veh Max recall on plan1 Veh min recall on free Callable by pushbutton Extendable by long distance loop During Free plan	EW phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum EWG will be served. If ongoing vehicle demand exists on the stopbar loop, the EWG is capable of providing vehicle extensions up to the maximum green split during coordinated operation or serve MAX1 during Free operation. If a pedestrian call is received, the pedestrian minimum will be served. The EWWK & EWFD are only displayed on the pedestrian signal heads if a pedestrian call is received. Extension time is based on vehicle demand. Unused extension time is given to the NSG.
3. NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT				During coordinated operation, the signal constantly cycles through main street FDW to improve response time to side street vehicle and pedestrian demand.
4. Eastbound  Mount Albert Rd (YR 13)	WLK 0 FDW 0 MIN 10 EXT 3 MAX1 40 MAX2 0 AMB 5.0 ALR 3.0 SPLIT	**42**	**0**	Callable by stopbar loop Extendable by stopbar loop.	NSFD reverts to NSWK if there is no side street demand at the end of the NSFD. During coordinated operation, phases 2 & 6 will always serve the split times. Any unused extension times will be allocated to NSG and be added to phases 2 & 6 split times. During Free plan, phases 2 & 6 will serve the vehicle minimum recall and extendable by long distance loop. If ongoing vehicle demand exists on the long distance loop, the NSG is capable of providing vehicle extensions up to MAX1. NS phase is callable by pedestrian actuation and if a pedestrian call is received, the pedestrian minimum will be served. The NSWK & NSFD are only displayed on the pedestrian signal heads if a pedestrian call is received.
5. NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT				Clearances changes due to speed limit revision.
6. Northbound  Woodbine Ave (YR 8)	WLK 7 FDW 24 MIN 15 EXT 6 MAX1 30 MAX2 0 AMB 5.5 ALR 2.0 SPLIT	**58**	**0**	Veh Max recall on plan1 Veh min recall on free Callable by pushbutton Extendable by long distance loop During Free plan	
7. NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT				**LEGEND:** SA - Semi-Actuated signal WLK - Walk time FDW - Flashing Don't Walk time MIN - Minimum green time EXT - Extension time MAX1 - Maximum green time 1 MAX2 - Maximum green time 2 AMB - Amber ALR -All Red CL - Cycle Length OF - Offset VP - Vehicle Permissive NSWK - North/South Walk EWWK - East/West Walk NSG - North/South Green EWG - East/West Green NSFD - North/South Flashing Don't Walk EWFD - East/West Flashing Don't Walk TSP - Transit Priority APS - Audible Pedestrian Signal RLC - Red Light Camera
8. Westbound  Mount Albert Rd (YR 13)	WLK 7 FDW 25 MIN 10 EXT 3 MAX1 40 MAX2 0 AMB 5.0 ALR 3.0 SPLIT	**42**	**0**	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	
	CL OF VP	**100** **0** 24	**0 (FREE)** **0 (FREE)** 0 (FREE)		

NOTES: **No pedestrian crossing on South Leg**

LOCATION:	**Leslie St (YR 12) & Queensville (YR 77)**	*MUNICIPALITY:*	**East Gwilliumbury**
CTCS:	**85**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA with APS**	*CONTROLLER/CABINET TYPE:*	**Econolite Cobalt / TS2T1**
PREPARED/CHECKED BY:	**MQL**	*CONFLICT FLASH:*	**Red & Red**
PREPARATION DATE:	**August 29, 2023**	*DESIGN WALK SPEED:*	**1.0 m/s (FDW based on full crossing at 1.2 m/s)**
IMPLEMENTATION DATE:	**August 29, 2023**		

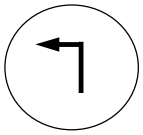
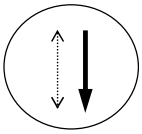
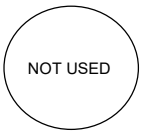
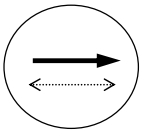
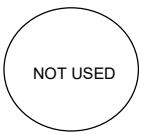
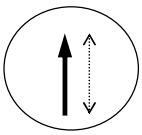
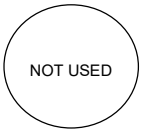
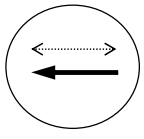
N

NEMA Phase (York)		AM 7:00-9:30 MAX2 in use	Free 24 Hrs Daily	Phase Mode (Fixed/Callable)	Remarks
	Local Plan	Pattern 1	Pattern 99		
	System Plan	Plan 1	Plan 99		
NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT				Pedestrian Minimums: NSWK = 7 sec., NSFD = 20 sec. EWWK = 7 sec., EWFD = 13 sec.
					Emergency vehicle pre-emption 3: Serve NSG/NSDW min 20 secs and up to 100 secs if there are continuous emergency calls in NS direction.
2. Southbound  Leslie St	WLK 7 FDW 20 MIN 30 EXT 0 MAX1 30 MAX2 50 AMB 4.0 ALR 3.0 SPLIT	50 0	0	Fixed	**Emergency vehicle pre-emption 4:** Serve EWG/EWDW min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction.
3. NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT				EW phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum EWG is served. If ongoing vehicle demand exists on the stopbar loop, the EWG is capable of providing vehicle extensions up to the maximum green split during coordinated operation or MAX1 during Free operation. If a pedestrian call is received, the pedestrian minimum will be served. The EWWK & EWFD are only displayed on the pedestrian signal heads if a pedestrian call is received. Extension time is based on vehicle demand. Unused extension time is given to the NSG.
4. Eastbound  Queensville	WLK 7 FDW 13 MIN 10 EXT 6 MAX1 40 MAX2 30 AMB 4.5 ALR 2.0 SPLIT	30 0	0	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	During free plan, signal rests in NSWK and does not cycle through NSFD unless there is side street vehicle or pedestrian demand.
NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT				NSFD reverts to NSWK if there is no side street demand at the end of the NSFD.
					MAX2 plan operates 7:00-9:30 M-F
					APS Extended Push Activation = 3 sec When activated, APS is on for 7 secs. APS installed on 2016-10-26
					WB increased to address WB delay in PM
6. Northbound  Leslie St	WLK 7 FDW 20 MIN 30 EXT 0 MAX1 30 MAX2 50 AMB 4.0 ALR 3.0 SPLIT	50 0	0	Fixed	
7. E/B Left Turn Arrow 	WLK FDW MIN 7 EXT 3 MAX1 15 MAX2 15 AMB 3.0 ALR 1.0 SPLIT	15 0	0	Calleble by Setback Loop Extendable by Setback loop.	**LEGEND:** SA - Semi-Actuated signal FA - Fully Actuated signal WLK - Walk time FDW - Flashing Don't Walk time MIN - Minimum green time EXT - Extension time MAX1 - Maximum green time 1 MAX2 - Maximum green time 2 AMB - Amber ALR -All Red CL - Cycle Length OF - Offset VP - Vehicle Permissive NSWK - North/South Walk EWWK - East/West Walk NSG - North/South Green EWG - East/West Green NSFD - North/South Flashing Don't Walk EWFD - East/West Flashing Don't Walk TSP - Transit Signal Priority APS - Audible Pedestrian Signal RLC - Red Light Camera
8. Westbound  Queensville Rd	WLK 7 FDW 13 MIN 10 EXT 6 MAX1 40 MAX2 30 AMB 4.5 ALR 2.0 SPLIT	30 0	0	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	
	CL OF VP	**0 (FREE)** **0 (FREE)** 0 (FREE)	**0 (FREE)** **0 (FREE)** 0 (FREE)		

NOTES:

LOCATION:	**Yonge St (YR 1) & Bradford St / Thompson St**	*MUNICIPALITY:*	**East Gwillimbury**
CTCS:	**93**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA**	*CONTROLLER/CABINET TYPE:*	**Econolite Cobalt / TS2T1**
PREPARED/CHECKED BY:	**AM**	*CONFLICT FLASH:*	**Red & Red**
PREPARATION DATE:	**April 8, 2020**	*DESIGN WALK SPEED:*	**1.0 m/s (FDW based on full crossing at 1.2 m/s)**
IMPLEMENTATION DATE:	**September 1, 2020**	*CHANNEL/DROP:*	

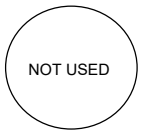
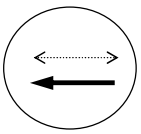
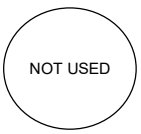
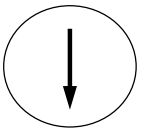
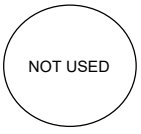
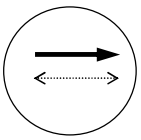
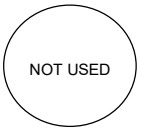
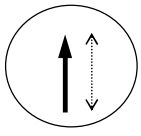
N

NEMA Phase (York)		Free 24 Hrs Daily	Phase Mode (Fixed/Demanded/Callable)	Remarks
	Local Plan	Pattern 99		
	System Plan	Plan 99		
1. N/B Left Turn Arrow 	WLK FDW MIN 7 EXT 3 MAX1 7 MAX2 0 AMB 3.0 ALR 1.0 SPLIT	 **0**	Callable/Extendable by Setback Loop	Pedestrian Minimums: NSWK = 7 sec., NSFD = 19 sec. EWWK = 7 sec., EWFD = 18 sec. **Emergency vehicle pre-emption 3:** Serve NSG/NSDW min 20 secs and up to 100 secs if there are continuous emergency calls in NS direction.
2. Southbound  Yonge St	WLK 7 FDW 19 MIN 30 EXT 0 MAX1 30 MAX2 0 AMB 4.0 ALR 2.5 SPLIT	 **0**	Fixed	EW phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum EWG is 10 seconds. If ongoing vehicle demand exists on the stopbar loop, the EWG is capable of providing vehicle extensions up to the maximum green split during coordinated operation or 19 secs during Free operation. If a pedestrian call is received, the pedestrian minimum will be served. The EWWK & EWFD are only displayed on the pedestrian signal heads if a pedestrian call is received. Extension time is based on vehicle demand. Unused extension time is given to the NSG.
3.  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT			During coordinated operation, the signal constantly cycles through main street FDW to improve response time to side street vehicle and pedestrian demand.
4. Eastbound  Bradford St	WLK 7 FDW 18 MIN 10 EXT 3 MAX1 28 MAX2 0 AMB 4.0 ALR 3.0 SPLIT	 **0**	Callable by stopbar loop by Pedestrian push button Extendable by stopbar loop.	During free plan, signal rests in NSWK and does not cycle through NSFD unless there is side street vehicle or pedestrian demand. NSFD reverts to NSWK if there is no side street demand at the end of the NSFD.
 NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT	 **0**	Callable/Extendable by Setback Loop	
6. Northbound  Yonge St	WLK 7 FDW 19 MIN 30 EXT 0 MAX1 30 MAX2 0 AMB 4.0 ALR 2.5 SPLIT	 **0**	Fixed	
7.  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT			**LEGEND:** SA - Semi-Actuated signal WLK - Walk time FDW - Flashing Don't Walk time MIN - Minimum green time EXT - Extension time MAX1 - Maximum green time 1 MAX2 - Maximum green time 2 AMB - Amber ALR -All Red CL - Cycle Length OF - Offset VP - Vehicle Permissive NSWK - North/South Walk EWWK - East/West Walk NSG - North/South Green EWG - East/West Green NSFD - North/South Flashing Don't Walk EWFD - East/West Flashing Don't Walk TSP - Transit Priority APS - Audible Pedestrian Signal RLC - Red Light Camera
8. Westbound  Thompson St	WLK 7 FDW 18 MIN 10 EXT 3 MAX1 28 MAX2 0 AMB 4.0 ALR 3.0 SPLIT	 **0**	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	
	CL OF VP	**0 (FREE)** **0 (FREE)** 0 (FREE)		

NOTES:

LOCATION:	2nd Concession (YR 34) & Queensville Sideroad (YR 77)	*MUNICIPALITY:*	East Gwillimbury
CTCS:	628	*COMPUTER SYSTEM:*	Centracs
MODE/COMMENT:	FA	*CONTROLLER/CABINET TYPE:*	Econolite Cobalt / TS2T1
PREPARED/CHECKED BY:	MQL	*CONFLICT FLASH:*	Red & Red
PREPARATION DATE:	October 5, 2023	*DESIGN WALK SPEED:*	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	October 5, 2023		

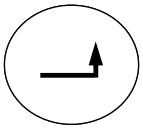
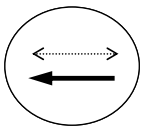
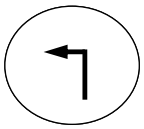
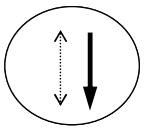
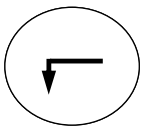
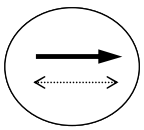
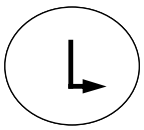
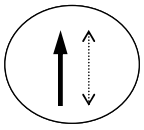
N

NEMA Phase (York)		Free 24 Hrs Daily	Phase Mode (Fixed/Demanded/Callable)	Remarks
	Local Plan	Pattern 99		
	System Plan	Plan 99		
	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT	**0**		Pedestrian Minimums: NSWK= 7 sec; NSFD=20 sec EWWK=7 sec; EWFD=19 sec **Emergency vehicle pre-emption 3:** Serve EWG/EWFD min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction.
2. Westbound  Queensville Sdrd	WLK 7 FDW 19 MIN 20 EXT 6 MAX1 40 MAX2 0 AMB 5.0 ALR 2.0 SPLIT	**0**	Veh Min Recall Callable by pushbutton Extendable by long distance loop MAX int =30 sec with 2 sec increaments	**Emergency vehicle pre-emption 4:** Serve NSG/NSFD min 20 secs and up to 100 secs if there are continuous emergency calls in NS direction.
	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT	**0**		NS phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum NSG is 10 seconds. If ongoing vehicle demand exists on the stopbar loop, the NSG is capable of providing vehicle extensions up to the maximum green split during coordinated operation or 19 secs during Free operation. If a pedestrian call is received, the pedestrian minimum will be served. The NSWK & NSFD are only displayed on the pedestrian signal heads if a pedestrian call is received. Extension time is based on vehicle demand. Unused extension time is given to the EWG.
4. Southbound  2nd Concession	WLK FDW MIN 10 EXT 3 MAX1 19 MAX2 0 AMB 5.0 ALR 2.0 SPLIT	**0**	Callable by stopbar loop Extendable by stopbar loop. 10 secs detector delay	10 secs detector delay placed
	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT	**0**		
6. Eastbound  Queensville Sdrd	WLK 7 FDW 19 MIN 20 EXT 6 MAX1 40 MAX2 0 AMB 5.0 ALR 2.0 SPLIT	**0**	Veh Min Recall Callable by pushbutton Extendable by long distance loop MAX int =30 sec with 2 sec increaments	
	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT	**0**		**LEGEND:** SA - Semi-Actuated signal FA- Fully Actuated WLK - Walk time FDW - Flashing Don't Walk time MIN - Minimum green time EXT - Extension time MAX1 - Maximum green time 1 MAX2 - Maximum green time 2 AMB - Amber ALR -All Red CL - Cycle Length OF - Offset VP - Vehicle Permissive NSWK - North/South Walk EWWK - East/West Walk NSG - North/South Green EWG - East/West Green NSFD - North/South Flashing Don't Walk EWFD - East/West Flashing Don't Walk TSP - Transit Signal Priority APS - Audible Pedestrian Signal RLC - Red Light Camera
8. Northbound  2nd Concession	WLK 7 FDW 20 MIN 10 EXT 3 MAX1 19 MAX2 0 AMB 5.0 ALR 2.0 SPLIT	**0**	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop. 10 secs detector delay	
	CL OF VP	**0 (FREE)** **0 (FREE)** 0 (FREE)		

NOTES: No Ped crossing on west leg

LOCATION:	**Green Lane (YR 19) & 2nd Concession (YR 34)**	*MUNICIPALITY:*	**East Gwillimbury**
CTCS:	**493**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA with APS & RLC**	*CONTROLLER/CABINET TYPE:*	**Econolite EOS / TS2T1**
PREPARED/CHECKED BY:	**MQL**	*CONFLICT FLASH:*	**Red & Red**
PREPARATION DATE:	**March 5, 2024**	*DESIGN WALK SPEED:*	**1.0 m/s (FDW based on full crossing at 1.2 m/s)**
IMPLEMENTATION DATE:	**March 5, 2024**	*CHANNEL/DROP:*	

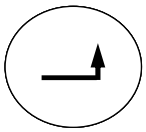
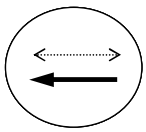
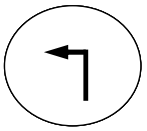
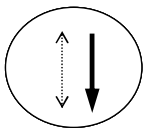
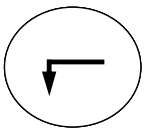
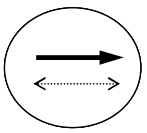
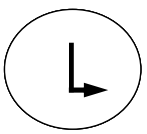
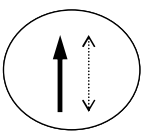
N

NEMA Phase (York)		AM 6:00-10:00 M-F	PM 15:00-19:30 M-F	OFF 10:00-15:00, 19:30-23:59 M-F 8:00-23:59 Sat & Sun	Free 0:00-6:00 M-F 0:00-8:00 Sat & Sun	Phase Mode (Fixed/Demanded/Callable)	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 99		
	System Plan	Plan 1	Plan 2	Plan 3	Plan 99		
1. E/B Left Turn Arrow 	WLK FDW MIN 7 EXT 3 MAX1 15 MAX2 20 AMB 3.0 ALR 1.0 SPLIT	18	20	13	0	Callable/Extendable by Setback Loop	Pedestrian Minimums: EWWK = 7 sec., EWFD = 26 sec. NSWK = 7 sec., NSFD = 26 sec.
2. Westbound  Green Lane	WLK 7 FDW 26 MIN 33 EXT 0 MAX1 33 MAX2 59 AMB 5.0 ALR 2.5 SPLIT	58	53	53	0	Fixed	**Emergency vehicle pre-emption 3:** Serve EWG/EWDW min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction. **Emergency vehicle pre-emption 4:** Serve NSG/NSDW min 20 secs and up to 100 secs if there are continuous emergency calls in NS direction.
3. N/B Left Turn Arrow 	WLK FDW MIN 7 EXT 3 MAX1 7 MAX2 25 AMB 3.0 ALR 1.0 SPLIT	12	25	12	0	Callable/Extendable by Setback Loop	NS phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum NSG is 10 seconds. If ongoing vehicle demand exists on the stopbar loop, the NSG is capable of providing vehicle extensions up to the maximum green split during coordinated operation or 25 secs during Free operation. If a pedestrian call is received, the pedestrian minimum will be served. The NSWK & NSFD are only displayed on the pedestrian signal heads if a pedestrian call is received. Extension time is based on vehicle demand. Unused extension time is given to the EWG.
4. Southbound  2nd Concession	WLK 7 FDW 26 MIN 10 EXT 3 MAX1 25 MAX2 21 AMB 4.5 ALR 3.0 SPLIT	42	**MAX 2 selected in PM coord plan** 42	42	0	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop	During coordinated operation, the signal constantly cycles through main street FDW to improve response time to side street vehicle and pedestrian demand. EWFD reverts to EWWK if there is no side street demand at the end of the EWFD. Vehicle clearance changed due to speed limit reduction.
5. W/B Left Turn Arrow 	WLK FDW MIN 7 EXT 3 MAX1 10 MAX2 20 AMB 3.0 ALR 1.0 SPLIT	12	20	13	0	Callable/Extendable by Setback Loop	APS Extended Push Activation = 3 sec When activated, APS is on for 7 secs. APS installed on 2017-07-05 **MAX2 selected in PM coord plan, which allows the shorter of the MAX2 timing for phase 4/8 and the coord phase split for other phases. This is to increase NBLT but not reduce EWG to address NBL delay in PM. PM coord plan split changed accordingly.**
6. Eastbound  Green Lane	WLK 7 FDW 26 MIN 33 EXT 0 MAX1 33 MAX2 53 AMB 5.0 ALR 2.5 SPLIT	64	53	53	0	Fixed	EBLT increased in PM temporary due to construction closure at Holland Landing area. Upgrade to EOS firmware EOS adaptive splits disabled Cycle length decreased in PM.
7. S/B Left Turn Arrow 	WLK FDW MIN 7 EXT 3 MAX1 7 MAX2 12 AMB 3.0 ALR 1.0 SPLIT	12	12	12	0	Callable/Extendable by Setback Loop	**LEGEND:** SA - Semi-Actuated signal WLK - Walk time FDW - Flashing Don't Walk time MIN - Minimum green time EXT - Extension time MAX1 - Maximum green time 1 MAX2 - Maximum green time 2 AMB - Amber ALR -All Red CL - Cycle Length OF - Offset VP - Vehicle Permissive NSWK - North/South Walk EWWK - East/West Walk NSG - North/South Green EWG - East/West Green NSFD - North/South Flashing Don't Walk EWFD - East/West Flashing Don't Walk TSP - Transit Priority APS - Audible Pedestrian Signal RLC - Red Light Camera
8. Northbound  2nd Concession	WLK 7 FDW 26 MIN 10 EXT 3 MAX1 25 MAX2 34 AMB 4.5 ALR 3.0 SPLIT	42	**MAX 2 selected in PM coord plan** 55	42	0	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop	
	CL OF VP	**130** **9** 26	**140** **47** 26	**120** **24** 26	**0 (FREE)** **0 (FREE)** 0 (FREE)		

NOTES:

LOCATION:	**Leslie St (YR 12) & Green Lane (YR 19)**	*MUNICIPALITY:*	**East Gwillimbury**
CTCS:	**82**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA with RLC & APS**	*CONTROLLER/CABINET TYPE:*	**Econolite EOS / TS2T1**
PREPARED/CHECKED BY:	**MQL**	*CONFLICT FLASH:*	**Red & Red**
PREPARATION DATE:	**March 5, 2024**	*DESIGN WALK SPEED:*	**1.0 m/s (FDW based on full crossing at 1.2 m/s)**
IMPLEMENTATION DATE:	**March 5, 2024**	*CHANNEL/DROP:*	

N

NEMA Phase (York)		AM 6:00-10:00 M-F	PM 15:00-19:30 M-F	OFF 10:00-15:00, 19:30-23:59 M-F 8:00-23:59 Sat & Sun	Free 00:00-6:00 M-F 00:00-8:00 Sat & Sun	Phase Mode (Fixed/Demanded/Callable)	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 99		
	System Plan	Plan 1	Plan 2	Plan 3	Plan 99		
1. E/B Left Turn Arrow 	WLK FDW MIN 7 EXT 3 MAX1 7 MAX2 10 AMB 3 ALR 1 SPLIT	**12**	**12**	**12**	**0**	Callable/Extendable by Setback Loop	Pedestrian Minimums: EWWK = 7 sec., EWFD = 30 sec. NSWK = 7 sec., NSFD = 30 sec.
2. Westbound  Green Lane	WLK 7 FDW 30 MIN 37 EXT 6 MAX1 37 MAX2 70 AMB 5.0 ALR 2.5 SPLIT	**47**	**59**	**46**	**0**	Fixed	**Emergency vehicle pre-emption 3:** Serve EWG/EWDW min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction.
3. N/B Left Turn Arrow 	WLK FDW MIN 7 EXT 3 MAX1 20 MAX2 30 AMB 3 ALR 1 SPLIT	**25**	**23**	**16**	**0**	Callable/Extendable by Setback Loop	**Emergency vehicle pre-emption 4:** Serve NSG/NSDW min 20 secs and up to 100 secs if there are continuous emergency calls in NS direction.
4. Southbound  Leslie St	WLK 7 FDW 30 MIN 10 EXT 3 MAX1 30 MAX2 30 AMB 4.5 ALR 3.5 SPLIT	**46**	**46**	**46**	**0**	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	NS phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum NSG is served. If ongoing vehicle demand exists on the stopbar loop, the NSG is capable of providing vehicle extensions up to the maximum green split during coordinated operation or MAX1 during Free operation. If a pedestrian call is received, the pedestrian minimum will be served. The NSWK & NSFD are only displayed on the pedestrian signal heads if a pedestrian call is received. Extension time is based on vehicle demand. Unused extension time is given to the EWG.
5. W/B Left Turn Arrow 	WLK FDW MIN 7 EXT 3 MAX1 7 MAX2 15 AMB 3 ALR 1 SPLIT	**12**	**12**	**12**	**0**	Callable/Extendable by Setback Loop	During free plan, signal rests in EWWK and does not cycle through EWFD unless there is side street vehicle or pedestrian demand.
6. Eastbound  Green Lane	WLK 7 FDW 30 MIN 37 EXT 6 MAX1 37 MAX2 70 AMB 5.0 ALR 2.5 SPLIT	**47**	**59**	**46**	**0**	Fixed	EWFD reverts to EWWK if there is no side street demand at the end of the EWFD.
7. S/B Left Turn Arrow 	WLK FDW MIN 7 EXT 3 MAX1 7 MAX2 15 AMB 3 ALR 1 SPLIT	**24**	**12**	**12**	**0**	Callable/Extendable by Setback Loop	Vehicle clearance changed due to speed limit reduction.
8. Northbound  Leslie St	WLK 7 FDW 30 MIN 10 EXT 3 MAX1 30 MAX2 30 AMB 4.5 ALR 3.5 SPLIT	**47**	**57**	**50**	**0**	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	MAX2 increased for ph2/6 to address EW delay
	CL OF VP	**130** **111** 30	**140** **53** 30	**120** **2** 30	**0 (FREE)** **0 (FREE)** 0 (FREE)		APS Extended Push Activation = 3 sec When activated, APS is on for 7 secs. APS installed on ? Upgrade to EOS firmware EOS adaptive splits disabled Cycle length decreased in PM.

LEGEND:

SA - Semi-Actuated signal
WLK - Walk time
FDW - Flashing Don't Walk time
MIN - Minimum green time
EXT - Extension time
MAX1 - Maximum green time 1
MAX2 - Maximum green time 2
AMB - Amber
ALR -All Red
CL - Cycle Length
OF - Offset
VP - Vehicle Permissive
NSWK - North/South Walk
EWWK - East/West Walk
NSG - North/South Green
EWG - East/West Green
NSFD - North/South Flashing Don't Walk
EWFD - East/West Flashing Don't Walk
TSP - Transit Priority
APS - Audible Pedestrian Signal
RLC - Red Light Camera

NOTES:

LOCATION:	**Leslie St (YR 12) & Farr Ave/ Mt Albert Rd**	*MUNICIPALITY:*	**East Gwilliumbury**
CTCS:	**84**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA**	*CONTROLLER/CABINET TYPE:*	**Econolite Cobalt / TS2T1**
PREPARED/CHECKED BY:	**MQL**	*CONFLICT FLASH:*	**Red & Red**
PREPARATION DATE:	**March 10, 2020**	*DESIGN WALK SPEED:*	**1.0 m/s (FDW based on full crossing at 1.2 m/s)**
IMPLEMENTATION DATE:	**March 10, 2020**		

N

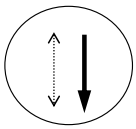
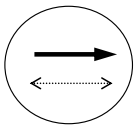
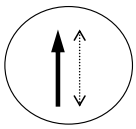
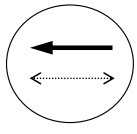
NEMA Phase (York)		AM 7:00-9:00 M-F 9:00-17:00 Sun	PM 16:00-20:00 M-F	Free All Other Times	Phase Mode (Fixed/Callable)	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 99		
	System Plan	Plan 1	Plan 2	Plan 99		
NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT					Pedestrian Minimums: NSWK = 7 sec., NSFD = 16 sec. EWWK = 7 sec., EWFD = 14 sec.
2. Southbound Leslie St	WLK 7 FDW 16 MIN 40 EXT 0 MAX1 40 MAX2 0 AMB 4.0 ALR 3.0 SPLIT	**67**	**66**	**0**	Fixed	**Emergency vehicle pre-emption 3:** Serve NSG/NSDW min 20 secs and up to 100 secs if there are continuous emergency calls in NS direction. **Emergency vehicle pre-emption 4:** Serve EWG/EWDW min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction.
3. NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT					EW phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum EWG is served. If ongoing vehicle demand exists on the stopbar loop, the EWG is capable of providing vehicle extensions up to the maximum green split during coordinated operation or MAX1 during Free operation. If a pedestrian call is received, the pedestrian minimum will be served. The EWWK & EWFD are only displayed on the pedestrian signal heads if a pedestrian call is received. Extension time is based on vehicle demand. Unused extension time is given to the NSG.
4. Eastbound Mt Albert Rd	WLK 7 FDW 14 MIN 10 EXT 3 MAX1 23 MAX2 0 AMB 4.5 ALR 2.5 SPLIT	**33**	**34**	**0**	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	During free plan, signal rests in NSWK and does not cycle through NSFD unless there is side street vehicle or pedestrian demand.
NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT					NSFD reverts to NSWK if there is no side street demand at the end of the NSFD.
6. Northbound Leslie St	WLK 7 FDW 16 MIN 40 EXT 0 MAX1 40 MAX2 0 AMB 4.0 ALR 3.0 SPLIT	**67**	**66**	**0**	Fixed	**Cycle length reduced in AM to reduce EW wait time.**
NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT					
8. Westbound Farr Ave	WLK 7 FDW 14 MIN 10 EXT 3 MAX1 23 MAX2 0 AMB 4.5 ALR 2.5 SPLIT	**33**	**34**	**0**	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	
	CL OF VP	**100** **0** 16	**100** **5** 16	**0 (FREE)** **0 (FREE)** 0 (FREE)		

LEGEND:
SA - Semi-Actuated signal
FA - Fully Actuated signal
WLK - Walk time
FDW - Flashing Don't Walk time
MIN - Minimum green time
EXT - Extension time
MAX1 - Maximum green time 1
MAX2 - Maximum green time 2
AMB - Amber
ALR -All Red
CL - Cycle Length
OF - Offset
VP - Vehicle Permissive
NSWK - North/South Walk
EWWK - East/West Walk
NSG - North/South Green
EWG - East/West Green
NSFD - North/South Flashing Don't Walk
EWFD - East/West Flashing Don't Walk
TSP - Transit Signal Priority
APS - Audible Pedestrian Signal
RLC - Red Light Camera

NOTES:

LOCATION:	**Leslie St (YR 12) & Mt Albert Rd / Civic Centre**	*MUNICIPALITY:*	**East Gwilliumbury**
CTCS:	**83**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA**	*CONTROLLER/CABINET TYPE:*	**Econolite Cobalt / TS2T1**
PREPARED/CHECKED BY:	**MQL**	*CONFLICT FLASH:*	**Red & Red**
PREPARATION DATE:	**May 24, 2022**	*DESIGN WALK SPEED:*	**1.0 m/s (FDW based on full crossing at 1.2 m/s)**
IMPLEMENTATION DATE:	**May 24, 2022**		

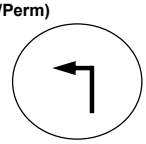
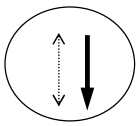
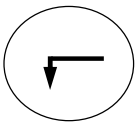
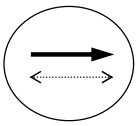
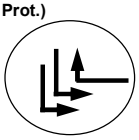
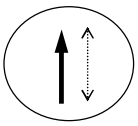
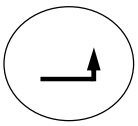
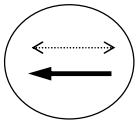
N

NEMA Phase (York)		AM 7:00-9:00 M-F 9:00-17:00 Sun	PM 16:00-20:00 M-F	Free All Other Times	Phase Mode (Fixed/Callable)	Remarks
	Local Plan	Pattern 1	Pattern 2	Pattern 99		
	System Plan	Plan 1	Plan 2	Plan 99		
NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT					Pedestrian Minimums: NSWK = 7 sec., NSFD = 19 sec. EWWK = 7 sec., EWFD = 17 sec.
2. Southbound  Leslie St	WLK 7 FDW 19 MIN 45 EXT 0 MAX1 45 MAX2 0 AMB 4.0 ALR 3.0 SPLIT	**67**	**67**	**0**	Fixed	**Emergency vehicle pre-emption 3:** Serve NSG/NSDW min 20 secs and up to 100 secs if there are continuous emergency calls in NS direction. **Emergency vehicle pre-emption 4:** Serve EWG/EWDW min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction.
3. NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT					EW phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum EWG is served. If ongoing vehicle demand exists on the stopbar loop, the EWG is capable of providing vehicle extensions up to the maximum green split during coordinated operation or MAX1 during Free operation. If a pedestrian call is received, the pedestrian minimum will be served. The EWWK & EWFD are only displayed on the pedestrian signal heads if a pedestrian call is received. Extension time is based on vehicle demand. Unused extension time is given to the NSG.
4. Eastbound  Civic Centre	WLK 7 FDW 17 MIN 10 EXT 3 MAX1 22 MAX2 0 AMB 4.0 ALR 3.5 SPLIT	**33**	**33**	**0**	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	During free plan, signal rests in NSWK and does not cycle through NSFD unless there is side street vehicle or pedestrian demand.
NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT					NSFD reverts to NSWK if there is no side street demand at the end of the NSFD.
6. Northbound  Leslie St	WLK 7 FDW 19 MIN 45 EXT 0 MAX1 45 MAX2 0 AMB 4.0 ALR 3.0 SPLIT	**67**	**67**	**0**	Fixed	**Offset updated after coordination review.** **Signal cycling due to an ongoing developer project to install sanitary sewer along Mount Albert Road and will take a few month - noted Jun 19, 2023**
NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT					
8. Westbound  Mt Albert Rd	WLK 7 FDW 17 MIN 10 EXT 3 MAX1 22 MAX2 0 AMB 4.0 ALR 3.5 SPLIT	**33**	**33**	**0**	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	
	CL	**100**	**100**	**0 (FREE)**		
	OF	**13**	**75**	**0 (FREE)**		
	VP	19	19	0 (FREE)		

LEGEND:
SA - Semi-Actuated signal
FA - Fully Actuated signal
WLK - Walk time
FDW - Flashing Don't Walk time
MIN - Minimum green time
EXT - Extension time
MAX1 - Maximum green time 1
MAX2 - Maximum green time 2
AMB - Amber
ALR -All Red
CL - Cycle Length
OF - Offset
VP - Vehicle Permissive
NSWK - North/South Walk
EWWK - East/West Walk
NSG - North/South Green
EWG - East/West Green
NSFD - North/South Flashing Don't Walk
EWFD - East/West Flashing Don't Walk
TSP - Transit Signal Priority
APS - Audible Pedestrian Signal
RLC - Red Light Camera

NOTES:

LOCATION:	**Yonge St (YR 1) & Green Lane East/West (YR 19)**				***MUNICIPALITY:***	**East Gwillimbury**		
CTCS:	**492**				***COMPUTER SYSTEM:***	**Centracs**		N
MODE/COMMENT:	**SA with RLC**				***CONTROLLER/CABINET TYPE:***	**Econolite EOS / TS2T1**		
PREPARED/CHECKED BY:	**MQL**				***CONFLICT FLASH:***	**Red & Red**		
PREPARATION DATE:	**March 5, 2024**				***DESIGN WALK SPEED:***	**1.0 m/s (FDW based on full crossing at 1.2 m/s)**		
IMPLEMENTATION DATE:	**March 5, 2024**				***CHANNEL/DROP:***			

NEMA Phase (York)		**AM** 8:30-10:00 M-F	**PM** 14:00-19:30 M-F	**OFF** 10:00-14:00, 19:30-23:59 M-F	**AM WKND** 8:00-10:00, 19:00-23:59 Sat& Sun	**PM WKND** 10:00-19:00 Sat& Sun	**Free AM** 6:00-8:30 M-F	**Free** 00:00-6:00 M-F, 00:00-8:00 Sat& Sun	**Phase Mode** (Fixed/Demanded/ Callable)	**Remarks**
	Local Plan	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 98	Pattern 99		
	System Plan	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5	Plan 98	Plan 99		
1. N/B Left Turn Arrow **(Prot/Perm)** 	WLK								Callable/Extendable by Setback Loop Protected/Permissive	Pedestrian Minimums: NSWK = 7 sec., NSFD = 29 sec. EWWK = 7 sec., EWFD = 28 sec.
	FDW									
	MIN 7									**Emergency vehicle pre-emption 3:**
	EXT 3									Serve NSG/NSDW min 20 secs and up to 100 secs if there are continuous emergency calls in NS direction.
	MAX1 10									
	MAX2 10						Use MAX2			
	AMB 3.0									
	ALR 1.0									
	SPLIT	**16**	**15**	**16**	**16**	**22**	**0**	**0**		**Emergency vehicle pre-emption 4:**
2. Southbound  Yonge St	WLK 7								Veh Max Recall No ped recall	Serve EWG/EWDW min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction.
	FDW 29									
	MIN 20									EW phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum EWG is 10 seconds. If ongoing vehicle demand exists on the stopbar loop, the EWG is capable of providing vehicle extensions up to the maximum green split during coordinated operation or 40 secs during Free operation. If a pedestrian call is received, the pedestrian minimum will be served. The EWWK & EWFD are only displayed on the pedestrian signal heads if a pedestrian call is received. Extension time is based on vehicle demand. Unused extension time is given to the NSG.
	EXT 0									
	MAX1 35									
	MAX2 20						Use MAX2			
	AMB 5.0									
	ALR 2.0									
	SPLIT	**56**	**56**	**50**	**56**	**56**	**0**	**0**		
3. W/B Left Turn Arrow 	WLK								Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	
	FDW									
	MIN 7									
	EXT 3									
	MAX1 10									
	MAX2 10						Use MAX2			
	AMB 3.0									
	ALR 1.0									
	SPLIT	**15**	**26**	**21**	**15**	**19**	**0**	**0**		
4. Eastbound  Green Lane W	WLK 7								Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	During coordinated operation, the signal constantly cycles through main street FDW to improve response time to side street vehicle and pedestrian demand.
	FDW 28									
	MIN 10									
	EXT 5									
	MAX1 35									
	MAX2 35						Use MAX2			
	AMB 5.0									
	ALR 2.0									
	SPLIT	**43**	**43**	**43**	**43**	**43**	**0**	**0**		
5. S/B Left Turn Arrow **(Fully Prot.)** 	WLK								**Fully Protected** Callable/Extendable by Stopbar Loop WBRT overlapped	During free plan, signal rests in NSWK and does not cycle through NSFD unless there is side street vehicle or pedestrian demand.
	FDW									
	MIN 10									
	EXT 3									NSFD reverts to NSWK if there is no side street demand at the end of the NSFD.
	MAX1 35									
	MAX2 40						Use MAX2			
	AMB 3.0									
	ALR 2.0									
	SPLIT	**28**	**27**	**22**	**20**	**34**	**0**	**0**		Upgrade to EOS firmware
6. Northbound  Yonge St	WLK 7								Veh Max Recall No ped recall	EBLT loop damaged and added to loop repair list as of Sep 20, 2023
	FDW 29									
	MIN 20									EOS adaptive splits disabled
	EXT 0									Cycle length decreased in PM.
	MAX1 35									
	MAX2 20						Use MAX2			
	AMB 5.0									
	ALR 2.0									
	SPLIT	**44**	**44**	**44**	**52**	**44**	**0**	**0**		
7. E/B Left Turn Arrow 	WLK								Callable/Extendable by Setback Loop	**LEGEND:**
	FDW									
	MIN 7									SA - Semi-Actuated signal
	EXT 3									WLK - Walk time
	MAX1 10									FDW - Flashing Don't Walk time
	MAX2 10						Use MAX2			MIN - Minimum green time
	AMB 3.0									EXT - Extension time
	ALR 1.0									MAX1 - Maximum green time 1
	SPLIT	**15**	**26**	**21**	**12**	**19**	**0**	**0**		MAX2 - Maximum green time 2
8. Westbound  Green Lane E	WLK 7								Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	AMB - Amber
	FDW 28									ALR -All Red
	MIN 10									CL - Cycle Length
	EXT 5									OF - Offset
	MAX1 35									VP - Vehicle Permissive
	MAX2 35						Use MAX2			NSWK - North/South Walk
	AMB 5.0									EWWK - East/West Walk
	ALR 2.0									NSG - North/South Green
	SPLIT	**43**	**43**	**43**	**46**	**43**	**0**	**0**		EWG - East/West Green
	CL	**130**	**140**	**130**	**130**	**140**	**0 (FREE)**	**0 (FREE)**		NSFD - North/South Flashing Don't Walk
	OF	**80**	**14**	**20**	**60**	**10**	**0 (FREE)**	**0 (FREE)**		EWFD - East/West Flashing Don't Walk
	VP	29	29	29	29	29	0 (FREE)	0 (FREE)		TSP - Transit Priority
										APS - Audible Pedestrian Signal
										RLC - Red Light Camera

NOTES:

Appendix D

Base Year (2024) Traffic Operations Reports

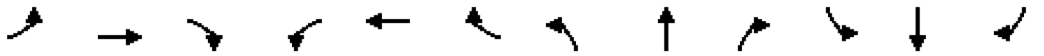
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	392	35	38	356	17	28
Future Volume (vph)	392	35	38	356	17	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	25.0		0.0	0.0
Storage Lanes		0	1		1	0
Taper Length (m)			55.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.989				0.916	
Flt Protected			0.950		0.982	
Satd. Flow (prot)	1769	0	1671	1792	1570	0
Flt Permitted			0.950		0.982	
Satd. Flow (perm)	1769	0	1671	1792	1570	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	171.7			149.2	240.9	
Travel Time (s)	12.4			10.7	17.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	5%	20%	8%	6%	12%	7%
Adj. Flow (vph)	422	38	41	383	18	30
Shared Lane Traffic (%)						
Lane Group Flow (vph)	460	0	41	383	48	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)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.4%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	392	35	38	356	17	28
Future Volume (Veh/h)	392	35	38	356	17	28
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	422	38	41	383	18	30
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			460		906	441
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			460		906	441
tC, single (s)			4.2		6.5	6.3
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			96		94	95
cM capacity (veh/h)			1070		283	606

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	460	41	383	48
Volume Left	0	41	0	18
Volume Right	38	0	0	30
cSH	1700	1070	1700	424
Volume to Capacity	0.27	0.04	0.23	0.11
Queue Length 95th (m)	0.0	1.0	0.0	3.0
Control Delay (s/veh)	0.0	8.5	0.0	14.6
Lane LOS		A		B
Approach Delay (s/veh)	0.0	0.8		14.6
Approach LOS				B

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	39.4%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	346	23	49	259	1	13	32	52	1	66	116
Future Volume (vph)	47	346	23	49	259	1	13	32	52	1	66	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	65.0		0.0	55.0		0.0	40.0		35.0	40.0		0.0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (m)	90.0			100.0			100.0			70.0		
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
Frt		0.991			0.999				0.850		0.904	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1769	0	1770	1791	0	1467	1792	1615	1805	1696	0
Flt Permitted	0.588			0.528			0.634			0.735		
Satd. Flow (perm)	1095	1769	0	984	1791	0	979	1792	1615	1396	1696	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7							60		117	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		186.1			193.8			203.7			234.7	
Travel Time (s)		13.4			14.0			14.7			16.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	6%	13%	2%	6%	0%	23%	6%	0%	0%	0%	2%
Adj. Flow (vph)	51	372	25	53	278	1	14	34	56	1	71	125
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	397	0	53	279	0	14	34	56	1	196	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	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	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	
Detector 1 Position(m)	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	0.6		2.0	0.6	2.0	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	
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	
Detector 1 Queue (s)	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	
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	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			8			4	

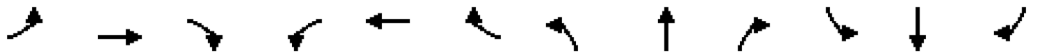
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6			2			8		8	4		
Detector Phase	6	6		2	2		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0		20.0	20.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		34.0	34.0	34.0	17.0	17.0	
Total Split (s)	47.0	47.0		47.0	47.0		26.0	26.0	26.0	26.0	26.0	
Total Split (%)	64.4%	64.4%		64.4%	64.4%		35.6%	35.6%	35.6%	35.6%	35.6%	
Maximum Green (s)	40.0	40.0		40.0	40.0		19.0	19.0	19.0	19.0	19.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	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	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	6.0	6.0		6.0	6.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None	None	None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0			
Flash Don't Walk (s)	19.0	19.0		19.0	19.0		20.0	20.0	20.0			
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0			
Act Effct Green (s)	22.6	22.6		22.6	22.6		10.5	10.5	10.5	10.5	10.5	
Actuated g/C Ratio	0.48	0.48		0.48	0.48		0.22	0.22	0.22	0.22	0.22	
v/c Ratio	0.10	0.47		0.11	0.32		0.06	0.09	0.14	0.00	0.42	
Control Delay (s/veh)	7.5	10.4		7.7	9.0		15.5	15.2	6.1	15.0	10.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	7.5	10.4		7.7	9.0		15.5	15.2	6.1	15.0	10.4	
LOS	A	B		A	A		B	B	A	B	B	
Approach Delay (s/veh)		10.1			8.8			10.4			10.4	
Approach LOS		B			A			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 73			
Actuated Cycle Length: 47.2			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay (s/veh): 9.8		Intersection LOS: A	
Intersection Capacity Utilization 63.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: 2nd Concession Road & Queensville Sideroad

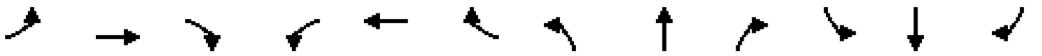
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	51	397	53	279	14	34	56	1	196
v/c Ratio	0.10	0.47	0.11	0.32	0.06	0.09	0.14	0.00	0.42
Control Delay (s/veh)	7.5	10.4	7.7	9.0	15.5	15.2	6.1	15.0	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	7.5	10.4	7.7	9.0	15.5	15.2	6.1	15.0	10.4
Queue Length 50th (m)	2.2	20.1	2.2	13.3	0.9	2.2	0.0	0.1	5.2
Queue Length 95th (m)	6.8	40.4	7.2	27.5	4.7	8.2	6.5	1.1	20.2
Internal Link Dist (m)		162.1		169.8		179.7			210.7
Turn Bay Length (m)	65.0		55.0		40.0		35.0	40.0	
Base Capacity (vph)	934	1511	839	1528	396	726	690	566	757
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.26	0.06	0.18	0.04	0.05	0.08	0.00	0.26

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	346	23	49	259	1	13	32	52	1	66	116
Future Volume (vph)	47	346	23	49	259	1	13	32	52	1	66	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.99		1.00	1.00		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1768		1770	1792		1467	1792	1615	1805	1697	
Flt Permitted	0.59	1.00		0.53	1.00		0.63	1.00	1.00	0.73	1.00	
Satd. Flow (perm)	1096	1768		983	1792		980	1792	1615	1396	1697	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	51	372	25	53	278	1	14	34	56	1	71	125
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	44	0	91	0
Lane Group Flow (vph)	51	393	0	53	279	0	14	34	12	1	105	0
Heavy Vehicles (%)	2%	6%	13%	2%	6%	0%	23%	6%	0%	0%	0%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8		8	4		
Actuated Green, G (s)	22.6	22.6		22.6	22.6		10.4	10.4	10.4	10.4	10.4	
Effective Green, g (s)	22.6	22.6		22.6	22.6		10.4	10.4	10.4	10.4	10.4	
Actuated g/C Ratio	0.48	0.48		0.48	0.48		0.22	0.22	0.22	0.22	0.22	
Clearance Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Vehicle Extension (s)	6.0	6.0		6.0	6.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	527	850		472	861		216	396	357	308	375	
v/s Ratio Prot		c0.22			0.16			0.02			c0.06	
v/s Ratio Perm	0.05			0.05			0.01		0.01	0.00		
v/c Ratio	0.10	0.46		0.11	0.32		0.06	0.09	0.03	0.00	0.28	
Uniform Delay, d1	6.6	8.1		6.7	7.5		14.5	14.5	14.4	14.3	15.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.2	1.1		0.3	0.6		0.1	0.1	0.0	0.0	0.4	
Delay (s)	6.9	9.3		7.0	8.1		14.6	14.6	14.4	14.3	15.6	
Level of Service	A	A		A	A		B	B	B	B	B	
Approach Delay (s/veh)		9.0			7.9			14.5			15.6	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	10.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	47.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

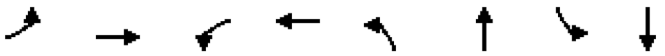


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	284	38	49	148	29	19	69	119	54	151	97
Future Volume (vph)	105	284	38	49	148	29	19	69	119	54	151	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	30.0		0.0	35.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	50.0			45.0			65.0			85.0		
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		1.00	0.98		1.00	0.99	
Frt		0.982			0.975			0.905			0.941	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1775	0	1703	1752	0	1805	1615	0	1703	1665	0
Flt Permitted	0.448			0.557			0.590			0.633		
Satd. Flow (perm)	833	1775	0	998	1752	0	1119	1615	0	1129	1665	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			9			99			37	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		332.1			502.4			233.2			242.2	
Travel Time (s)		23.9			36.2			16.8			17.4	
Confl. Peds. (#/hr)	1					1	1		3	3		1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	21%	6%	3%	17%	0%	6%	4%	6%	8%	4%
Adj. Flow (vph)	111	299	40	52	156	31	20	73	125	57	159	102
Shared Lane Traffic (%)												
Lane Group Flow (vph)	111	339	0	52	187	0	20	198	0	57	261	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	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			6			2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	7.0	10.0		10.0	10.0		30.0	30.0		30.0	30.0	
Minimum Split (s)	11.5	26.5		26.5	26.5		37.0	37.0		37.0	37.0	
Total Split (s)	19.0	55.5		36.5	36.5		57.0	57.0		57.0	57.0	
Total Split (%)	16.9%	49.3%		32.4%	32.4%		50.7%	50.7%		50.7%	50.7%	
Maximum Green (s)	15.0	49.0		30.0	30.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	3.0	4.5		4.5	4.5		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.5		6.5	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	6.0		6.0	6.0		0.2	0.2		0.2	0.2	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)		7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)		13.0		13.0	13.0		20.0	20.0		20.0	20.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	34.4	31.9		17.8	17.8		50.3	50.3		50.3	50.3	
Actuated g/C Ratio	0.36	0.33		0.19	0.19		0.53	0.53		0.53	0.53	
v/c Ratio	0.28	0.57		0.28	0.56		0.03	0.22		0.10	0.29	
Control Delay (s/veh)	22.2	29.3		37.8	40.7		13.7	7.8		14.0	13.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	22.2	29.3		37.8	40.7		13.7	7.8		14.0	13.1	
LOS	C	C		D	D		B	A		B	B	
Approach Delay (s/veh)		27.5			40.1			8.4			13.3	
Approach LOS		C			D			A			B	

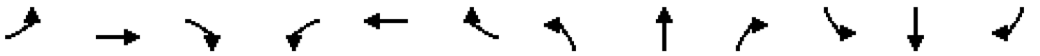
Intersection Summary			
Area Type:	Other		
Cycle Length: 112.5			
Actuated Cycle Length: 95.7			
Natural Cycle: 75			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay (s/veh): 22.9		Intersection LOS: C	
Intersection Capacity Utilization 87.1%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 3: Leslie Street & Queensville Sideroad



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	111	339	52	187	20	198	57	261
v/c Ratio	0.28	0.57	0.28	0.56	0.03	0.22	0.10	0.29
Control Delay (s/veh)	22.2	29.3	37.8	40.7	13.7	7.8	14.0	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.2	29.3	37.8	40.7	13.7	7.8	14.0	13.1
Queue Length 50th (m)	14.5	52.2	8.7	31.6	1.8	9.2	5.2	22.5
Queue Length 95th (m)	26.2	78.7	20.5	55.2	6.7	26.0	14.4	47.9
Internal Link Dist (m)		308.1		478.4		209.2		218.2
Turn Bay Length (m)	25.0		30.0		35.0		25.0	
Base Capacity (vph)	446	917	314	558	587	895	593	891
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	0.25	0.37	0.17	0.34	0.03	0.22	0.10	0.29

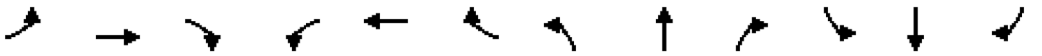
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	284	38	49	148	29	19	69	119	54	151	97
Future Volume (vph)	105	284	38	49	148	29	19	69	119	54	151	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.5		6.5	6.5		7.0	7.0		7.0	7.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.98		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.91		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1768	1775		1703	1753		1803	1616		1696	1666	
Flt Permitted	0.45	1.00		0.56	1.00		0.59	1.00		0.63	1.00	
Satd. Flow (perm)	835	1775		998	1753		1119	1616		1131	1666	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	111	299	40	52	156	31	20	73	125	57	159	102
RTOR Reduction (vph)	0	5	0	0	7	0	0	47	0	0	18	0
Lane Group Flow (vph)	111	334	0	52	180	0	20	151	0	57	243	0
Confl. Peds. (#/hr)	1					1	1		3	3		1
Heavy Vehicles (%)	2%	3%	21%	6%	3%	17%	0%	6%	4%	6%	8%	4%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			6			2	
Permitted Phases	4			8			6			2		
Actuated Green, G (s)	31.9	31.9		17.8	17.8		50.2	50.2		50.2	50.2	
Effective Green, g (s)	31.9	31.9		17.8	17.8		50.2	50.2		50.2	50.2	
Actuated g/C Ratio	0.33	0.33		0.19	0.19		0.53	0.53		0.53	0.53	
Clearance Time (s)	4.0	6.5		6.5	6.5		7.0	7.0		7.0	7.0	
Vehicle Extension (s)	3.0	6.0		6.0	6.0		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)	377	592		185	326		587	848		593	874	
v/s Ratio Prot	0.03	c0.19			0.10			0.09			c0.15	
v/s Ratio Perm	0.07			0.05			0.02			0.05		
v/c Ratio	0.29	0.56		0.28	0.55		0.03	0.18		0.10	0.28	
Uniform Delay, d1	22.9	26.1		33.4	35.3		11.0	11.9		11.4	12.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.4	2.5		2.3	4.3		0.1	0.5		0.3	0.8	
Delay (s)	23.3	28.7		35.7	39.6		11.1	12.4		11.7	13.4	
Level of Service	C	C		D	D		B	B		B	B	
Approach Delay (s/veh)		27.4			38.8			12.2			13.1	
Approach LOS		C			D			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	23.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	95.6	Sum of lost time (s)	17.5
Intersection Capacity Utilization	87.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	1	58	0	10	0	48	53	21	73	2
Future Volume (vph)	0	0	1	58	0	10	0	48	53	21	73	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	20.0		0.0	35.0		0.0	25.0		0.0	35.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	15.0			30.0			35.0			60.0		
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												
Frt		0.850			0.850			0.922			0.996	
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1900	1615	0	1736	1615	0	1900	1651	0	1719	1874	0
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	1900	1615	0	1736	1615	0	1900	1651	0	1719	1874	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		119.9			139.2			203.5			182.5	
Travel Time (s)		8.6			10.0			14.7			13.1	
Confl. Peds. (#/hr)	2		2	2		2			1	1		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	4%	0%	0%	0%	4%	8%	5%	1%	0%
Adj. Flow (vph)	0	0	1	64	0	11	0	53	58	23	80	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1	0	64	11	0	0	111	0	23	82	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
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 24.6%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	58	0	10	0	48	53	21	73	2
Future Volume (Veh/h)	0	0	1	58	0	10	0	48	53	21	73	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	0	0	1	64	0	11	0	53	58	23	80	2
Pedestrians					1			2			2	
Lane Width (m)					3.6			3.6			3.6	
Walking Speed (m/s)					1.2			1.2			1.2	
Percent Blockage					0			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	193	239	83	212	211	85	82			112		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	193	239	83	212	211	85	82			112		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	91	100	99	100			98		
cM capacity (veh/h)	751	655	980	729	678	977	1528			1458		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	0	1	64	11	0	111	23	82
Volume Left	0	0	64	0	0	0	23	0
Volume Right	0	1	0	11	0	58	0	2
cSH	1700	980	729	977	1700	1700	1458	1700
Volume to Capacity	0.00	0.00	0.09	0.01	0.00	0.07	0.02	0.05
Queue Length 95th (m)	0.0	0.0	2.3	0.3	0.0	0.0	0.4	0.0
Control Delay (s/veh)	0.0	8.7	10.4	8.7	0.0	0.0	7.5	0.0
Lane LOS	A	A	B	A			A	
Approach Delay (s/veh)	8.7		10.2		0.0		1.6	
Approach LOS	A		B					

Intersection Summary				
Average Delay	3.2			
Intersection Capacity Utilization	24.6%	ICU Level of Service		A
Analysis Period (min)	15			

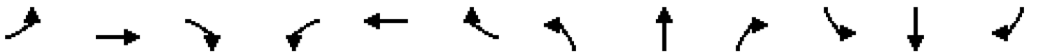
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	54	12	36	46	9	73
Future Volume (vph)	54	12	36	46	9	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.975				0.880	
Flt Protected				0.979	0.994	
Satd. Flow (prot)	1691	0	0	1836	1627	0
Flt Permitted				0.979	0.994	
Satd. Flow (perm)	1691	0	0	1836	1627	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	269.9			266.6	251.7	
Travel Time (s)	19.4			19.2	18.1	
Confl. Peds. (#/hr)		9	9			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	25%	3%	0%	11%	1%
Adj. Flow (vph)	57	13	38	49	10	78
Shared Lane Traffic (%)						
Lane Group Flow (vph)	70	0	0	87	88	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	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)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	22.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	54	12	36	46	9	73
Future Volume (Veh/h)	54	12	36	46	9	73
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	57	13	38	49	10	78
Pedestrians					9	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			79		198	73
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			79		198	73
tC, single (s)			4.1		6.5	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.3
p0 queue free %			97		99	92
cM capacity (veh/h)			1501		746	985

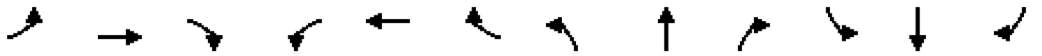
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	70	87	88
Volume Left	0	38	10
Volume Right	13	0	78
cSH	1700	1501	950
Volume to Capacity	0.04	0.03	0.09
Queue Length 95th (m)	0.0	0.6	2.4
Control Delay (s/veh)	0.0	3.4	9.2
Lane LOS		A	A
Approach Delay (s/veh)	0.0	3.4	9.2
Approach LOS			A

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	22.8%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	48	89	55	33	1	33	67	39	1	142	4
Future Volume (vph)	5	48	89	55	33	1	33	67	39	1	142	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		0.0	85.0		0.0	85.0		0.0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (m)	7.5			7.5			85.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.915			0.999			0.945			0.996	
Flt Protected		0.998			0.970		0.950			0.950		
Satd. Flow (prot)	0	1679	0	0	1746	0	1752	3348	0	902	3461	0
Flt Permitted		0.998			0.970		0.950			0.950		
Satd. Flow (perm)	0	1679	0	0	1746	0	1752	3348	0	902	3461	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		264.6			213.3			310.5			329.6	
Travel Time (s)		19.1			15.4			22.4			23.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	40%	6%	0%	7%	3%	0%	3%	3%	0%	100%	4%	0%
Adj. Flow (vph)	5	51	95	59	35	1	35	71	41	1	151	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	151	0	0	95	0	35	112	0	1	155	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			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
Sign Control		Stop			Stop			Free			Free	

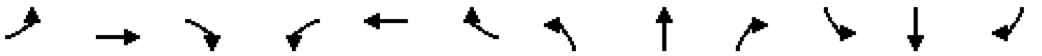
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 33.8%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	48	89	55	33	1	33	67	39	1	142	4
Future Volume (Veh/h)	5	48	89	55	33	1	33	67	39	1	142	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	5	51	95	59	35	1	35	71	41	1	151	4
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	279	337	78	360	319	56	155			112		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	279	337	78	360	319	56	155			112		
tC, single (s)	8.3	6.6	6.9	7.6	6.6	6.9	4.2			6.1		
tC, 2 stage (s)												
tF (s)	3.9	4.1	3.3	3.6	4.0	3.3	2.2			3.2		
p0 queue free %	99	91	90	87	94	100	98			100		
cM capacity (veh/h)	525	559	974	460	579	1005	1415			978		

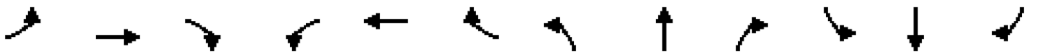
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	151	95	35	47	65	1	101	54
Volume Left	5	59	35	0	0	1	0	0
Volume Right	95	1	0	0	41	0	0	4
cSH	761	501	1415	1700	1700	978	1700	1700
Volume to Capacity	0.20	0.19	0.02	0.03	0.04	0.00	0.06	0.03
Queue Length 95th (m)	5.9	5.5	0.6	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	10.9	13.9	7.6	0.0	0.0	8.7	0.0	0.0
Lane LOS	B	B	A			A		
Approach Delay (s/veh)	10.9	13.9	1.8			0.1		
Approach LOS	B	B						

Intersection Summary				
Average Delay	5.9			
Intersection Capacity Utilization	33.8%	ICU Level of Service		A
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	8	24	4	11	13	14	151	0	18	346	42
Future Volume (vph)	22	8	24	4	11	13	14	151	0	18	346	42
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		0.940			0.935						0.986	
Flt Protected		0.980			0.993			0.996			0.998	
Satd. Flow (prot)	0	1720	0	0	1540	0	0	1754	0	0	1772	0
Flt Permitted		0.980			0.993			0.996			0.998	
Satd. Flow (perm)	0	1720	0	0	1540	0	0	1754	0	0	1772	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		140.8			108.7			299.9			226.9	
Travel Time (s)		10.1			7.8			21.6			16.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	4%	25%	0%	23%	7%	8%	0%	0%	5%	12%
Adj. Flow (vph)	23	8	25	4	11	14	15	157	0	19	360	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	29	0	0	172	0	0	423	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		Stop			Stop			Free			Free	

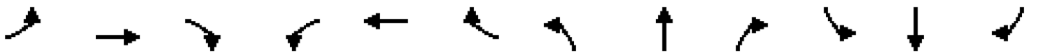
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.8%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	8	24	4	11	13	14	151	0	18	346	42
Future Volume (Veh/h)	22	8	24	4	11	13	14	151	0	18	346	42
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	23	8	25	4	11	14	15	157	0	19	360	44
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	627	607	382	636	629	157	404			157		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	627	607	382	636	629	157	404			157		
tC, single (s)	7.1	6.5	6.2	7.4	6.5	6.4	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.7	4.0	3.5	2.3			2.2		
p0 queue free %	94	98	96	99	97	98	99			99		
cM capacity (veh/h)	376	403	661	334	391	836	1128			1435		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	56	29	172	423
Volume Left	23	4	15	19
Volume Right	25	14	0	44
cSH	471	510	1128	1435
Volume to Capacity	0.12	0.06	0.01	0.01
Queue Length 95th (m)	3.2	1.4	0.3	0.3
Control Delay (s/veh)	13.7	12.5	0.8	0.5
Lane LOS	B	B	A	A
Approach Delay (s/veh)	13.7	12.5	0.8	0.5
Approach LOS	B	B		

Intersection Summary				
Average Delay	2.2			
Intersection Capacity Utilization	38.8%	ICU Level of Service	A	
Analysis Period (min)	15			

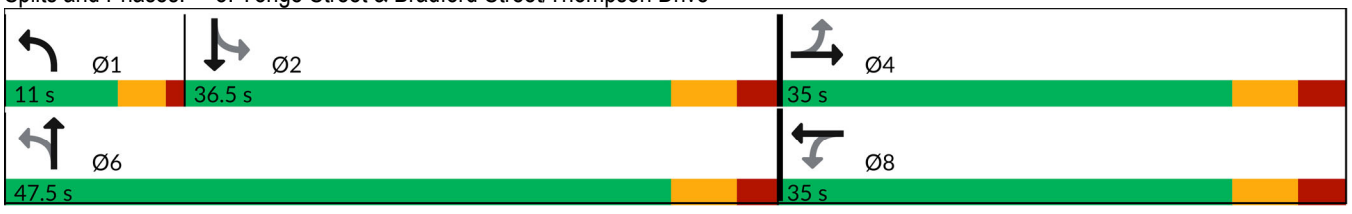


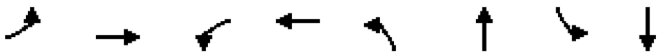
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	23	191	20	18	9	104	98	10	5	202	76
Future Volume (vph)	63	23	191	20	18	9	104	98	10	5	202	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	30.0		0.0	50.0		0.0	55.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	45.0			35.0			55.0			70.0		
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		0.98		1.00			1.00	1.00		1.00	0.99	
Frt		0.866			0.950			0.986			0.959	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1568	0	1805	1741	0	1752	1836	0	1805	1793	0
Flt Permitted	0.738			0.527			0.506			0.681		
Satd. Flow (perm)	1361	1568	0	999	1741	0	933	1836	0	1290	1793	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		210			10			9			26	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		120.0			121.3			155.0			151.3	
Travel Time (s)		8.6			8.7			11.2			10.9	
Confl. Peds. (#/hr)			2	2			1		2	2		1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	9%	2%	0%	0%	11%	3%	1%	10%	0%	1%	1%
Adj. Flow (vph)	69	25	210	22	20	10	114	108	11	5	222	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	69	235	0	22	30	0	114	119	0	5	306	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		pm+pt	NA		Perm	NA	
Protected Phases		4			8		1	6			2	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		1	6		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	30.0		30.0	30.0	
Minimum Split (s)	32.0	32.0		32.0	32.0		11.0	36.5		36.5	36.5	
Total Split (s)	35.0	35.0		35.0	35.0		11.0	47.5		36.5	36.5	
Total Split (%)	42.4%	42.4%		42.4%	42.4%		13.3%	57.6%		44.2%	44.2%	
Maximum Green (s)	28.0	28.0		28.0	28.0		7.0	41.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	4.0		4.0	4.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		1.0	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		4.0	6.5		6.5	6.5	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	0.2		0.2	0.2	
Recall Mode	None	None		None	None		None	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Don't Walk (s)	18.0	18.0		18.0	18.0			19.0		19.0	19.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)	10.6	10.6		10.6	10.6		44.6	42.1		33.2	33.2	
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.67	0.64		0.50	0.50	
v/c Ratio	0.32	0.55		0.14	0.10		0.16	0.10		0.01	0.34	
Control Delay (s/veh)	28.4	11.0		25.5	18.7		4.6	4.8		10.0	11.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	28.4	11.0		25.5	18.7		4.6	4.8		10.0	11.4	
LOS	C	B		C	B		A	A		A	B	
Approach Delay (s/veh)		14.9			21.6			4.7			11.3	
Approach LOS		B			C			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 82.5			
Actuated Cycle Length: 66.2			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay (s/veh): 11.4		Intersection LOS: B	
Intersection Capacity Utilization 83.3%		ICU Level of Service E	
Analysis Period (min) 15			

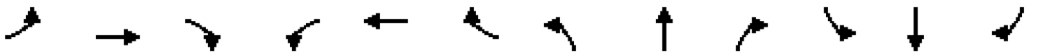
Splits and Phases: 8: Yonge Street & Bradford Street/Thompson Drive





Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	69	235	22	30	114	119	5	306
v/c Ratio	0.32	0.55	0.14	0.10	0.16	0.10	0.01	0.34
Control Delay (s/veh)	28.4	11.0	25.5	18.7	4.6	4.8	10.0	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.4	11.0	25.5	18.7	4.6	4.8	10.0	11.4
Queue Length 50th (m)	7.8	2.7	2.4	2.2	4.1	4.6	0.3	21.0
Queue Length 95th (m)	18.5	20.2	8.1	8.6	9.9	11.1	2.1	40.6
Internal Link Dist (m)		96.0		97.3		131.0		127.3
Turn Bay Length (m)	40.0		30.0		50.0		55.0	
Base Capacity (vph)	575	784	422	742	716	1172	647	911
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	0.12	0.30	0.05	0.04	0.16	0.10	0.01	0.34

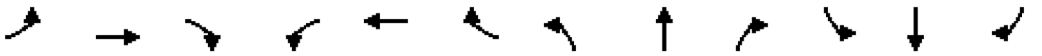
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	23	191	20	18	9	104	98	10	5	202	76
Future Volume (vph)	63	23	191	20	18	9	104	98	10	5	202	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		4.0	6.5		6.5	6.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.98		1.00	1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.87		1.00	0.95		1.00	0.99		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1569		1802	1741		1752	1836		1801	1793	
Flt Permitted	0.74	1.00		0.53	1.00		0.51	1.00		0.68	1.00	
Satd. Flow (perm)	1361	1569		1000	1741		932	1836		1290	1793	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	69	25	210	22	20	10	114	108	11	5	222	84
RTOR Reduction (vph)	0	177	0	0	8	0	0	3	0	0	13	0
Lane Group Flow (vph)	69	58	0	22	22	0	114	116	0	5	293	0
Confl. Peds. (#/hr)			2	2			1		2	2		1
Heavy Vehicles (%)	3%	9%	2%	0%	0%	11%	3%	1%	10%	0%	1%	1%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		1	6			2	
Permitted Phases	4			8			6			2		
Actuated Green, G (s)	10.6	10.6		10.6	10.6		42.9	42.9		33.2	33.2	
Effective Green, g (s)	10.6	10.6		10.6	10.6		42.9	42.9		33.2	33.2	
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.64	0.64		0.50	0.50	
Clearance Time (s)	7.0	7.0		7.0	7.0		4.0	6.5		6.5	6.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	0.2		0.2	0.2	
Lane Grp Cap (vph)	215	248		158	275		666	1175		639	888	
v/s Ratio Prot		0.04			0.01		c0.01	0.06			c0.16	
v/s Ratio Perm	c0.05			0.02			0.09			0.00		
v/c Ratio	0.32	0.23		0.14	0.08		0.17	0.10		0.01	0.33	
Uniform Delay, d1	25.0	24.7		24.3	24.0		4.8	4.6		8.6	10.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.9	0.5		0.4	0.1		0.1	0.2		0.0	1.0	
Delay (s)	25.9	25.1		24.7	24.2		4.9	4.8		8.6	11.2	
Level of Service	C	C		C	C		A	A		A	B	
Approach Delay (s/veh)		25.3			24.4			4.9			11.1	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	67.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

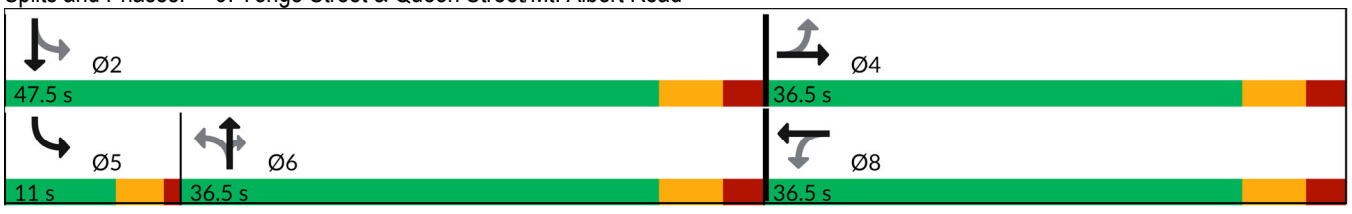


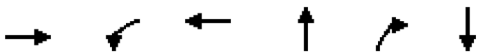
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	10	9	120	0	106	4	78	108	216	198	0
Future Volume (vph)	0	10	9	120	0	106	4	78	108	216	198	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	7.5		0.0	50.0		0.0	0.0		20.0	0.0		0.0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (m)	15.0			35.0			7.5			7.5		
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									0.98		1.00	
Frt		0.932			0.850				0.850			
Flt Protected				0.950				0.998			0.975	
Satd. Flow (prot)	1900	1771	0	1752	1509	0	0	1810	1583	0	1789	0
Flt Permitted				0.744				0.981			0.698	
Satd. Flow (perm)	1900	1771	0	1372	1509	0	0	1779	1549	0	1280	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			862				114			
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		129.2			223.2			177.8			162.6	
Travel Time (s)		9.3			16.1			12.8			11.7	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	3%	0%	7%	0%	5%	2%	5%	2%	0%
Adj. Flow (vph)	0	11	9	126	0	112	4	82	114	227	208	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	126	112	0	0	86	114	0	435	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			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
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	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	
Detector 1 Position(m)	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	0.6		2.0	0.6	2.0	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	
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	
Detector 1 Queue (s)	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	
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	pm+pt	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4			8			6		6	2		
Detector Phase	4	4		8	8		6	6	6	5	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		30.0	30.0	30.0	7.0	30.0	
Minimum Split (s)	29.5	29.5		29.5	29.5		36.5	36.5	36.5	11.0	36.5	
Total Split (s)	36.5	36.5		36.5	36.5		36.5	36.5	36.5	11.0	47.5	
Total Split (%)	43.5%	43.5%		43.5%	43.5%		43.5%	43.5%	43.5%	13.1%	56.5%	
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0	30.0	7.0	41.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5	2.5	1.0	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5			6.5	6.5		6.5	
Lead/Lag							Lag	Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		0.2	0.2	0.2	3.0	0.2	
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0		7.0	
Flash Don't Walk (s)	16.0	16.0		16.0	16.0		15.0	15.0	15.0		15.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0		0	
Act Effct Green (s)		12.0		12.0	12.0			30.0	30.0		41.0	
Actuated g/C Ratio		0.18		0.18	0.18			0.45	0.45		0.62	
v/c Ratio		0.06		0.50	0.11			0.11	0.15		0.52	
Control Delay (s/veh)		16.8		31.8	0.2			11.6	3.3		9.8	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay (s/veh)		16.8		31.8	0.2			11.6	3.3		9.8	
LOS		B		C	A			B	A		A	
Approach Delay (s/veh)		16.8			16.9			6.9			9.8	
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 84			
Actuated Cycle Length: 66.1			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay (s/veh): 11.2		Intersection LOS: B	
Intersection Capacity Utilization 74.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 9: Yonge Street & Queen Street/Mt. Albert Road





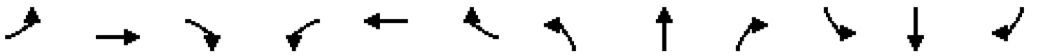
Lane Group	EBT	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	20	126	112	86	114	435
v/c Ratio	0.06	0.50	0.11	0.11	0.15	0.52
Control Delay (s/veh)	16.8	31.8	0.2	11.6	3.3	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.8	31.8	0.2	11.6	3.3	9.8
Queue Length 50th (m)	1.2	14.8	0.0	5.9	0.0	23.3
Queue Length 95th (m)	6.3	29.8	0.0	14.8	8.3	48.2
Internal Link Dist (m)	105.2		199.2	153.8		138.6
Turn Bay Length (m)		50.0			20.0	
Base Capacity (vph)	809	623	1155	808	765	829
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.20	0.10	0.11	0.15	0.52

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	10	9	120	0	106	4	78	108	216	198	0
Future Volume (vph)	0	10	9	120	0	106	4	78	108	216	198	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5		6.5	6.5			6.5	6.5		6.5	
Lane Util. Factor		1.00		1.00	1.00			1.00	1.00		1.00	
Frpb, ped/bikes		1.00		1.00	1.00			1.00	0.98		1.00	
Flpb, ped/bikes		1.00		1.00	1.00			1.00	1.00		1.00	
Frt		0.93		1.00	0.85			1.00	0.85		1.00	
Flt Protected		1.00		0.95	1.00			1.00	1.00		0.97	
Satd. Flow (prot)		1772		1752	1509			1809	1549		1787	
Flt Permitted		1.00		0.74	1.00			0.98	1.00		0.70	
Satd. Flow (perm)		1772		1373	1509			1779	1549		1280	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	11	9	126	0	112	4	82	114	227	208	0
RTOR Reduction (vph)	0	7	0	0	92	0	0	0	62	0	0	0
Lane Group Flow (vph)	0	13	0	126	20	0	0	86	52	0	435	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	0%	0%	0%	3%	0%	7%	0%	5%	2%	5%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	pm+pt	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4			8			6		6	2		
Actuated Green, G (s)		12.1		12.1	12.1			30.1	30.1		41.1	
Effective Green, g (s)		12.1		12.1	12.1			30.1	30.1		41.1	
Actuated g/C Ratio		0.18		0.18	0.18			0.45	0.45		0.62	
Clearance Time (s)		6.5		6.5	6.5			6.5	6.5		6.5	
Vehicle Extension (s)		3.0		3.0	3.0			0.2	0.2		0.2	
Lane Grp Cap (vph)		323		250	275			808	704		848	
v/s Ratio Prot		0.01			0.01						c0.05	
v/s Ratio Perm				c0.09				0.05	0.03		c0.26	
v/c Ratio		0.04		0.50	0.07			0.11	0.07		0.51	
Uniform Delay, d1		22.3		24.3	22.4			10.3	10.2		7.0	
Progression Factor		1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.0		1.6	0.1			0.3	0.2		2.2	
Delay (s)		22.3		25.9	22.5			10.6	10.4		9.2	
Level of Service		C		C	C			B	B		A	
Approach Delay (s/veh)		22.3			24.3			10.5			9.2	
Approach LOS		C			C			B			A	

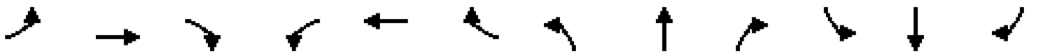
Intersection Summary			
HCM 2000 Control Delay (s/veh)	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	66.2	Sum of lost time (s)	17.0
Intersection Capacity Utilization	74.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	5	0	0	0	6	562	0	0	1419	8
Future Volume (vph)	1	0	5	0	0	0	6	562	0	0	1419	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	0.0		0.0	55.0		20.0	35.0		35.0
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (m)	55.0			7.5			75.0			55.0		
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												
Frt		0.850										0.850
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1805	1615	0	0	1900	0	1805	1776	1900	1900	1863	1615
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1805	1615	0	0	1900	0	1805	1776	1900	1900	1863	1615
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		139.3			169.5			220.7			153.1	
Travel Time (s)		10.0			12.2			15.9			11.0	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	7%	0%	0%	2%	0%
Adj. Flow (vph)	1	0	5	0	0	0	6	592	0	0	1494	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	5	0	0	0	0	6	592	0	0	1494	8
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
Sign Control		Stop			Stop			Free			Free	

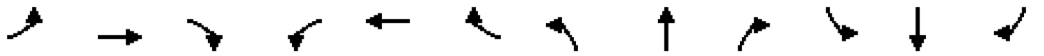
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 84.7%		ICU Level of Service E	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	5	0	0	0	6	562	0	0	1419	8
Future Volume (Veh/h)	1	0	5	0	0	0	6	562	0	0	1419	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1	0	5	0	0	0	6	592	0	0	1494	8
Pedestrians		1										
Lane Width (m)		3.6										
Walking Speed (m/s)		1.2										
Percent Blockage		0										
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	2099	2099	1495	2103	2107	592	1503			592		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2099	2099	1495	2103	2107	592	1503			592		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	97	100	100	100	99			100		
cM capacity (veh/h)	38	52	153	37	51	510	451			994		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	1	5	0	6	592	0	0	1494	8
Volume Left	1	0	0	6	0	0	0	0	0
Volume Right	0	5	0	0	0	0	0	0	8
cSH	38	153	1700	451	1700	1700	1700	1700	1700
Volume to Capacity	0.03	0.03	0.00	0.01	0.35	0.00	0.00	0.88	0.00
Queue Length 95th (m)	0.6	0.8	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	102.3	29.4	0.0	13.1	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	D	A	B					
Approach Delay (s/veh)	41.6		0.0	0.1			0.0		
Approach LOS	E		A						

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	84.7%	ICU Level of Service		E
Analysis Period (min)	15			

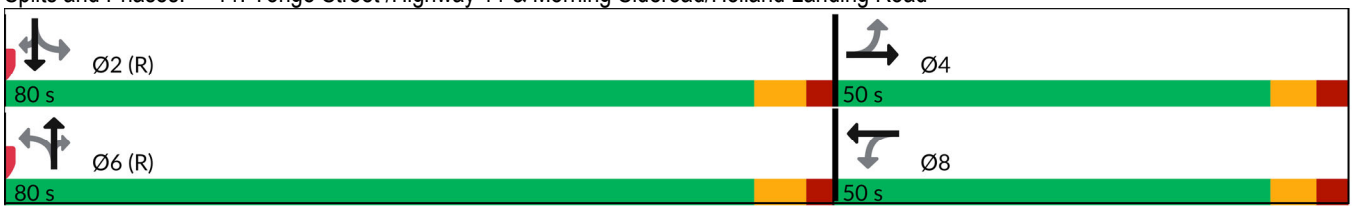


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	10	6	355	33	4	6	543	151	8	1587	5
Future Volume (vph)	3	10	6	355	33	4	6	543	151	8	1587	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		0.0	85.0		60.0	120.0		80.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	7.5			7.5			65.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor		1.00			1.00							
Frt		0.959			0.999				0.850			0.850
Flt Protected		0.993			0.957		0.950			0.950		
Satd. Flow (prot)	0	1809	0	0	1760	0	1805	3374	1509	1444	3539	1615
Flt Permitted		0.947			0.731		0.055			0.410		
Satd. Flow (perm)	0	1725	0	0	1344	0	104	3374	1509	623	3539	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6							161			38
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		166.2			122.5			217.1			193.9	
Travel Time (s)		12.0			8.8			15.6			14.0	
Confl. Peds. (#/hr)	1					1						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	3%	3%	25%	0%	7%	7%	25%	2%	0%
Adj. Flow (vph)	3	11	6	378	35	4	6	578	161	9	1688	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	417	0	6	578	161	9	1688	5
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			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	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
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	0.6		2.0	0.6	2.0	2.0	0.6	2.0
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	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6		6	2		2
Detector Phase	4	4		8	8		6	6	6	2	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	38.5	38.5		38.5	38.5		32.5	32.5	32.5	32.5	32.5	32.5
Total Split (s)	50.0	50.0		50.0	50.0		80.0	80.0	80.0	80.0	80.0	80.0
Total Split (%)	38.5%	38.5%		38.5%	38.5%		61.5%	61.5%	61.5%	61.5%	61.5%	61.5%
Maximum Green (s)	42.5	42.5		42.5	42.5		72.5	72.5	72.5	72.5	72.5	72.5
Yellow Time (s)	4.5	4.5		4.5	4.5		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.0	3.0		3.0	3.0		2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.5			7.5		7.5	7.5	7.5	7.5	7.5	7.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0	6.0	6.0	6.0	6.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)	24.0	24.0		24.0	24.0		18.0	18.0	18.0	18.0	18.0	18.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)		41.7			41.7		73.3	73.3	73.3	73.3	73.3	73.3
Actuated g/C Ratio		0.32			0.32		0.56	0.56	0.56	0.56	0.56	0.56
v/c Ratio		0.04			0.97		0.10	0.30	0.17	0.03	0.85	0.01
Control Delay (s/veh)		23.6			80.1		18.8	15.6	2.4	13.4	29.0	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		23.6			80.1		18.8	15.6	2.4	13.4	29.0	0.0
LOS		C			F		B	B	A	B	C	A
Approach Delay (s/veh)		23.6			80.1			12.8			28.8	
Approach LOS		C			F			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay (s/veh): 32.0		Intersection LOS: C	
Intersection Capacity Utilization 84.7%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 11: Yonge Street /Highway 11 & Morning Sideroad/Holland Landing Road



Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	20	417	6	578	161	9	1688	5
v/c Ratio	0.04	0.97	0.10	0.30	0.17	0.03	0.85	0.01
Control Delay (s/veh)	23.6	80.1	18.8	15.6	2.4	13.4	29.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	23.6	80.1	18.8	15.6	2.4	13.4	29.0	0.0
Queue Length 50th (m)	2.6	109.5	0.7	42.0	0.0	1.1	194.5	0.0
Queue Length 95th (m)	8.8	#176.6	3.6	53.8	10.1	3.9	231.0	0.0
Internal Link Dist (m)	142.2	98.5		193.1			169.9	
Turn Bay Length (m)			85.0		60.0	120.0		80.0
Base Capacity (vph)	567	439	59	1903	921	351	1996	927
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	0.95	0.10	0.30	0.17	0.03	0.85	0.01

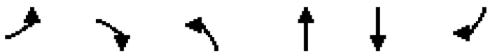
Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	10	6	355	33	4	6	543	151	8	1587	5
Future Volume (vph)	3	10	6	355	33	4	6	543	151	8	1587	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.5			7.5		7.5	7.5	7.5	7.5	7.5	7.5
Lane Util. Factor		1.00			1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.96			1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.96		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1809			1759		1805	3374	1509	1444	3539	1615
Flt Permitted		0.95			0.73		0.05	1.00	1.00	0.41	1.00	1.00
Satd. Flow (perm)		1726			1345		104	3374	1509	624	3539	1615
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	3	11	6	378	35	4	6	578	161	9	1688	5
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	70	0	0	2
Lane Group Flow (vph)	0	16	0	0	417	0	6	578	91	9	1688	3
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	0%	0%	0%	3%	3%	25%	0%	7%	7%	25%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6		6	2		2
Actuated Green, G (s)		41.7			41.7		73.3	73.3	73.3	73.3	73.3	73.3
Effective Green, g (s)		41.7			41.7		73.3	73.3	73.3	73.3	73.3	73.3
Actuated g/C Ratio		0.32			0.32		0.56	0.56	0.56	0.56	0.56	0.56
Clearance Time (s)		7.5			7.5		7.5	7.5	7.5	7.5	7.5	7.5
Vehicle Extension (s)		3.0			3.0		6.0	6.0	6.0	6.0	6.0	6.0
Lane Grp Cap (vph)		553			431		58	1902	850	351	1995	910
v/s Ratio Prot								0.17			c0.48	
v/s Ratio Perm		0.01			c0.31		0.06		0.06	0.01		0.00
v/c Ratio		0.03			0.97		0.10	0.30	0.11	0.03	0.85	0.00
Uniform Delay, d1		30.3			43.5		13.1	14.9	13.2	12.5	23.6	12.4
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.0			34.6		3.5	0.4	0.3	0.1	4.6	0.0
Delay (s)		30.3			78.1		16.7	15.3	13.4	12.7	28.3	12.4
Level of Service		C			E		B	B	B	B	C	B
Approach Delay (s/veh)		30.3			78.1			14.9			28.2	
Approach LOS		C			E			B			C	

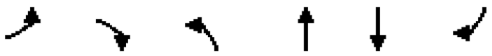
Intersection Summary			
HCM 2000 Control Delay (s/veh)	32.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	152	76	187	340	9
Future Volume (vph)	10	152	76	187	340	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0	35.0			0.0
Storage Lanes	1	0	1			0
Taper Length (m)	7.5		65.0			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt	0.873				0.996	
Flt Protected	0.997		0.950			
Satd. Flow (prot)	1538	0	1570	3471	3494	0
Flt Permitted	0.997		0.950			
Satd. Flow (perm)	1538	0	1570	3471	3494	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	381.8			452.7	370.1	
Travel Time (s)	27.5			32.6	26.6	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	8%	15%	4%	3%	0%
Adj. Flow (vph)	12	179	89	220	400	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	191	0	89	220	411	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	

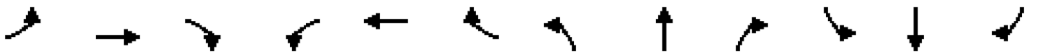
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 33.8%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	152	76	187	340	9
Future Volume (Veh/h)	10	152	76	187	340	9
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	12	179	89	220	400	11
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	694	206	411			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	694	206	411			
tC, single (s)	6.8	7.1	4.4			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.4			
p0 queue free %	97	77	92			
cM capacity (veh/h)	349	783	1057			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	191	89	110	110	267	144
Volume Left	12	89	0	0	0	0
Volume Right	179	0	0	0	0	11
cSH	726	1057	1700	1700	1700	1700
Volume to Capacity	0.26	0.08	0.06	0.06	0.16	0.08
Queue Length 95th (m)	8.4	2.2	0.0	0.0	0.0	0.0
Control Delay (s/veh)	11.7	8.7	0.0	0.0	0.0	0.0
Lane LOS	B	A				
Approach Delay (s/veh)	11.7	2.5			0.0	
Approach LOS	B					

Intersection Summary				
Average Delay	3.3			
Intersection Capacity Utilization	33.8%	ICU Level of Service		A
Analysis Period (min)	15			

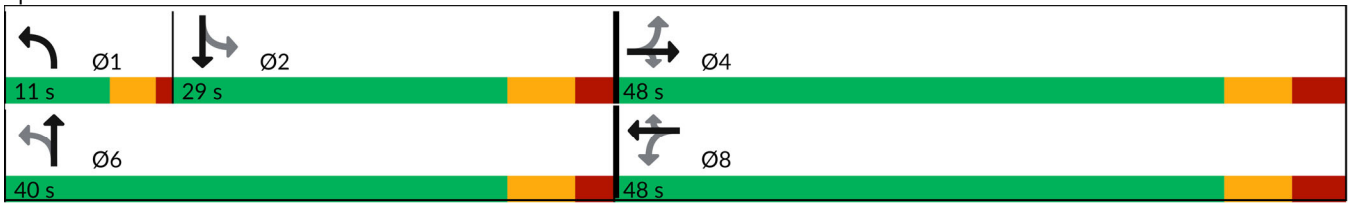


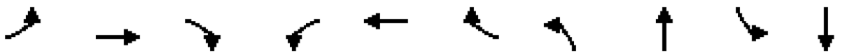
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	274	260	113	159	41	101	183	82	58	374	55
Future Volume (vph)	45	274	260	113	159	41	101	183	82	58	374	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	100.0		25.0	90.0		20.0	0.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	50.0			60.0			7.5			80.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.954			0.981	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1845	1538	1736	1792	1272	1703	3324	0	1656	3413	0
Flt Permitted	0.641			0.521			0.361			0.564		
Satd. Flow (perm)	1171	1845	1538	952	1792	1272	647	3324	0	983	3413	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			293			99		93			18	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		436.4			393.7			201.4			452.7	
Travel Time (s)		31.4			28.3			14.5			32.6	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	4%	3%	5%	4%	6%	27%	6%	3%	5%	9%	3%	9%
Adj. Flow (vph)	52	319	302	131	185	48	117	213	95	67	435	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	319	302	131	185	48	117	308	0	67	499	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	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	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases		4			8		1	6			2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	6			2		
Detector Phase	4	4	4	8	8	8	1	6		2	2	
Switch Phase												
Minimum Initial (s)	30.0	30.0	30.0	30.0	30.0	30.0	7.0	22.0		22.0	22.0	
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	11.0	29.0		29.0	29.0	
Total Split (s)	48.0	48.0	48.0	48.0	48.0	48.0	11.0	40.0		29.0	29.0	
Total Split (%)	54.5%	54.5%	54.5%	54.5%	54.5%	54.5%	12.5%	45.5%		33.0%	33.0%	
Maximum Green (s)	40.0	40.0	40.0	40.0	40.0	40.0	7.0	33.0		22.0	22.0	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	3.0	4.5		4.5	4.5	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	1.0	2.5		2.5	2.5	
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)	8.0	8.0	8.0	8.0	8.0	8.0	4.0	7.0		7.0	7.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	6.0	6.0	6.0	6.0	6.0	6.0	3.0	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None	None	None	Max		Max	Max	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0		7.0	7.0	
Flash Don't Walk (s)	21.0	21.0	21.0	21.0	21.0	21.0		15.0		15.0	15.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0		0	0	
Act Effct Green (s)	30.9	30.9	30.9	30.9	30.9	30.9	36.0	33.0		24.2	24.2	
Actuated g/C Ratio	0.39	0.39	0.39	0.39	0.39	0.39	0.46	0.42		0.31	0.31	
v/c Ratio	0.11	0.44	0.39	0.35	0.26	0.09	0.30	0.21		0.22	0.47	
Control Delay (s/veh)	16.0	20.0	3.9	20.2	17.5	0.8	15.1	10.7		25.1	24.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	16.0	20.0	3.9	20.2	17.5	0.8	15.1	10.7		25.1	24.2	
LOS	B	B	A	C	B	A	B	B		C	C	
Approach Delay (s/veh)		12.5			16.2			11.9			24.3	
Approach LOS		B			B			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 88			
Actuated Cycle Length: 78.9			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay (s/veh): 16.3		Intersection LOS: B	
Intersection Capacity Utilization 111.7%		ICU Level of Service H	
Analysis Period (min) 15			

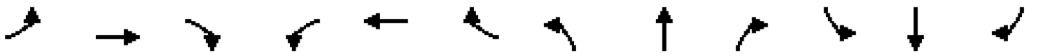
Splits and Phases: 13: 2nd Concession Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	52	319	302	131	185	48	117	308	67	499
v/c Ratio	0.11	0.44	0.39	0.35	0.26	0.09	0.30	0.21	0.22	0.47
Control Delay (s/veh)	16.0	20.0	3.9	20.2	17.5	0.8	15.1	10.7	25.1	24.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.0	20.0	3.9	20.2	17.5	0.8	15.1	10.7	25.1	24.2
Queue Length 50th (m)	5.1	36.0	0.8	14.2	19.3	0.0	10.1	10.5	8.0	32.8
Queue Length 95th (m)	11.6	54.1	13.2	26.6	31.8	0.7	20.6	19.0	18.8	48.4
Internal Link Dist (m)		412.4			369.7			177.4		428.7
Turn Bay Length (m)	100.0		25.0	90.0		20.0			60.0	
Base Capacity (vph)	593	936	924	483	908	693	389	1444	302	1060
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.34	0.33	0.27	0.20	0.07	0.30	0.21	0.22	0.47

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	274	260	113	159	41	101	183	82	58	374	55
Future Volume (vph)	45	274	260	113	159	41	101	183	82	58	374	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0	8.0	8.0	8.0	8.0	4.0	7.0		7.0	7.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1845	1538	1736	1792	1272	1703	3323		1656	3412	
Flt Permitted	0.64	1.00	1.00	0.52	1.00	1.00	0.36	1.00		0.56	1.00	
Satd. Flow (perm)	1171	1845	1538	952	1792	1272	648	3323		984	3412	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	52	319	302	131	185	48	117	213	95	67	435	64
RTOR Reduction (vph)	0	0	179	0	0	29	0	54	0	0	13	0
Lane Group Flow (vph)	52	319	123	131	185	19	117	254	0	67	486	0
Heavy Vehicles (%)	4%	3%	5%	4%	6%	27%	6%	3%	5%	9%	3%	9%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases		4			8		1	6			2	
Permitted Phases	4		4	8		8	6			2		
Actuated Green, G (s)	30.9	30.9	30.9	30.9	30.9	30.9	33.8	33.8		24.2	24.2	
Effective Green, g (s)	30.9	30.9	30.9	30.9	30.9	30.9	33.8	33.8		24.2	24.2	
Actuated g/C Ratio	0.39	0.39	0.39	0.39	0.39	0.39	0.42	0.42		0.30	0.30	
Clearance Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	4.0	7.0		7.0	7.0	
Vehicle Extension (s)	6.0	6.0	6.0	6.0	6.0	6.0	3.0	0.2		0.2	0.2	
Lane Grp Cap (vph)	454	715	596	369	694	493	348	1409		298	1036	
v/s Ratio Prot		c0.17			0.10		c0.02	0.08			c0.14	
v/s Ratio Perm	0.04		0.08	0.14		0.01	0.12			0.07		
v/c Ratio	0.11	0.45	0.21	0.36	0.27	0.04	0.34	0.18		0.22	0.47	
Uniform Delay, d1	15.6	18.1	16.2	17.3	16.7	15.2	14.5	14.3		20.7	22.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	1.3	0.5	1.7	0.6	0.1	0.6	0.3		1.7	1.5	
Delay (s)	16.0	19.3	16.7	19.0	17.2	15.3	15.1	14.6		22.5	24.1	
Level of Service	B	B	B	B	B	B	B	B		C	C	
Approach Delay (s/veh)		17.9			17.6			14.7			23.9	
Approach LOS		B			B			B			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	18.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	79.7	Sum of lost time (s)	19.0
Intersection Capacity Utilization	111.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

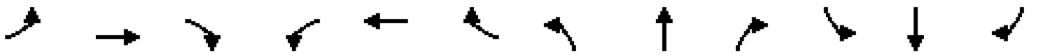
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	362	61	61	271	48	55
Future Volume (vph)	362	61	61	271	48	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		45.0	45.0		0.0	0.0
Storage Lanes		1	1		1	1
Taper Length (m)			25.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1810	1568	1570	1776	1770	1553
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1810	1568	1570	1776	1770	1553
Link Speed (k/h)	50			50	50	
Link Distance (m)	447.7			351.6	104.8	
Travel Time (s)	32.2			25.3	7.5	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	5%	3%	15%	7%	2%	4%
Adj. Flow (vph)	381	64	64	285	51	58
Shared Lane Traffic (%)						
Lane Group Flow (vph)	381	64	64	285	51	58
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				Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 35.8%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	362	61	61	271	48	55
Future Volume (Veh/h)	362	61	61	271	48	55
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	381	64	64	285	51	58
Pedestrians					2	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			447		796	383
vC1, stage 1 conf vol					383	
vC2, stage 2 conf vol					413	
vCu, unblocked vol			447		796	383
tC, single (s)			4.2		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.3		3.5	3.3
p0 queue free %			94		90	91
cM capacity (veh/h)			1046		534	659

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	381	64	64	285	51	58
Volume Left	0	0	64	0	51	0
Volume Right	0	64	0	0	0	58
cSH	1700	1700	1046	1700	534	659
Volume to Capacity	0.22	0.04	0.06	0.17	0.10	0.09
Queue Length 95th (m)	0.0	0.0	1.6	0.0	2.5	2.3
Control Delay (s/veh)	0.0	0.0	8.7	0.0	12.5	11.0
Lane LOS			A		B	B
Approach Delay (s/veh)	0.0		1.6		11.7	
Approach LOS					B	

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	35.8%	ICU Level of Service	A
Analysis Period (min)	15		

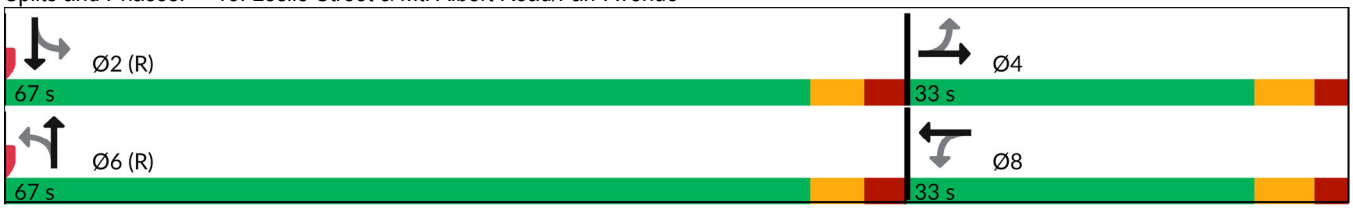


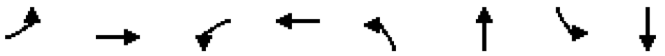
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	39	342	23	44	18	171	149	8	17	291	119
Future Volume (vph)	68	39	342	23	44	18	171	149	8	17	291	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	15.0		0.0	30.0		0.0	20.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	80.0			15.0			40.0			65.0		
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
Frt		0.865			0.955			0.993			0.956	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1719	1565	0	1805	1814	0	1570	1801	0	1703	1725	0
Flt Permitted	0.715			0.303			0.506			0.654		
Satd. Flow (perm)	1294	1565	0	576	1814	0	836	1801	0	1172	1725	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		353			19			5			37	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		375.8			121.0			404.2			164.8	
Travel Time (s)		27.1			8.7			29.1			11.9	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	15%	5%	0%	6%	5%	6%
Adj. Flow (vph)	70	40	353	24	45	19	176	154	8	18	300	123
Shared Lane Traffic (%)												
Lane Group Flow (vph)	70	393	0	24	64	0	176	162	0	18	423	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	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			6			2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		40.0	40.0		40.0	40.0	
Minimum Split (s)	28.0	28.0		28.0	28.0		47.0	47.0		47.0	47.0	
Total Split (s)	33.0	33.0		33.0	33.0		67.0	67.0		67.0	67.0	
Total Split (%)	33.0%	33.0%		33.0%	33.0%		67.0%	67.0%		67.0%	67.0%	
Maximum Green (s)	26.0	26.0		26.0	26.0		60.0	60.0		60.0	60.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		0.2	0.2		0.2	0.2	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	14.0	14.0		14.0	14.0		16.0	16.0		16.0	16.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	13.2	13.2		13.2	13.2		72.8	72.8		72.8	72.8	
Actuated g/C Ratio	0.13	0.13		0.13	0.13		0.73	0.73		0.73	0.73	
v/c Ratio	0.41	0.77		0.32	0.25		0.29	0.12		0.02	0.33	
Control Delay (s/veh)	45.6	16.9		48.4	30.0		6.3	4.5		5.1	5.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	45.6	16.9		48.4	30.0		6.3	4.5		5.1	5.9	
LOS	D	B		D	C		A	A		A	A	
Approach Delay (s/veh)		21.3			35.0			5.4			5.8	
Approach LOS		C			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay (s/veh): 13.0		Intersection LOS: B	
Intersection Capacity Utilization 107.3%		ICU Level of Service G	
Analysis Period (min) 15			

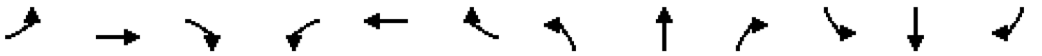
Splits and Phases: 15: Leslie Street & Mt. Albert Road/Farr Avenue





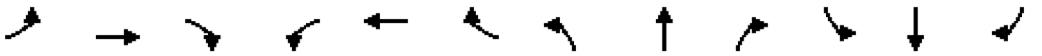
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	70	393	24	64	176	162	18	423
v/c Ratio	0.41	0.77	0.32	0.25	0.29	0.12	0.02	0.33
Control Delay (s/veh)	45.6	16.9	48.4	30.0	6.3	4.5	5.1	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	45.6	16.9	48.4	30.0	6.3	4.5	5.1	5.9
Queue Length 50th (m)	13.7	7.6	4.7	8.6	9.0	7.0	0.8	20.7
Queue Length 95th (m)	24.8	35.9	11.8	18.8	22.4	16.7	3.8	51.0
Internal Link Dist (m)		351.8		97.0		380.2		140.8
Turn Bay Length (m)	40.0		15.0		30.0		20.0	
Base Capacity (vph)	336	668	149	485	608	1311	852	1265
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	0.21	0.59	0.16	0.13	0.29	0.12	0.02	0.33

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	39	342	23	44	18	171	149	8	17	291	119
Future Volume (vph)	68	39	342	23	44	18	171	149	8	17	291	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.87		1.00	0.96		1.00	0.99		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	1566		1805	1815		1570	1800		1703	1726	
Flt Permitted	0.72	1.00		0.30	1.00		0.51	1.00		0.65	1.00	
Satd. Flow (perm)	1294	1566		576	1815		836	1800		1173	1726	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	70	40	353	24	45	19	176	154	8	18	300	123
RTOR Reduction (vph)	0	306	0	0	16	0	0	1	0	0	10	0
Lane Group Flow (vph)	70	87	0	24	48	0	176	161	0	18	413	0
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	15%	5%	0%	6%	5%	6%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		
Actuated Green, G (s)	13.2	13.2		13.2	13.2		72.8	72.8		72.8	72.8	
Effective Green, g (s)	13.2	13.2		13.2	13.2		72.8	72.8		72.8	72.8	
Actuated g/C Ratio	0.13	0.13		0.13	0.13		0.73	0.73		0.73	0.73	
Clearance Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)	170	206		76	239		608	1310		853	1256	
v/s Ratio Prot		c0.06			0.03			0.09			c0.24	
v/s Ratio Perm	0.05			0.04			0.21			0.02		
v/c Ratio	0.41	0.42		0.32	0.20		0.29	0.12		0.02	0.33	
Uniform Delay, d1	39.8	39.9		39.3	38.7		4.7	4.1		3.8	4.9	
Progression Factor	1.00	1.00		1.00	1.00		0.88	0.91		1.00	1.00	
Incremental Delay, d2	1.6	1.4		2.4	0.4		1.2	0.2		0.0	0.7	
Delay (s)	41.5	41.3		41.7	39.1		5.3	3.9		3.8	5.6	
Level of Service	D	D		D	D		A	A		A	A	
Approach Delay (s/veh)		41.3			39.8			4.6			5.5	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	20.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	107.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

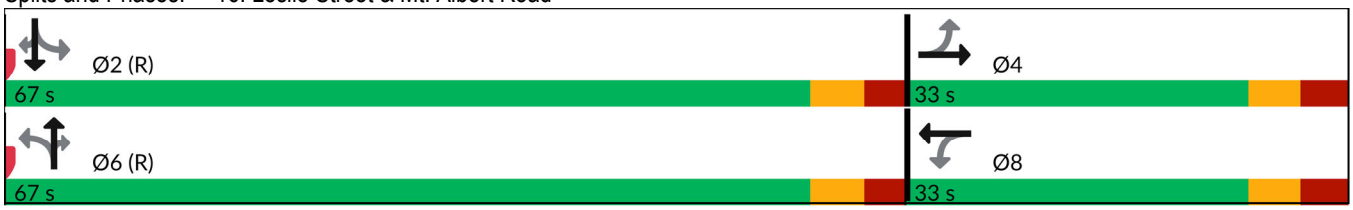


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	0	4	97	11	105	15	262	57	133	599	14
Future Volume (vph)	3	0	4	97	11	105	15	262	57	133	599	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	30.0		0.0	40.0		10.0	25.0		25.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			35.0			35.0			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				0.98		1.00		0.98	1.00		0.97
Frt		0.850			0.864				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1615	0	1719	1394	0	1805	1792	1553	1641	1827	1615
Flt Permitted	0.674			0.755			0.353			0.580		
Satd. Flow (perm)	1278	1615	0	1366	1394	0	670	1792	1519	1001	1827	1574
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		250			118				49			49
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		49.0			177.3			310.8			404.2	
Travel Time (s)		3.5			12.8			22.4			29.1	
Confl. Peds. (#/hr)	1					1	3		1	1		3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	5%	0%	17%	0%	6%	4%	10%	4%	0%
Adj. Flow (vph)	3	0	4	109	12	118	17	294	64	149	673	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	3	4	0	109	130	0	17	294	64	149	673	16
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	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
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	0.6		2.0	0.6	2.0	2.0	0.6	2.0
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	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6		6	2		2
Detector Phase	4	4		8	8		6	6	6	2	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		45.0	45.0	45.0	45.0	45.0	45.0
Minimum Split (s)	31.5	31.5		31.5	31.5		52.0	52.0	52.0	52.0	52.0	52.0
Total Split (s)	33.0	33.0		33.0	33.0		67.0	67.0	67.0	67.0	67.0	67.0
Total Split (%)	33.0%	33.0%		33.0%	33.0%		67.0%	67.0%	67.0%	67.0%	67.0%	67.0%
Maximum Green (s)	25.5	25.5		25.5	25.5		60.0	60.0	60.0	60.0	60.0	60.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.5	3.5		3.5	3.5		3.0	3.0	3.0	3.0	3.0	3.0
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)	7.5	7.5		7.5	7.5		7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		0.2	0.2	0.2	0.2	0.2	0.2
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)	17.0	17.0		17.0	17.0		19.0	19.0	19.0	19.0	19.0	19.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)	13.8	13.8		13.8	13.8		71.7	71.7	71.7	71.7	71.7	71.7
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.72	0.72	0.72	0.72	0.72	0.72
v/c Ratio	0.02	0.01		0.58	0.44		0.04	0.23	0.06	0.21	0.51	0.01
Control Delay (s/veh)	34.7	0.0		52.1	13.7		5.3	5.8	2.3	5.7	8.1	0.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.7	0.0		52.1	13.7		5.3	5.8	2.3	5.7	8.1	0.2
LOS	C	A		D	B		A	A	A	A	A	A
Approach Delay (s/veh)		14.9			31.2			5.2			7.5	
Approach LOS		B			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 13 (13%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay (s/veh): 10.8		Intersection LOS: B	
Intersection Capacity Utilization 105.2%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 16: Leslie Street & Mt. Albert Road



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	3	4	109	130	17	294	64	149	673	16
v/c Ratio	0.02	0.01	0.58	0.44	0.04	0.23	0.06	0.21	0.51	0.01
Control Delay (s/veh)	34.7	0.0	52.1	13.7	5.3	5.8	2.3	5.7	8.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.7	0.0	52.1	13.7	5.3	5.8	2.3	5.7	8.1	0.2
Queue Length 50th (m)	0.6	0.0	21.3	2.2	0.9	17.0	0.8	8.6	49.2	0.0
Queue Length 95th (m)	3.1	0.0	36.5	17.5	3.5	32.8	5.0	20.9	86.5	m0.3
Internal Link Dist (m)		25.0		153.3		286.8			380.2	
Turn Bay Length (m)			30.0		40.0		10.0	25.0		25.0
Base Capacity (vph)	325	598	348	443	480	1284	1103	717	1310	1142
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	0.01	0.01	0.31	0.29	0.04	0.23	0.06	0.21	0.51	0.01

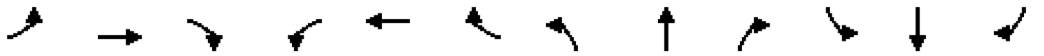
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	0	4	97	11	105	15	262	57	133	599	14
Future Volume (vph)	3	0	4	97	11	105	15	262	57	133	599	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5		7.5	7.5		7.0	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	0.98		1.00	1.00	0.98	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85		1.00	0.86		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1802	1615		1719	1393		1802	1792	1519	1639	1827	1574
Flt Permitted	0.67	1.00		0.76	1.00		0.35	1.00	1.00	0.58	1.00	1.00
Satd. Flow (perm)	1278	1615		1366	1393		669	1792	1519	1001	1827	1574
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	3	0	4	109	12	118	17	294	64	149	673	16
RTOR Reduction (vph)	0	3	0	0	102	0	0	0	14	0	0	5
Lane Group Flow (vph)	3	1	0	109	28	0	17	294	50	149	673	11
Confl. Peds. (#/hr)	1					1	3		1	1		3
Heavy Vehicles (%)	0%	0%	0%	5%	0%	17%	0%	6%	4%	10%	4%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6		6	2		2
Actuated Green, G (s)	13.8	13.8		13.8	13.8		71.7	71.7	71.7	71.7	71.7	71.7
Effective Green, g (s)	13.8	13.8		13.8	13.8		71.7	71.7	71.7	71.7	71.7	71.7
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.72	0.72	0.72	0.72	0.72	0.72
Clearance Time (s)	7.5	7.5		7.5	7.5		7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)	176	222		188	192		479	1284	1089	717	1309	1128
v/s Ratio Prot		0.00			0.02			0.16			c0.37	
v/s Ratio Perm	0.00			c0.08			0.03		0.03	0.15		0.01
v/c Ratio	0.02	0.00		0.58	0.15		0.04	0.23	0.05	0.21	0.51	0.01
Uniform Delay, d1	37.2	37.2		40.4	37.9		4.1	4.8	4.1	4.7	6.3	4.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	0.93	0.93	1.00
Incremental Delay, d2	0.0	0.0		4.3	0.4		0.1	0.4	0.1	0.6	1.4	0.0
Delay (s)	37.3	37.2		44.7	38.3		4.2	5.2	4.2	5.0	7.3	4.0
Level of Service	D	D		D	D		A	A	A	A	A	A
Approach Delay (s/veh)		37.2			41.2			5.0			6.8	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	105.2%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

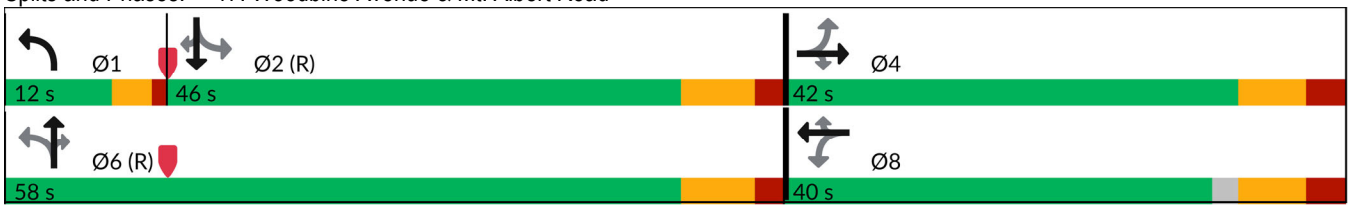


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	83	78	211	119	16	18	65	79	22	181	16
Future Volume (vph)	12	83	78	211	119	16	18	65	79	22	181	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	90.0		45.0	110.0		50.0	35.0		30.0	50.0		50.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	100.0			100.0			65.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1671	1792	1509	1671	1696	1346	1805	3112	1302	1641	3374	1214
Flt Permitted	0.674			0.699			0.585			0.708		
Satd. Flow (perm)	1186	1792	1509	1230	1696	1346	1112	3112	1302	1223	3374	1214
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			93			86			98
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		318.0			360.7			300.1			406.7	
Travel Time (s)		22.9			26.0			21.6			29.3	
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%	6%	7%	8%	12%	20%	0%	16%	24%	10%	7%	33%
Adj. Flow (vph)	13	90	85	229	129	17	20	71	86	24	197	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	90	85	229	129	17	20	71	86	24	197	17
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	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	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	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	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	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	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	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	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	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		1	6			2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	6		6	2		2
Detector Phase	4	4	4	8	8	8	1	6	6	2	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	15.0	15.0	15.0	15.0	15.0
Minimum Split (s)	22.5	22.5	22.5	40.0	40.0	40.0	11.5	38.5	38.5	38.5	38.5	38.5
Total Split (s)	42.0	42.0	42.0	40.0	40.0	40.0	12.0	58.0	58.0	46.0	46.0	46.0
Total Split (%)	42.0%	42.0%	42.0%	40.0%	40.0%	40.0%	12.0%	58.0%	58.0%	46.0%	46.0%	46.0%
Maximum Green (s)	34.0	34.0	34.0	32.0	32.0	32.0	8.0	50.5	50.5	38.5	38.5	38.5
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	3.0	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	1.0	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	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	4.0	7.5	7.5	7.5	7.5	7.5
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	6.0	6.0	6.0	6.0	6.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	0.0	0.0	0.0	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)	0.0	0.0	0.0	25.0	25.0	25.0		24.0	24.0	24.0	24.0	24.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0	0	0	0	0
Act Effct Green (s)	23.8	23.8	23.8	23.8	23.8	23.8	64.2	60.7	60.7	56.3	56.3	56.3
Actuated g/C Ratio	0.24	0.24	0.24	0.24	0.24	0.24	0.64	0.61	0.61	0.56	0.56	0.56
v/c Ratio	0.05	0.21	0.20	0.78	0.32	0.04	0.03	0.04	0.10	0.03	0.10	0.02
Control Delay (s/veh)	25.9	29.5	5.9	53.4	31.8	0.2	8.7	9.8	2.9	14.9	13.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.9	29.5	5.9	53.4	31.8	0.2	8.7	9.8	2.9	14.9	13.0	0.1
LOS	C	C	A	D	C	A	A	A	A	B	B	A
Approach Delay (s/veh)		18.6			43.5			6.3			12.3	
Approach LOS		B			D			A			B	

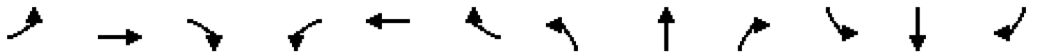
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay (s/veh): 24.4		Intersection LOS: C	
Intersection Capacity Utilization 52.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 17: Woodbine Avenue & Mt. Albert Road



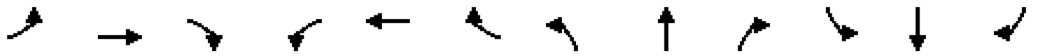
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	13	90	85	229	129	17	20	71	86	24	197	17
v/c Ratio	0.05	0.21	0.20	0.78	0.32	0.04	0.03	0.04	0.10	0.03	0.10	0.02
Control Delay (s/veh)	25.9	29.5	5.9	53.4	31.8	0.2	8.7	9.8	2.9	14.9	13.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.9	29.5	5.9	53.4	31.8	0.2	8.7	9.8	2.9	14.9	13.0	0.1
Queue Length 50th (m)	2.1	14.8	0.0	43.7	21.7	0.0	1.4	2.8	0.0	1.8	8.2	0.0
Queue Length 95th (m)	6.2	25.0	9.3	64.1	33.9	0.0	5.1	7.1	7.3	8.1	20.6	0.0
Internal Link Dist (m)		294.0			336.7			276.1			382.7	
Turn Bay Length (m)	90.0		45.0	110.0		50.0	35.0		30.0	50.0		50.0
Base Capacity (vph)	403	609	574	418	576	519	769	1889	824	688	1900	726
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.15	0.15	0.55	0.22	0.03	0.03	0.04	0.10	0.03	0.10	0.02

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	83	78	211	119	16	18	65	79	22	181	16
Future Volume (vph)	12	83	78	211	119	16	18	65	79	22	181	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0	8.0	8.0	8.0	8.0	4.0	7.5	7.5	7.5	7.5	7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1671	1792	1509	1671	1696	1346	1805	3112	1302	1641	3374	1214
Flt Permitted	0.67	1.00	1.00	0.70	1.00	1.00	0.58	1.00	1.00	0.71	1.00	1.00
Satd. Flow (perm)	1186	1792	1509	1229	1696	1346	1111	3112	1302	1224	3374	1214
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	90	85	229	129	17	20	71	86	24	197	17
RTOR Reduction (vph)	0	0	65	0	0	13	0	0	34	0	0	8
Lane Group Flow (vph)	13	90	20	229	129	4	20	71	52	24	197	9
Heavy Vehicles (%)	8%	6%	7%	8%	12%	20%	0%	16%	24%	10%	7%	33%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		1	6			2	
Permitted Phases	4		4	8		8	6		6	2		2
Actuated Green, G (s)	23.8	23.8	23.8	23.8	23.8	23.8	60.7	60.7	60.7	53.9	53.9	53.9
Effective Green, g (s)	23.8	23.8	23.8	23.8	23.8	23.8	60.7	60.7	60.7	53.9	53.9	53.9
Actuated g/C Ratio	0.24	0.24	0.24	0.24	0.24	0.24	0.61	0.61	0.61	0.54	0.54	0.54
Clearance Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	4.0	7.5	7.5	7.5	7.5	7.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	6.0	6.0	6.0	6.0	6.0
Lane Grp Cap (vph)	282	426	359	292	403	320	693	1888	790	659	1818	654
v/s Ratio Prot		0.05			0.08		0.00	0.02			c0.06	
v/s Ratio Perm	0.01		0.01	c0.19		0.00	0.02		c0.04	0.02		0.01
v/c Ratio	0.05	0.21	0.06	0.78	0.32	0.01	0.03	0.04	0.07	0.04	0.11	0.01
Uniform Delay, d1	29.4	30.6	29.4	35.7	31.4	29.1	7.9	7.9	8.0	10.8	11.3	10.7
Progression 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
Incremental Delay, d2	0.1	0.2	0.1	12.9	0.5	0.0	0.0	0.0	0.2	0.1	0.1	0.0
Delay (s)	29.4	30.8	29.5	48.6	31.9	29.1	7.9	7.9	8.2	10.9	11.4	10.7
Level of Service	C	C	C	D	C	C	A	A	A	B	B	B
Approach Delay (s/veh)		30.1			42.0			8.1			11.3	
Approach LOS		C			D			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	26.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

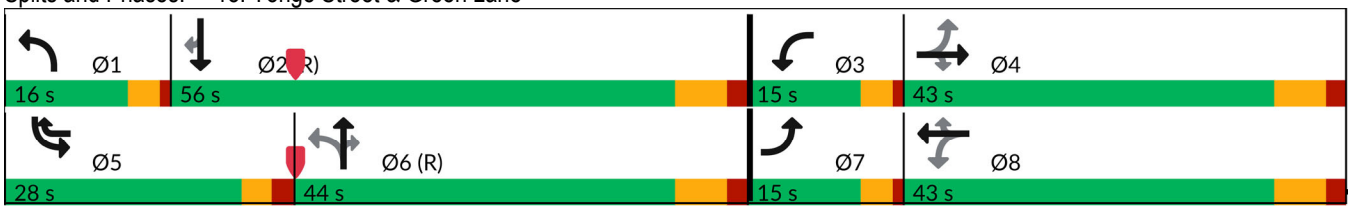


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	308	25	153	346	183	11	213	141	359	323	125
Future Volume (vph)	97	308	25	153	346	183	11	213	141	359	323	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		30.0	170.0		170.0	90.0		35.0	90.0		45.0
Storage Lanes	1		1	1		1	1		1	2		1
Taper Length (m)	45.0			40.0			40.0			100.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor	1.00		0.99	1.00		0.98	1.00		0.98	1.00		0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3574	1495	1787	3574	1538	1805	3574	1568	3467	3610	1615
Flt Permitted	0.346			0.371			0.522			0.950		
Satd. Flow (perm)	650	3574	1476	697	3574	1515	990	3574	1544	3454	3610	1590
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			143			220			170			151
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		1082.8			289.2			226.7			273.5	
Travel Time (s)		78.0			20.8			16.3			19.7	
Confl. Peds. (#/hr)	3		1	1		3	3		3	3		3
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	1%	1%	8%	1%	1%	5%	0%	1%	3%	1%	0%	0%
Adj. Flow (vph)	117	371	30	184	417	220	13	257	170	433	389	151
Shared Lane Traffic (%)												
Lane Group Flow (vph)	117	371	30	184	417	220	13	257	170	433	389	151
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			7.2			7.2	
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	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	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	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	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	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	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	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	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	pm+ov	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	1	6		5	2	
Permitted Phases	4		4	8		8	6		6			2
Detector Phase	7	4	4	3	8	5	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	7.0	10.0	10.0	7.0	20.0	20.0	10.0	20.0	20.0
Minimum Split (s)	11.5	42.0	42.0	11.5	42.0	15.0	11.5	43.0	43.0	15.0	43.0	43.0
Total Split (s)	15.0	43.0	43.0	15.0	43.0	28.0	16.0	44.0	44.0	28.0	56.0	56.0
Total Split (%)	11.5%	33.1%	33.1%	11.5%	33.1%	21.5%	12.3%	33.8%	33.8%	21.5%	43.1%	43.1%
Maximum Green (s)	11.0	36.0	36.0	11.0	36.0	23.0	12.0	37.0	37.0	23.0	49.0	49.0
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	1.0	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	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	7.0	7.0	4.0	7.0	5.0	4.0	7.0	7.0	5.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	3.0	3.0	0.2	0.2	3.0	0.2	0.2
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	7.0
Flash Don't Walk (s)		28.0	28.0		28.0			29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0			0	0		0	0
Act Effct Green (s)	35.4	22.2	22.2	36.9	22.9	46.4	62.4	52.4	52.4	21.5	74.5	74.5
Actuated g/C Ratio	0.27	0.17	0.17	0.28	0.18	0.36	0.48	0.40	0.40	0.17	0.57	0.57
v/c Ratio	0.44	0.61	0.08	0.64	0.66	0.32	0.03	0.18	0.23	0.76	0.19	0.15
Control Delay (s/veh)	37.6	53.8	0.4	45.1	55.0	3.8	12.6	27.2	5.3	60.4	15.1	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.6	53.8	0.4	45.1	55.0	3.8	12.6	27.2	5.3	60.4	15.1	3.2
LOS	D	D	A	D	E	A	B	C	A	E	B	A
Approach Delay (s/veh)		47.1			39.1			18.3			33.4	
Approach LOS		D			D			B			C	

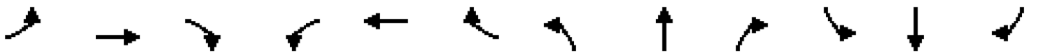
Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 80 (62%), Referenced to phase 2:SBT and 6:NBTL, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay (s/veh): 35.3		Intersection LOS: D	
Intersection Capacity Utilization 77.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 18: Yonge Street & Green Lane



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	117	371	30	184	417	220	13	257	170	433	389	151
v/c Ratio	0.44	0.61	0.08	0.64	0.66	0.32	0.03	0.18	0.23	0.76	0.19	0.15
Control Delay (s/veh)	37.6	53.8	0.4	45.1	55.0	3.8	12.6	27.2	5.3	60.4	15.1	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.6	53.8	0.4	45.1	55.0	3.8	12.6	27.2	5.3	60.4	15.1	3.2
Queue Length 50th (m)	23.3	49.2	0.0	38.1	56.1	0.0	1.2	23.2	0.0	58.1	23.1	0.0
Queue Length 95th (m)	33.7	57.3	0.0	50.4	64.2	10.0	4.0	35.2	12.5	66.2	38.6	8.9
Internal Link Dist (m)		1058.8			265.2			202.7			249.5	
Turn Bay Length (m)	30.0		30.0	170.0		170.0	90.0		35.0	90.0		45.0
Base Capacity (vph)	277	989	512	289	989	710	588	1441	724	637	2068	975
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.38	0.06	0.64	0.42	0.31	0.02	0.18	0.23	0.68	0.19	0.15

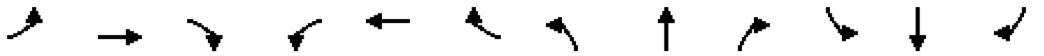
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	308	25	153	346	183	11	213	141	359	323	125
Future Volume (vph)	97	308	25	153	346	183	11	213	141	359	323	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.0	7.0	4.0	7.0	5.0	4.0	7.0	7.0	5.0	7.0	7.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	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	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1786	3574	1476	1787	3574	1526	1803	3574	1544	3467	3610	1590
Flt Permitted	0.35	1.00	1.00	0.37	1.00	1.00	0.52	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	651	3574	1476	698	3574	1526	991	3574	1544	3467	3610	1590
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	117	371	30	184	417	220	13	257	170	433	389	151
RTOR Reduction (vph)	0	0	25	0	0	145	0	0	102	0	0	67
Lane Group Flow (vph)	117	371	5	184	417	75	13	257	68	433	389	84
Confl. Peds. (#/hr)	3		1	1		3	3		3	3		3
Heavy Vehicles (%)	1%	1%	8%	1%	1%	5%	0%	1%	3%	1%	0%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+ov	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	1	6		5	2	
Permitted Phases	4		4	8		8	6		6			2
Actuated Green, G (s)	32.4	22.2	22.2	34.0	23.0	44.5	55.1	52.3	52.3	21.5	72.0	72.0
Effective Green, g (s)	32.4	22.2	22.2	34.0	23.0	44.5	55.1	52.3	52.3	21.5	72.0	72.0
Actuated g/C Ratio	0.25	0.17	0.17	0.26	0.18	0.34	0.42	0.40	0.40	0.17	0.55	0.55
Clearance Time (s)	4.0	7.0	7.0	4.0	7.0	5.0	4.0	7.0	7.0	5.0	7.0	7.0
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	3.0	3.0	0.2	0.2	3.0	0.2	0.2
Lane Grp Cap (vph)	251	610	252	274	632	522	437	1437	621	573	1999	880
v/s Ratio Prot	0.04	0.10		c0.06	0.12	0.02	0.00	0.07		c0.12	c0.11	
v/s Ratio Perm	0.08		0.00	c0.12		0.03	0.01		0.04			0.05
v/c Ratio	0.47	0.61	0.02	0.67	0.66	0.14	0.03	0.18	0.11	0.76	0.19	0.10
Uniform Delay, d1	39.4	49.9	44.9	39.8	49.9	29.6	21.7	25.0	24.3	51.7	14.5	13.7
Progression 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
Incremental Delay, d2	1.4	2.5	0.1	6.3	3.4	0.1	0.0	0.3	0.4	5.6	0.2	0.2
Delay (s)	40.8	52.4	44.9	46.1	53.2	29.7	21.8	25.3	24.7	57.4	14.7	13.9
Level of Service	D	D	D	D	D	C	C	C	C	E	B	B
Approach Delay (s/veh)		49.3			45.3			24.9			33.6	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	38.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

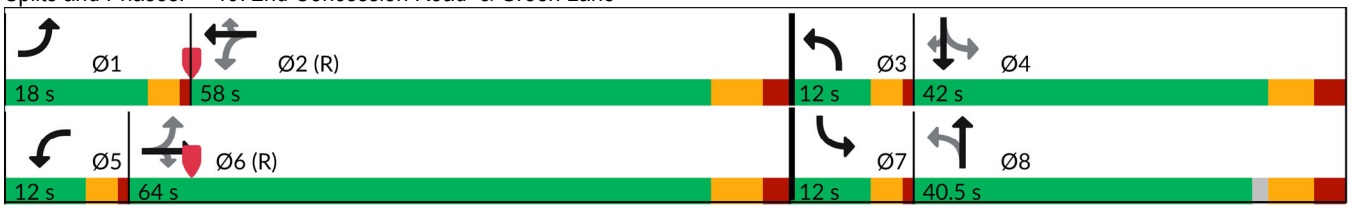


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	1417	203	114	828	52	117	92	158	222	256	220
Future Volume (vph)	98	1417	203	114	828	52	117	92	158	222	256	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	100.0		40.0	70.0		30.0	100.0		0.0	80.0		0.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			85.0			100.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt			0.850			0.850		0.905				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3471	1615	1671	4715	1468	1770	3186	0	1787	1881	1568
Flt Permitted	0.279			0.061			0.311			0.550		
Satd. Flow (perm)	495	3471	1615	107	4715	1468	579	3186	0	1035	1881	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			105			138		167				237
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		373.5			193.4			230.2			474.7	
Travel Time (s)		26.9			13.9			16.6			34.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	4%	0%	8%	10%	10%	2%	0%	4%	1%	1%	3%
Adj. Flow (vph)	105	1524	218	123	890	56	126	99	170	239	275	237
Shared Lane Traffic (%)												
Lane Group Flow (vph)	105	1524	218	123	890	56	126	269	0	239	275	237
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	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	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	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	2.0
Detector 1 Type	Cl+Ex	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	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	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	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	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6		6	2		2	8			4		4
Detector Phase	1	6	6	5	2	2	3	8		7	4	4
Switch Phase												
Minimum Initial (s)	7.0	33.0	33.0	7.0	33.0	33.0	7.0	10.0		7.0	10.0	10.0
Minimum Split (s)	11.5	40.5	40.5	11.5	40.5	40.5	11.5	40.5		11.5	40.5	40.5
Total Split (s)	18.0	64.0	64.0	12.0	58.0	58.0	12.0	40.5		12.0	42.0	42.0
Total Split (%)	13.8%	49.2%	49.2%	9.2%	44.6%	44.6%	9.2%	31.2%		9.2%	32.3%	32.3%
Maximum Green (s)	14.0	56.5	56.5	8.0	50.5	50.5	8.0	33.0		8.0	34.5	34.5
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	4.5		3.0	4.5	4.5
All-Red Time (s)	1.0	2.5	2.5	1.0	2.5	2.5	1.0	3.0		1.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	7.5	7.5	4.0	7.5	7.5	4.0	7.5		4.0	7.5	7.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	0.2	0.2	3.0	0.2	0.2	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	7.0
Flash Don't Walk (s)		26.0	26.0		26.0	26.0		26.0			26.0	26.0
Pedestrian Calls (#/hr)		0	0		0	0		0			0	0
Act Effct Green (s)	77.3	64.8	64.8	78.9	65.6	65.6	35.9	24.4		35.9	24.4	24.4
Actuated g/C Ratio	0.59	0.50	0.50	0.61	0.50	0.50	0.28	0.19		0.28	0.19	0.19
v/c Ratio	0.28	0.88	0.25	0.68	0.37	0.07	0.54	0.37		0.72	0.78	0.49
Control Delay (s/veh)	12.6	37.4	11.4	42.5	21.3	0.2	41.8	17.6		50.9	65.1	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	12.6	37.4	11.4	42.5	21.3	0.2	41.8	17.6		50.9	65.1	8.5
LOS	B	D	B	D	C	A	D	B		D	E	A
Approach Delay (s/veh)		32.9			22.6			25.3			42.7	
Approach LOS		C			C			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 9 (7%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Natural Cycle: 125			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay (s/veh): 31.3		Intersection LOS: C	
Intersection Capacity Utilization 85.3%		ICU Level of Service E	
Analysis Period (min) 15			

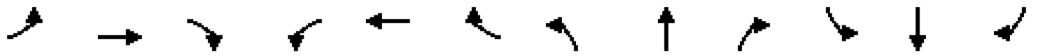
Splits and Phases: 19: 2nd Concession Road & Green Lane



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	105	1524	218	123	890	56	126	269	239	275	237
v/c Ratio	0.28	0.88	0.25	0.68	0.37	0.07	0.54	0.37	0.72	0.78	0.49
Control Delay (s/veh)	12.6	37.4	11.4	42.5	21.3	0.2	41.8	17.6	50.9	65.1	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	12.6	37.4	11.4	42.5	21.3	0.2	41.8	17.6	50.9	65.1	8.5
Queue Length 50th (m)	10.4	188.6	16.1	15.7	51.6	0.0	25.4	12.3	51.7	71.3	0.0
Queue Length 95th (m)	21.7	#271.7	36.6	#47.3	74.7	0.0	38.3	23.2	69.9	95.9	20.8
Internal Link Dist (m)		349.5			169.4			206.2		450.7	
Turn Bay Length (m)	100.0		40.0	70.0		30.0	100.0		80.0		
Base Capacity (vph)	439	1731	858	183	2380	809	233	968	331	499	590
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.88	0.25	0.67	0.37	0.07	0.54	0.28	0.72	0.55	0.40

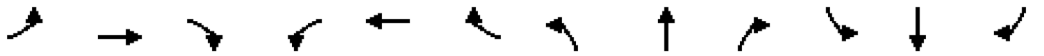
Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	1417	203	114	828	52	117	92	158	222	256	220
Future Volume (vph)	98	1417	203	114	828	52	117	92	158	222	256	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.5	7.5	4.0	7.5	7.5	4.0	7.5		4.0	7.5	7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	1.00	0.95		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.91		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1687	3471	1615	1671	4715	1468	1770	3187		1787	1881	1568
Flt Permitted	0.28	1.00	1.00	0.06	1.00	1.00	0.31	1.00		0.55	1.00	1.00
Satd. Flow (perm)	496	3471	1615	107	4715	1468	579	3187		1034	1881	1568
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	105	1524	218	123	890	56	126	99	170	239	275	237
RTOR Reduction (vph)	0	0	53	0	0	28	0	136	0	0	0	193
Lane Group Flow (vph)	105	1524	165	123	890	28	126	133	0	239	275	44
Heavy Vehicles (%)	7%	4%	0%	8%	10%	10%	2%	0%	4%	1%	1%	3%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2		2	8			4		4
Actuated Green, G (s)	73.8	64.8	64.8	75.4	65.6	65.6	32.4	24.4		32.4	24.4	24.4
Effective Green, g (s)	73.8	64.8	64.8	75.4	65.6	65.6	32.4	24.4		32.4	24.4	24.4
Actuated g/C Ratio	0.57	0.50	0.50	0.58	0.50	0.50	0.25	0.19		0.25	0.19	0.19
Clearance Time (s)	4.0	7.5	7.5	4.0	7.5	7.5	4.0	7.5		4.0	7.5	7.5
Vehicle Extension (s)	3.0	0.2	0.2	3.0	0.2	0.2	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	364	1730	805	179	2379	740	217	598		304	353	294
v/s Ratio Prot	0.02	c0.44		c0.05	0.19		0.04	0.04		c0.05	0.15	
v/s Ratio Perm	0.14		0.10	0.34		0.02	0.11			c0.15		0.03
v/c Ratio	0.29	0.88	0.21	0.69	0.37	0.04	0.58	0.22		0.79	0.78	0.15
Uniform Delay, d1	13.1	29.2	18.2	28.4	19.7	16.3	40.0	44.8		44.0	50.2	44.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.4	6.8	0.6	10.4	0.5	0.1	3.9	0.2		12.6	10.4	0.2
Delay (s)	13.6	36.0	18.8	38.8	20.1	16.4	43.9	45.0		56.5	60.6	44.4
Level of Service	B	D	B	D	C	B	D	D		E	E	D
Approach Delay (s/veh)		32.7			22.1			44.6			54.2	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	35.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

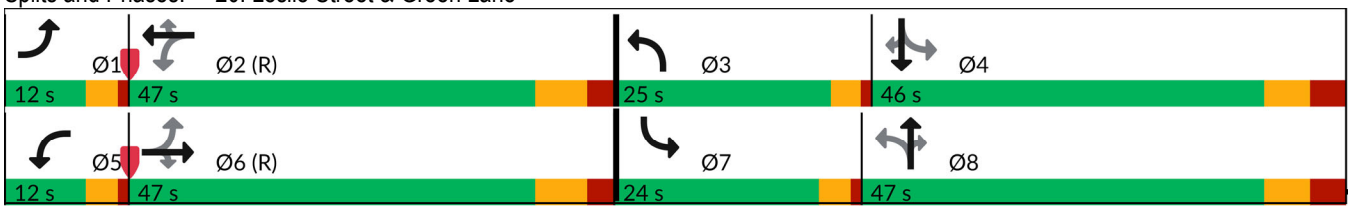


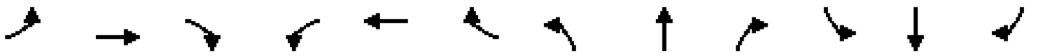
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	1095	536	132	785	69	219	223	52	267	476	60
Future Volume (vph)	68	1095	536	132	785	69	219	223	52	267	476	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		60.0	80.0		35.0	25.0		30.0	50.0		30.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			70.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	1.00					0.99			0.98	1.00		
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3438	1583	1736	3312	1468	1719	3343	1495	1770	3471	1583
Flt Permitted	0.276			0.093			0.285			0.590		
Satd. Flow (perm)	519	3438	1583	170	3312	1448	516	3343	1473	1097	3471	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			314			109			105			105
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		361.5			497.4			274.5			201.2	
Travel Time (s)		26.0			35.8			19.8			14.5	
Confl. Peds. (#/hr)	2					2			3	3		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	5%	2%	4%	9%	10%	5%	8%	8%	2%	4%	2%
Adj. Flow (vph)	71	1141	558	138	818	72	228	232	54	278	496	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	71	1141	558	138	818	72	228	232	54	278	496	63
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			Yes			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	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	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	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	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	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	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	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	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	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2		2	8		8	4		4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	37.0	37.0	7.0	37.0	37.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	11.5	44.5	44.5	11.5	44.5	44.5	11.5	45.0	45.0	11.5	45.0	45.0
Total Split (s)	12.0	47.0	47.0	12.0	47.0	47.0	25.0	47.0	47.0	24.0	46.0	46.0
Total Split (%)	9.2%	36.2%	36.2%	9.2%	36.2%	36.2%	19.2%	36.2%	36.2%	18.5%	35.4%	35.4%
Maximum Green (s)	8.0	39.5	39.5	8.0	39.5	39.5	21.0	39.0	39.0	20.0	38.0	38.0
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	1.0	2.5	2.5	1.0	2.5	2.5	1.0	3.5	3.5	1.0	3.5	3.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	7.5	7.5	4.0	7.5	7.5	4.0	8.0	8.0	4.0	8.0	8.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	6.0	6.0	3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Don't Walk (s)		30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	64.3	52.5	52.5	71.8	58.4	58.4	45.4	23.5	23.5	46.7	24.1	24.1
Actuated g/C Ratio	0.49	0.40	0.40	0.55	0.45	0.45	0.35	0.18	0.18	0.36	0.19	0.19
v/c Ratio	0.21	0.82	0.68	0.58	0.55	0.10	0.66	0.38	0.15	0.57	0.77	0.17
Control Delay (s/veh)	17.4	42.0	19.5	42.6	45.4	10.9	36.9	47.7	0.9	33.0	58.5	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.4	42.0	19.5	42.6	45.4	10.9	36.9	47.7	0.9	33.0	58.5	2.4
LOS	B	D	B	D	D	B	D	D	A	C	E	A
Approach Delay (s/veh)		33.9			42.6			38.0			45.8	
Approach LOS		C			D			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 111 (85%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay (s/veh): 39.0		Intersection LOS: D	
Intersection Capacity Utilization 83.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 20: Leslie Street & Green Lane

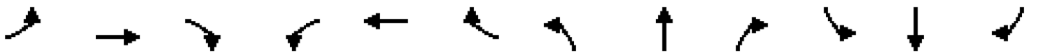




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	71	1141	558	138	818	72	228	232	54	278	496	63
v/c Ratio	0.21	0.82	0.68	0.58	0.55	0.10	0.66	0.38	0.15	0.57	0.77	0.17
Control Delay (s/veh)	17.4	42.0	19.5	42.6	45.4	10.9	36.9	47.7	0.9	33.0	58.5	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.4	42.0	19.5	42.6	45.4	10.9	36.9	47.7	0.9	33.0	58.5	2.4
Queue Length 50th (m)	8.7	143.7	53.9	27.8	105.3	1.5	42.9	29.5	0.0	53.8	67.6	0.0
Queue Length 95th (m)	19.1	#226.3	116.1	51.9	131.1	10.8	57.2	39.4	0.2	69.6	82.6	3.0
Internal Link Dist (m)		337.5			473.4			250.5			177.2	
Turn Bay Length (m)	30.0		60.0	80.0		35.0	25.0		30.0	50.0		30.0
Base Capacity (vph)	343	1388	826	237	1486	710	384	1002	515	504	1014	537
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.82	0.68	0.58	0.55	0.10	0.59	0.23	0.10	0.55	0.49	0.12

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	1095	536	132	785	69	219	223	52	267	476	60
Future Volume (vph)	68	1095	536	132	785	69	219	223	52	267	476	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.5	7.5	4.0	7.5	7.5	4.0	8.0	8.0	4.0	8.0	8.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	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	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1787	3438	1583	1736	3312	1448	1719	3343	1473	1767	3471	1583
Flt Permitted	0.28	1.00	1.00	0.09	1.00	1.00	0.29	1.00	1.00	0.59	1.00	1.00
Satd. Flow (perm)	519	3438	1583	171	3312	1448	516	3343	1473	1097	3471	1583
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	71	1141	558	138	818	72	228	232	54	278	496	62
RTOR Reduction (vph)	0	0	187	0	0	40	0	0	44	0	0	51
Lane Group Flow (vph)	71	1141	371	138	818	32	228	232	10	278	496	12
Confl. Peds. (#/hr)	2					2			3	3		
Heavy Vehicles (%)	1%	5%	2%	4%	9%	10%	5%	8%	8%	2%	4%	2%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2		2	8		8	4		4
Actuated Green, G (s)	59.4	52.5	52.5	68.4	57.5	57.5	41.4	23.5	23.5	42.8	24.2	24.2
Effective Green, g (s)	59.4	52.5	52.5	68.4	57.5	57.5	41.4	23.5	23.5	42.8	24.2	24.2
Actuated g/C Ratio	0.46	0.40	0.40	0.53	0.44	0.44	0.32	0.18	0.18	0.33	0.19	0.19
Clearance Time (s)	4.0	7.5	7.5	4.0	7.5	7.5	4.0	8.0	8.0	4.0	8.0	8.0
Vehicle Extension (s)	3.0	6.0	6.0	3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	304	1388	639	233	1464	640	329	604	266	457	646	294
v/s Ratio Prot	0.01	c0.33		c0.05	0.25		c0.10	0.07		0.09	c0.14	
v/s Ratio Perm	0.09		0.23	0.26		0.02	0.12		0.01	0.11		0.01
v/c Ratio	0.23	0.82	0.58	0.59	0.56	0.05	0.69	0.38	0.04	0.61	0.77	0.04
Uniform Delay, d1	20.4	34.6	30.2	22.7	26.9	20.7	35.3	46.9	43.9	34.7	50.2	43.4
Progression Factor	1.00	1.00	1.00	1.80	1.52	6.70	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	5.6	3.8	3.8	1.5	0.1	6.2	0.4	0.1	2.3	5.5	0.1
Delay (s)	20.8	40.2	34.0	44.8	42.4	138.6	41.5	47.3	44.0	37.0	55.7	43.4
Level of Service	C	D	C	D	D	F	D	D	D	D	E	D
Approach Delay (s/veh)		37.5			49.4			44.4			48.6	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	43.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	23.5
Intersection Capacity Utilization	83.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	204	1	0	165	2	0
Future Volume (vph)	204	1	0	165	2	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	0.999					
Flt Protected					0.950	
Satd. Flow (prot)	1808	0	0	1727	1805	0
Flt Permitted					0.950	
Satd. Flow (perm)	1808	0	0	1727	1805	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	166.0			159.5	189.1	
Travel Time (s)	12.0			11.5	13.6	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	5%	0%	0%	10%	0%	0%
Adj. Flow (vph)	240	1	0	194	2	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	241	0	0	194	2	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	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)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.8%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	204	1	0	165	2	0
Future Volume (Veh/h)	204	1	0	165	2	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	240	1	0	194	2	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			241		435	241
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			241		435	241
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1337		582	803

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	241	194	2
Volume Left	0	0	2
Volume Right	1	0	0
cSH	1700	1337	582
Volume to Capacity	0.14	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.1
Control Delay (s/veh)	0.0	0.0	11.2
Lane LOS			B
Approach Delay (s/veh)	0.0	0.0	11.2
Approach LOS			B

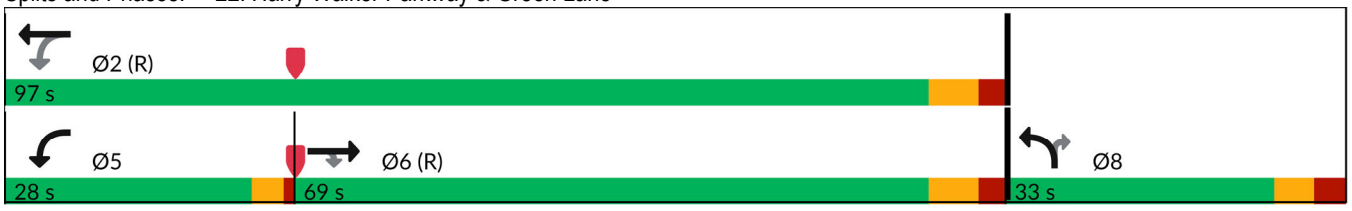
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	20.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1221	234	214	894	60	46
Future Volume (vph)	1221	234	214	894	60	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		40.0	75.0		0.0	0.0
Storage Lanes		1	1		1	1
Taper Length (m)			100.0		7.5	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3471	1583	1752	3374	1570	1404
Flt Permitted			0.128		0.950	
Satd. Flow (perm)	3471	1583	236	3374	1570	1404
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		115				48
Link Speed (k/h)	50			50	50	
Link Distance (m)	497.4			398.4	203.9	
Travel Time (s)	35.8			28.7	14.7	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	4%	2%	3%	7%	15%	15%
Adj. Flow (vph)	1272	244	223	931	63	48
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1272	244	223	931	63	48
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	Yes					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (m)	10.0	2.0	2.0	10.0	2.0	2.0
Trailing Detector (m)	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
Detector 1 Size(m)	0.6	2.0	2.0	0.6	2.0	2.0
Detector 1 Type	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
Detector 1 Queue (s)	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
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	8	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases		6	2			8
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	30.0	30.0	7.0	30.0	10.0	10.0
Minimum Split (s)	37.5	37.5	11.5	37.5	32.0	32.0
Total Split (s)	69.0	69.0	28.0	97.0	33.0	33.0
Total Split (%)	53.1%	53.1%	21.5%	74.6%	25.4%	25.4%
Maximum Green (s)	61.5	61.5	24.0	89.5	26.0	26.0
Yellow Time (s)	5.0	5.0	3.0	5.0	4.0	4.0
All-Red Time (s)	2.5	2.5	1.0	2.5	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5	7.5	4.0	7.5	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	0.2	0.2	3.0	0.2	3.0	3.0
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Don't Walk (s)	19.0	19.0			18.0	18.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	71.5	71.5	93.0	89.5	26.0	26.0
Actuated g/C Ratio	0.55	0.55	0.72	0.69	0.20	0.20
v/c Ratio	0.67	0.26	0.67	0.40	0.20	0.15
Control Delay (s/veh)	9.7	2.0	21.3	9.3	45.4	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	9.7	2.0	21.3	9.3	45.4	12.8
LOS	A	A	C	A	D	B
Approach Delay (s/veh)	8.4			11.6	31.3	
Approach LOS	A			B	C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 8 (6%), Referenced to phase 2:WBTL and 6:EBT, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay (s/veh): 10.7		Intersection LOS: B	
Intersection Capacity Utilization 69.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 22: Harry Walker Parkway & Green Lane



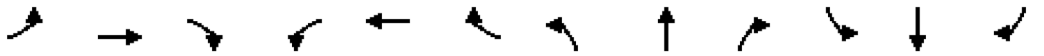
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1272	244	223	931	63	48
v/c Ratio	0.67	0.26	0.67	0.40	0.20	0.15
Control Delay (s/veh)	9.7	2.0	21.3	9.3	45.4	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	9.7	2.0	21.3	9.3	45.4	12.8
Queue Length 50th (m)	31.2	1.4	17.6	52.0	14.3	0.0
Queue Length 95th (m)	39.2	m3.3	42.4	63.7	28.1	11.1
Internal Link Dist (m)	473.4			374.4	179.9	
Turn Bay Length (m)		40.0	75.0			
Base Capacity (vph)	1908	922	448	2322	314	319
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.26	0.50	0.40	0.20	0.15

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

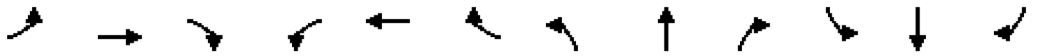
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1221	234	214	894	60	46
Future Volume (vph)	1221	234	214	894	60	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	4.0	7.5	7.0	7.0
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3471	1583	1752	3374	1570	1404
Flt Permitted	1.00	1.00	0.13	1.00	0.95	1.00
Satd. Flow (perm)	3471	1583	237	3374	1570	1404
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1272	244	223	931	62	48
RTOR Reduction (vph)	0	52	0	0	0	38
Lane Group Flow (vph)	1272	192	223	931	63	10
Heavy Vehicles (%)	4%	2%	3%	7%	15%	15%
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	8	
Permitted Phases		6	2			8
Actuated Green, G (s)	71.5	71.5	89.5	89.5	26.0	26.0
Effective Green, g (s)	71.5	71.5	89.5	89.5	26.0	26.0
Actuated g/C Ratio	0.55	0.55	0.69	0.69	0.20	0.20
Clearance Time (s)	7.5	7.5	4.0	7.5	7.0	7.0
Vehicle Extension (s)	0.2	0.2	3.0	0.2	3.0	3.0
Lane Grp Cap (vph)	1909	870	326	2322	314	280
v/s Ratio Prot	0.37		c0.07	0.28	c0.04	
v/s Ratio Perm		0.12	c0.40			0.01
v/c Ratio	0.67	0.22	0.68	0.40	0.20	0.03
Uniform Delay, d1	20.8	15.0	15.6	8.7	43.3	41.9
Progression Factor	0.38	0.17	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3	0.4	5.8	0.5	1.4	0.2
Delay (s)	9.2	3.0	21.4	9.2	44.8	42.1
Level of Service	A	A	C	A	D	D
Approach Delay (s/veh)	8.2			11.6	43.6	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	69.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	156	257	49	121	3	100	6	2	1	6	3
Future Volume (vph)	3	156	257	49	121	3	100	6	2	1	6	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		45.0	200.0		0.0	0.0		55.0	0.0		0.0
Storage Lanes	1		1	1		0	0		1	1		0
Taper Length (m)	7.5			90.0			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.997				0.850		0.955	
Flt Protected	0.950			0.950				0.955		0.950		
Satd. Flow (prot)	1805	3252	1524	1770	3042	0	0	1732	1615	1805	1622	0
Flt Permitted	0.950			0.950				0.955		0.950		
Satd. Flow (perm)	1805	3252	1524	1770	3042	0	0	1732	1615	1805	1622	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		338.3			392.1			139.5			42.1	
Travel Time (s)		24.4			28.2			10.0			3.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	11%	6%	2%	18%	33%	4%	17%	0%	0%	17%	0%
Adj. Flow (vph)	3	170	279	53	132	3	109	7	2	1	7	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	3	170	279	53	135	0	0	116	2	1	10	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
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.6%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	156	257	49	121	3	100	6	2	1	6	3
Future Volume (Veh/h)	3	156	257	49	121	3	100	6	2	1	6	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	170	279	53	132	3	109	7	2	1	7	3
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)									7			
Median type		None			None							
Median storage veh)												
Upstream signal (m)					392							
pX, platoon unblocked												
vC, conflicting volume	135			170			355	417	85	334	416	68
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	135			170			355	417	85	334	416	68
tC, single (s)	4.1			4.1			7.6	6.8	6.9	7.5	6.8	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.2	3.3	3.5	4.2	3.3
p0 queue free %	100			96			80	99	100	100	99	100
cM capacity (veh/h)	1462			1405			546	473	963	575	474	988

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1	SB 1	SB 2
Volume Total	3	85	85	279	53	88	47	118	1	10
Volume Left	3	0	0	0	53	0	0	109	1	0
Volume Right	0	0	0	279	0	0	3	2	0	3
cSH	1462	1700	1700	1700	1405	1700	1700	551	575	562
Volume to Capacity	0.00	0.05	0.05	0.16	0.04	0.05	0.03	0.21	0.00	0.02
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.9	0.0	0.0	6.4	0.0	0.4
Control Delay (s/veh)	7.5	0.0	0.0	0.0	7.7	0.0	0.0	13.4	11.3	11.5
Lane LOS	A				A			B	B	B
Approach Delay (s/veh)	0.0				2.2			13.4	11.5	
Approach LOS								B	B	

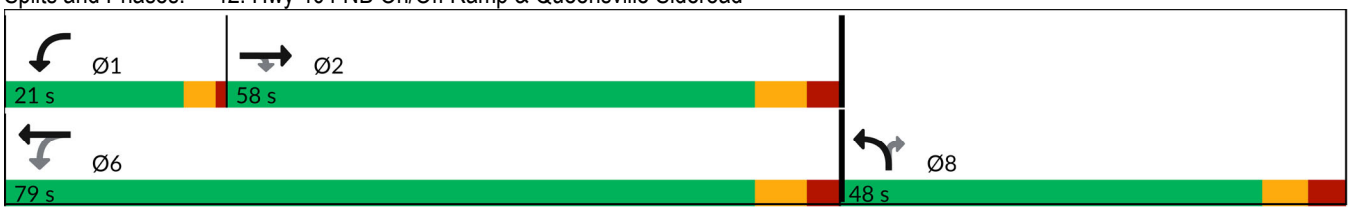
Intersection Summary				
Average Delay	2.8			
Intersection Capacity Utilization	32.6%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	68	88	0	114	89	20
Future Volume (vph)	68	88	0	114	89	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		100.0	90.0		0.0	70.0
Storage Lanes		1	1		2	1
Taper Length (m)			85.0		7.5	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt		0.850				0.850
Flt Protected					0.950	
Satd. Flow (prot)	3343	1429	1900	3282	3502	1615
Flt Permitted					0.950	
Satd. Flow (perm)	3343	1429	1900	3282	3502	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		96				22
Link Speed (k/h)	50			50	50	
Link Distance (m)	392.1			243.9	146.0	
Travel Time (s)	28.2			17.6	10.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	13%	0%	10%	0%	0%
Adj. Flow (vph)	74	96	0	124	97	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	74	96	0	124	97	22
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	7.2	
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)		15	25		25	15
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (m)	10.0	2.0	2.0	10.0	2.0	2.0
Trailing Detector (m)	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
Detector 1 Size(m)	0.6	2.0	2.0	0.6	2.0	2.0
Detector 1 Type	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
Detector 1 Queue (s)	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
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases		2	6			8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	20.0	10.0	10.0
Minimum Split (s)	49.0	49.0	11.0	49.0	38.0	38.0
Total Split (s)	58.0	58.0	21.0	79.0	48.0	48.0
Total Split (%)	45.7%	45.7%	16.5%	62.2%	37.8%	37.8%
Maximum Green (s)	50.0	50.0	17.0	71.0	40.0	40.0
Yellow Time (s)	5.0	5.0	3.0	5.0	4.5	4.5
All-Red Time (s)	3.0	3.0	1.0	3.0	3.5	3.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	8.0	4.0	8.0	8.0	8.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	4.0	4.0	2.0	4.0	3.0	3.0
Recall Mode	Min	Min	None	Min	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Don't Walk (s)	34.0	34.0			23.0	23.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	25.6	25.6		25.6	10.0	10.0
Actuated g/C Ratio	0.56	0.56		0.56	0.22	0.22
v/c Ratio	0.04	0.11		0.07	0.13	0.06
Control Delay (s/veh)	7.6	2.8		7.8	15.2	8.0
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	7.6	2.8		7.8	15.2	8.0
LOS	A	A		A	B	A
Approach Delay (s/veh)	4.9			7.8	13.9	
Approach LOS	A			A	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 127			
Actuated Cycle Length: 46.1			
Natural Cycle: 100			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.13			
Intersection Signal Delay (s/veh): 8.3		Intersection LOS: A	
Intersection Capacity Utilization 38.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 42: Hwy 404 NB On/Off Ramp & Queensville Sideroad

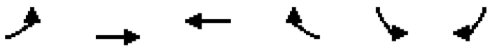


Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	74	96	124	97	22
v/c Ratio	0.04	0.11	0.07	0.13	0.06
Control Delay (s/veh)	7.6	2.8	7.8	15.2	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	7.6	2.8	7.8	15.2	8.0
Queue Length 50th (m)	1.7	0.0	3.0	3.4	0.0
Queue Length 95th (m)	4.4	5.8	6.5	7.8	4.1
Internal Link Dist (m)	368.1		219.9	122.0	
Turn Bay Length (m)		100.0			70.0
Base Capacity (vph)	3343	1429	3282	3042	1406
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.02	0.07	0.04	0.03	0.02

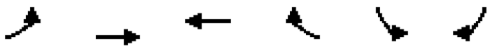
Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	68	88	0	114	89	20
Future Volume (vph)	68	88	0	114	89	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0		8.0	8.0	8.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3343	1429		3282	3502	1615
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3343	1429		3282	3502	1615
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	74	96	0	124	97	22
RTOR Reduction (vph)	0	48	0	0	0	18
Lane Group Flow (vph)	74	48	0	124	97	4
Heavy Vehicles (%)	8%	13%	0%	10%	0%	0%
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Actuated Green, G (s)	23.9	23.9		23.9	7.9	7.9
Effective Green, g (s)	23.9	23.9		23.9	7.9	7.9
Actuated g/C Ratio	0.50	0.50		0.50	0.17	0.17
Clearance Time (s)	8.0	8.0		8.0	8.0	8.0
Vehicle Extension (s)	4.0	4.0		4.0	3.0	3.0
Lane Grp Cap (vph)	1671	714		1641	578	266
v/s Ratio Prot	0.02			c0.04	c0.03	
v/s Ratio Perm		0.03				0.00
v/c Ratio	0.04	0.07		0.08	0.17	0.01
Uniform Delay, d1	6.1	6.2		6.2	17.1	16.7
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.0	0.1		0.0	0.1	0.0
Delay (s)	6.1	6.2		6.2	17.3	16.7
Level of Service	A	A		A	B	B
Approach Delay (s/veh)	6.2			6.2	17.2	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.11		
Actuated Cycle Length (s)	47.8	Sum of lost time (s)	20.0
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



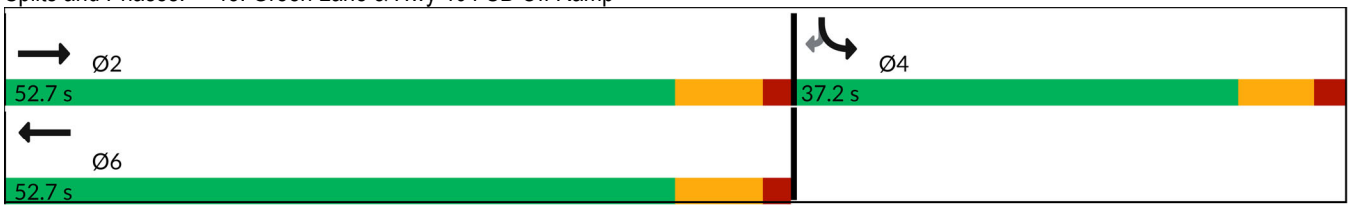
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	436	750	0	12	418
Future Volume (vph)	0	436	750	0	12	418
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	0.95
Frt					0.858	0.850
Flt Protected					0.997	
Satd. Flow (prot)	0	3312	3252	0	1625	1534
Flt Permitted					0.997	
Satd. Flow (perm)	0	3312	3252	0	1625	1534
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)					127	127
Link Speed (k/h)		50	50		50	
Link Distance (m)		398.4	381.7		240.9	
Travel Time (s)		28.7	27.5		17.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	9%	11%	3%	0%	0%
Adj. Flow (vph)	0	474	815	0	13	454
Shared Lane Traffic (%)						49%
Lane Group Flow (vph)	0	474	815	0	235	232
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
Number of Detectors		2	2		1	1
Detector Template		Thru	Thru		Left	Right
Leading Detector (m)		10.0	10.0		2.0	2.0
Trailing Detector (m)		0.0	0.0		0.0	0.0
Detector 1 Position(m)		0.0	0.0		0.0	0.0
Detector 1 Size(m)		0.6	0.6		2.0	2.0
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	0.0
Detector 1 Queue (s)		0.0	0.0		0.0	0.0
Detector 1 Delay (s)		0.0	0.0		0.0	0.0
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	Perm
Protected Phases		2	6		4	
Permitted Phases						4
Detector Phase		2	6		4	4
Switch Phase						

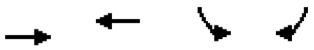


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Initial (s)		20.0	20.0		10.0	10.0
Minimum Split (s)		27.7	27.7		22.5	22.5
Total Split (s)		52.7	52.7		37.2	37.2
Total Split (%)		58.6%	58.6%		41.4%	41.4%
Maximum Green (s)		45.0	45.0		30.0	30.0
Yellow Time (s)		5.9	5.9		5.1	5.1
All-Red Time (s)		1.8	1.8		2.1	2.1
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.7	7.7		7.2	7.2
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		4.0	4.0		3.0	3.0
Recall Mode		Max	Max		Max	Max
Act Effct Green (s)		45.0	45.0		30.0	30.0
Actuated g/C Ratio		0.50	0.50		0.33	0.33
v/c Ratio		0.29	0.50		0.38	0.39
Control Delay (s/veh)		13.7	16.3		12.4	12.5
Queue Delay		0.0	0.0		0.0	0.0
Total Delay (s/veh)		13.7	16.3		12.4	12.5
LOS		B	B		B	B
Approach Delay (s/veh)		13.7	16.3		12.5	
Approach LOS		B	B		B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 89.9			
Actuated Cycle Length: 89.9			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay (s/veh): 14.6		Intersection LOS: B	
Intersection Capacity Utilization 50.4%		ICU Level of Service A	
Analysis Period (min) 15			

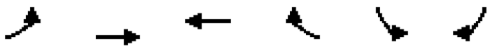
Splits and Phases: 45: Green Lane & Hwy 404 SB Off Ramp





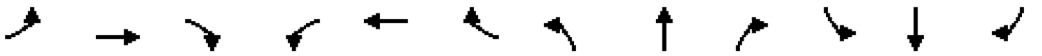
Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	474	815	235	232
v/c Ratio	0.29	0.50	0.38	0.39
Control Delay (s/veh)	13.7	16.3	12.4	12.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	13.7	16.3	12.4	12.5
Queue Length 50th (m)	25.1	49.5	13.9	14.2
Queue Length 95th (m)	35.4	65.8	33.0	34.5
Internal Link Dist (m)	374.4	357.7	216.9	
Turn Bay Length (m)				
Base Capacity (vph)	1657	1627	626	596
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.29	0.50	0.38	0.39

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		Y	↱
Traffic Volume (vph)	0	436	750	0	12	418
Future Volume (vph)	0	436	750	0	12	418
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.7	7.7		7.2	7.2
Lane Util. Factor		0.95	0.95		1.00	0.95
Frt		1.00	1.00		0.86	0.85
Flt Protected		1.00	1.00		1.00	1.00
Satd. Flow (prot)		3312	3252		1626	1534
Flt Permitted		1.00	1.00		1.00	1.00
Satd. Flow (perm)		3312	3252		1626	1534
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	474	815	0	13	454
RTOR Reduction (vph)	0	0	0	0	85	85
Lane Group Flow (vph)	0	474	815	0	150	147
Heavy Vehicles (%)	0%	9%	11%	3%	0%	0%
Turn Type		NA	NA		Prot	Perm
Protected Phases		2	6		4	
Permitted Phases						4
Actuated Green, G (s)		45.0	45.0		30.0	30.0
Effective Green, g (s)		45.0	45.0		30.0	30.0
Actuated g/C Ratio		0.50	0.50		0.33	0.33
Clearance Time (s)		7.7	7.7		7.2	7.2
Vehicle Extension (s)		4.0	4.0		3.0	3.0
Lane Grp Cap (vph)		1657	1627		542	511
v/s Ratio Prot		0.14	c0.25		0.09	
v/s Ratio Perm						c0.10
v/c Ratio		0.29	0.50		0.28	0.29
Uniform Delay, d1		13.1	15.0		22.0	22.1
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.4	1.1		1.3	1.4
Delay (s)		13.5	16.1		23.3	23.5
Level of Service		B	B		C	C
Approach Delay (s/veh)		13.5	16.1		23.4	
Approach LOS		B	B		C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	89.9	Sum of lost time (s)	14.9
Intersection Capacity Utilization	50.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

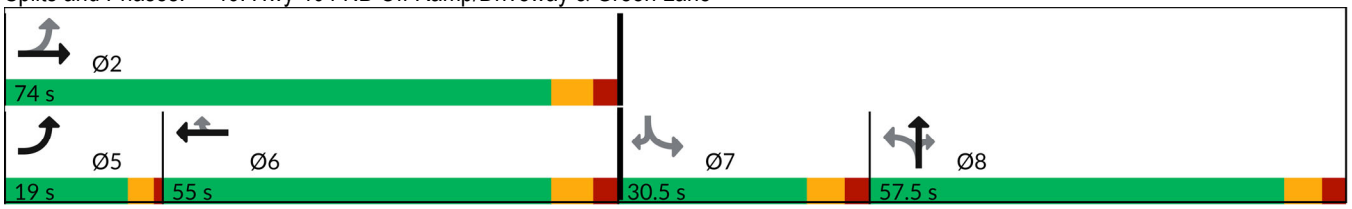


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	290	0	0	364	0	450	1	45	2	0	7
Future Volume (vph)	10	290	0	0	364	0	450	1	45	2	0	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	0.0		35.0	0.0		65.0	0.0		0.0
Storage Lanes	1		0	0		1	1		1	1		1
Taper Length (m)	75.0			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt									0.850			0.850
Flt Protected	0.950						0.950	0.953		0.950		
Satd. Flow (prot)	1480	3343	0	0	3343	1900	1531	1537	1417	902	0	1252
Flt Permitted	0.439						0.950	0.953				
Satd. Flow (perm)	684	3343	0	0	3343	1900	1531	1537	1417	950	0	1252
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)									111			111
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		381.7			245.7			510.8			44.1	
Travel Time (s)		27.5			17.7			36.8			3.2	
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 (%)	22%	8%	9%	0%	8%	0%	12%	0%	14%	100%	0%	29%
Adj. Flow (vph)	11	315	0	0	396	0	489	1	49	2	0	8
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	11	315	0	0	396	0	244	246	49	2	0	8
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			2	1	1	2	1	1		1
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right	Left		Right
Leading Detector (m)	2.0	10.0			10.0	2.0	2.0	10.0	2.0	2.0		2.0
Trailing Detector (m)	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
Detector 1 Size(m)	2.0	0.6			0.6	2.0	2.0	0.6	2.0	2.0		2.0
Detector 1 Type	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
Detector 1 Queue (s)	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
Detector 2 Position(m)		9.4			9.4			9.4				
Detector 2 Size(m)		0.6			0.6			0.6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	pm+pt	NA			NA	Perm	Perm	NA	Perm	Perm		Perm
Protected Phases	5	2			6			8				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2					6	8		8	7		7
Detector Phase	5	2			6	6	8	8	8	7		7
Switch Phase												
Minimum Initial (s)	7.0	20.0			20.0	20.0	10.0	10.0	10.0	10.0		10.0
Minimum Split (s)	11.0	41.0			41.0	41.0	40.5	40.5	40.5	17.7		17.7
Total Split (s)	19.0	74.0			55.0	55.0	57.5	57.5	57.5	30.5		30.5
Total Split (%)	11.7%	45.7%			34.0%	34.0%	35.5%	35.5%	35.5%	18.8%		18.8%
Maximum Green (s)	15.0	66.0			47.0	47.0	50.0	50.0	50.0	23.0		23.0
Yellow Time (s)	3.0	5.0			5.0	5.0	4.5	4.5	4.5	4.5		4.5
All-Red Time (s)	1.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0		3.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.0	8.0			8.0	8.0	7.5	7.5	7.5	7.5		7.5
Lead/Lag	Lead				Lag	Lag	Lag	Lag	Lag	Lead		Lead
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	4.0			4.0	4.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	Min			Min	Min	None	None	None	None		None
Walk Time (s)		7.0			7.0	7.0	7.0	7.0	7.0			
Flash Don't Walk (s)		26.0			26.0	26.0	26.0	26.0	26.0			
Pedestrian Calls (#/hr)		0			0	0	0	0	0			
Act Effct Green (s)	27.9	23.5			22.2		16.7	16.7	16.7	11.2		11.2
Actuated g/C Ratio	0.47	0.39			0.37		0.28	0.28	0.28	0.19		0.19
v/c Ratio	0.03	0.24			0.32		0.57	0.57	0.10	0.01		0.02
Control Delay (s/veh)	14.2	15.2			18.4		25.7	25.7	0.4	30.0		0.1
Queue Delay	0.0	0.0			0.0		0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)	14.2	15.2			18.4		25.7	25.7	0.4	30.0		0.1
LOS	B	B			B		C	C	A	C		A
Approach Delay (s/veh)		15.1			18.4			23.4			6.1	
Approach LOS		B			B			C			A	

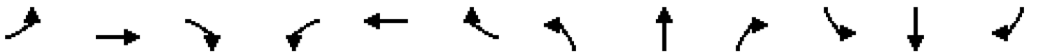
Intersection Summary			
Area Type:	Other		
Cycle Length: 162			
Actuated Cycle Length: 59.6			
Natural Cycle: 115			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay (s/veh): 19.6		Intersection LOS: B	
Intersection Capacity Utilization 56.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 46: Hwy 404 NB Off Ramp/Driveway & Green Lane



Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Group Flow (vph)	11	315	396	244	246	49	2	8
v/c Ratio	0.03	0.24	0.32	0.57	0.57	0.10	0.01	0.02
Control Delay (s/veh)	14.2	15.2	18.4	25.7	25.7	0.4	30.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.2	15.2	18.4	25.7	25.7	0.4	30.0	0.1
Queue Length 50th (m)	0.5	9.2	11.8	20.1	20.2	0.0	0.2	0.0
Queue Length 95th (m)	5.1	35.2	52.5	70.5	71.2	0.0	2.6	0.0
Internal Link Dist (m)		357.7	221.7		486.8			
Turn Bay Length (m)	25.0					65.0		
Base Capacity (vph)	538	3116	2848	1340	1345	1254	399	590
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	0.02	0.10	0.14	0.18	0.18	0.04	0.01	0.01

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	290	0	0	364	0	450	1	45	2	0	7
Future Volume (vph)	10	290	0	0	364	0	450	1	45	2	0	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	8.0			8.0		7.5	7.5	7.5	7.5		7.5
Lane Util. Factor	1.00	0.95			0.95		0.95	0.95	1.00	1.00		1.00
Frt	1.00	1.00			1.00		1.00	1.00	0.85	1.00		0.85
Flt Protected	0.95	1.00			1.00		0.95	0.95	1.00	0.95		1.00
Satd. Flow (prot)	1480	3343			3343		1531	1536	1417	903		1252
Flt Permitted	0.44	1.00			1.00		0.95	0.95	1.00	1.00		1.00
Satd. Flow (perm)	684	3343			3343		1531	1536	1417	950		1252
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	315	0	0	396	0	489	1	49	2	0	8
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	37	0	0	8
Lane Group Flow (vph)	11	315	0	0	396	0	244	246	12	2	0	0
Heavy Vehicles (%)	22%	8%	9%	0%	8%	0%	12%	0%	14%	100%	0%	29%
Turn Type	pm+pt	NA			NA	Perm	Perm	NA	Perm	Perm		Perm
Protected Phases	5	2			6			8				
Permitted Phases	2					6	8		8	7		7
Actuated Green, G (s)	27.1	27.1			22.2		16.7	16.7	16.7	1.5		1.5
Effective Green, g (s)	27.1	27.1			22.2		16.7	16.7	16.7	1.5		1.5
Actuated g/C Ratio	0.40	0.40			0.33		0.24	0.24	0.24	0.02		0.02
Clearance Time (s)	4.0	8.0			8.0		7.5	7.5	7.5	7.5		7.5
Vehicle Extension (s)	3.0	4.0			4.0		3.0	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	281	1326			1086		374	375	346	20		27
v/s Ratio Prot	0.00	c0.09			c0.12							
v/s Ratio Perm	0.01						0.16	0.16	0.01	c0.00		0.00
v/c Ratio	0.04	0.24			0.36		0.65	0.66	0.03	0.10		0.01
Uniform Delay, d1	12.6	13.7			17.6		23.2	23.2	19.7	32.7		32.7
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	0.1	0.1			0.3		4.1	4.1	0.0	2.2		0.1
Delay (s)	12.7	13.8			17.9		27.2	27.3	19.7	34.9		32.8
Level of Service	B	B			B		C	C	B	C		C
Approach Delay (s/veh)		13.8			17.9			26.6			33.2	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	68.3	Sum of lost time (s)	27.0
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

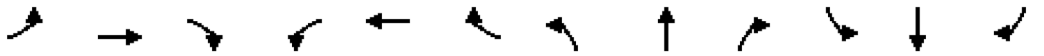
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	433	32	45	663	42	66
Future Volume (vph)	433	32	45	663	42	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	25.0		0.0	0.0
Storage Lanes		0	1		1	0
Taper Length (m)			55.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.991				0.918	
Flt Protected			0.950		0.981	
Satd. Flow (prot)	1845	0	1736	1827	1658	0
Flt Permitted			0.950		0.981	
Satd. Flow (perm)	1845	0	1736	1827	1658	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	171.7			149.2	240.9	
Travel Time (s)	12.4			10.7	17.3	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	3%	4%	4%	5%	2%
Adj. Flow (vph)	442	33	46	677	43	67
Shared Lane Traffic (%)						
Lane Group Flow (vph)	475	0	46	677	110	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)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	433	32	45	663	42	66
Future Volume (Veh/h)	433	32	45	663	42	66
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	442	33	46	677	43	67
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			475		1228	459
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			475		1228	459
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		77	89
cM capacity (veh/h)			1077		186	602

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	475	46	677	110
Volume Left	0	46	0	43
Volume Right	33	0	0	67
cSH	1700	1077	1700	321
Volume to Capacity	0.28	0.04	0.40	0.34
Queue Length 95th (m)	0.0	1.1	0.0	11.8
Control Delay (s/veh)	0.0	8.5	0.0	22.0
Lane LOS		A		C
Approach Delay (s/veh)	0.0	0.5		22.0
Approach LOS				C

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	401	20	60	586	2	25	72	89	1	36	86
Future Volume (vph)	104	401	20	60	586	2	25	72	89	1	36	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	65.0		0.0	55.0		0.0	40.0		35.0	40.0		0.0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (m)	90.0			100.0			100.0			70.0		
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
Frt		0.993							0.850		0.894	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1830	0	1805	1807	0	1805	1881	1583	902	1675	0
Flt Permitted	0.367			0.504			0.674			0.708		
Satd. Flow (perm)	670	1830	0	958	1807	0	1281	1881	1583	673	1675	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5							94		91	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		186.1			193.8			203.7			234.7	
Travel Time (s)		13.4			14.0			14.7			16.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	3%	5%	0%	5%	50%	0%	1%	2%	100%	0%	2%
Adj. Flow (vph)	109	422	21	63	617	2	26	76	94	1	38	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	443	0	63	619	0	26	76	94	1	129	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	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	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	
Detector 1 Position(m)	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	0.6		2.0	0.6	2.0	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	
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	
Detector 1 Queue (s)	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	
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	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			8			4	

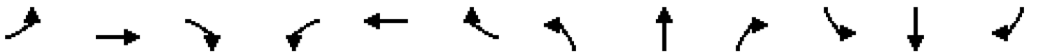
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6			2			8		8	4		
Detector Phase	6	6		2	2		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0		20.0	20.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	33.0	33.0		33.0	33.0		34.0	34.0	34.0	17.0	17.0	
Total Split (s)	47.0	47.0		47.0	47.0		26.0	26.0	26.0	26.0	26.0	
Total Split (%)	64.4%	64.4%		64.4%	64.4%		35.6%	35.6%	35.6%	35.6%	35.6%	
Maximum Green (s)	40.0	40.0		40.0	40.0		19.0	19.0	19.0	19.0	19.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	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	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	6.0	6.0		6.0	6.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None	None	None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0			
Flash Don't Walk (s)	19.0	19.0		19.0	19.0		20.0	20.0	20.0			
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0			
Act Effct Green (s)	32.4	32.4		32.4	32.4		10.4	10.4	10.4	10.4	10.4	
Actuated g/C Ratio	0.63	0.63		0.63	0.63		0.20	0.20	0.20	0.20	0.20	
v/c Ratio	0.26	0.38		0.10	0.54		0.10	0.20	0.24	0.01	0.31	
Control Delay (s/veh)	8.4	7.7		6.2	9.8		21.6	21.6	7.9	21.0	11.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	8.4	7.7		6.2	9.8		21.6	21.6	7.9	21.0	11.5	
LOS	A	A		A	A		C	C	A	C	B	
Approach Delay (s/veh)		7.9			9.5			15.0			11.5	
Approach LOS		A			A			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 73			
Actuated Cycle Length: 51.2			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay (s/veh): 9.8		Intersection LOS: A	
Intersection Capacity Utilization 85.9%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 2: 2nd Concession Road & Queensville Sideroad

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	109	443	63	619	26	76	94	1	129
v/c Ratio	0.26	0.38	0.10	0.54	0.10	0.20	0.24	0.01	0.31
Control Delay (s/veh)	8.4	7.7	6.2	9.8	21.6	21.6	7.9	21.0	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	8.4	7.7	6.2	9.8	21.6	21.6	7.9	21.0	11.5
Queue Length 50th (m)	5.2	23.0	2.7	37.8	2.0	5.9	0.0	0.1	2.9
Queue Length 95th (m)	13.1	40.2	7.1	64.8	9.0	19.3	11.2	1.3	17.6
Internal Link Dist (m)		162.1		169.8		179.7			210.7
Turn Bay Length (m)	65.0		55.0		40.0		35.0	40.0	
Base Capacity (vph)	535	1462	765	1443	486	713	658	255	691
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.30	0.08	0.43	0.05	0.11	0.14	0.00	0.19

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	401	20	60	586	2	25	72	89	1	36	86
Future Volume (vph)	104	401	20	60	586	2	25	72	89	1	36	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.99		1.00	1.00		1.00	1.00	0.85	1.00	0.89	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1736	1830		1805	1806		1805	1881	1583	903	1675	
Flt Permitted	0.37	1.00		0.50	1.00		0.67	1.00	1.00	0.71	1.00	
Satd. Flow (perm)	671	1830		957	1806		1281	1881	1583	672	1675	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	109	422	21	63	617	2	26	76	94	1	38	91
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	80	0	77	0
Lane Group Flow (vph)	109	441	0	63	619	0	26	76	14	1	52	0
Heavy Vehicles (%)	4%	3%	5%	0%	5%	50%	0%	1%	2%	100%	0%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8		8	4		
Actuated Green, G (s)	30.7	30.7		30.7	30.7		7.9	7.9	7.9	7.9	7.9	
Effective Green, g (s)	30.7	30.7		30.7	30.7		7.9	7.9	7.9	7.9	7.9	
Actuated g/C Ratio	0.58	0.58		0.58	0.58		0.15	0.15	0.15	0.15	0.15	
Clearance Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Vehicle Extension (s)	6.0	6.0		6.0	6.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	391	1068		558	1054		192	282	237	100	251	
v/s Ratio Prot		0.24			c0.34			c0.04			0.03	
v/s Ratio Perm	0.16			0.07			0.02		0.01	0.00		
v/c Ratio	0.28	0.41		0.11	0.59		0.14	0.27	0.06	0.01	0.21	
Uniform Delay, d1	5.4	6.0		4.9	6.9		19.4	19.8	19.2	19.0	19.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.1	0.7		0.3	1.6		0.3	0.5	0.1	0.0	0.4	
Delay (s)	6.5	6.7		5.1	8.5		19.7	20.3	19.3	19.1	20.0	
Level of Service	A	A		A	A		B	C	B	B	C	
Approach Delay (s/veh)		6.7			8.2			19.7			20.0	
Approach LOS		A			A			B			C	

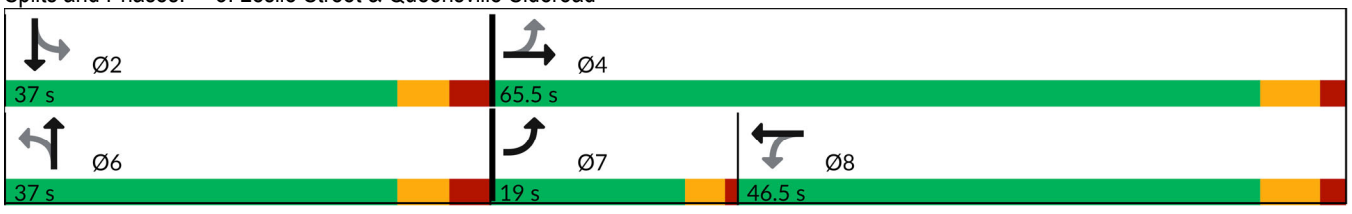
Intersection Summary			
HCM 2000 Control Delay (s/veh)	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	52.6	Sum of lost time (s)	14.0
Intersection Capacity Utilization	85.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

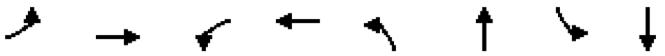
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	198	254	21	82	464	48	47	195	64	30	85	96
Future Volume (vph)	198	254	21	82	464	48	47	195	64	30	85	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	30.0		0.0	35.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	50.0			45.0			65.0			85.0		
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			1.00				0.99	
Frt		0.988			0.986			0.963			0.920	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1773	0	1736	1789	0	1770	1764	0	1752	1671	0
Flt Permitted	0.168			0.578			0.611			0.483		
Satd. Flow (perm)	313	1773	0	1054	1789	0	1137	1764	0	891	1671	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			6			16			56	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		332.1			502.4			233.2			242.2	
Travel Time (s)		23.9			36.2			16.8			17.4	
Confl. Peds. (#/hr)			1	1			1					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 (%)	2%	5%	14%	4%	5%	2%	2%	3%	6%	3%	5%	2%
Adj. Flow (vph)	215	276	23	89	504	52	51	212	70	33	92	104
Shared Lane Traffic (%)												
Lane Group Flow (vph)	215	299	0	89	556	0	51	282	0	33	196	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	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			6			2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	7.0	10.0		10.0	10.0		30.0	30.0		30.0	30.0	
Minimum Split (s)	11.5	26.5		26.5	26.5		37.0	37.0		37.0	37.0	
Total Split (s)	19.0	65.5		46.5	46.5		37.0	37.0		37.0	37.0	
Total Split (%)	18.5%	63.9%		45.4%	45.4%		36.1%	36.1%		36.1%	36.1%	
Maximum Green (s)	15.0	59.0		40.0	40.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	3.0	4.5		4.5	4.5		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.5		6.5	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	6.0		6.0	6.0		0.2	0.2		0.2	0.2	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)		7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)		13.0		13.0	13.0		20.0	20.0		20.0	20.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	55.3	52.8		35.3	35.3		30.2	30.2		30.2	30.2	
Actuated g/C Ratio	0.57	0.55		0.37	0.37		0.31	0.31		0.31	0.31	
v/c Ratio	0.56	0.31		0.23	0.85		0.14	0.50		0.12	0.35	
Control Delay (s/veh)	16.1	12.3		23.0	41.3		27.9	30.7		27.9	21.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	16.1	12.3		23.0	41.3		27.9	30.7		27.9	21.6	
LOS	B	B		C	D		C	C		C	C	
Approach Delay (s/veh)		13.9			38.8			30.3			22.5	
Approach LOS		B			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 102.5			
Actuated Cycle Length: 96.6			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay (s/veh): 27.5		Intersection LOS: C	
Intersection Capacity Utilization 91.9%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 3: Leslie Street & Queensville Sideroad

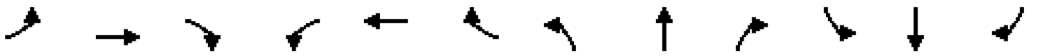




Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	215	299	89	556	51	282	33	196
v/c Ratio	0.56	0.31	0.23	0.85	0.14	0.50	0.12	0.35
Control Delay (s/veh)	16.1	12.3	23.0	41.3	27.9	30.7	27.9	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.1	12.3	23.0	41.3	27.9	30.7	27.9	21.6
Queue Length 50th (m)	19.0	29.2	12.2	100.1	7.8	46.2	5.0	22.4
Queue Length 95th (m)	31.8	45.1	24.2	#147.5	17.8	73.3	13.0	42.9
Internal Link Dist (m)		308.1		478.4		209.2		218.2
Turn Bay Length (m)	25.0		30.0		35.0		25.0	
Base Capacity (vph)	407	1093	439	749	355	562	278	560
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	0.53	0.27	0.20	0.74	0.14	0.50	0.12	0.35

Intersection Summary

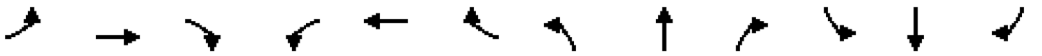
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	198	254	21	82	464	48	47	195	64	30	85	96
Future Volume (vph)	198	254	21	82	464	48	47	195	64	30	85	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.5		6.5	6.5		7.0	7.0		7.0	7.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.96		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1774		1733	1789		1767	1763		1752	1672	
Flt Permitted	0.17	1.00		0.58	1.00		0.61	1.00		0.48	1.00	
Satd. Flow (perm)	312	1774		1053	1789		1137	1763		892	1672	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	215	276	23	89	504	52	51	212	70	33	92	104
RTOR Reduction (vph)	0	3	0	0	4	0	0	11	0	0	38	0
Lane Group Flow (vph)	215	296	0	89	552	0	51	271	0	33	158	0
Confl. Peds. (#/hr)			1	1			1					1
Heavy Vehicles (%)	2%	5%	14%	4%	5%	2%	2%	3%	6%	3%	5%	2%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			6			2	
Permitted Phases	4			8			6			2		
Actuated Green, G (s)	52.8	52.8		35.3	35.3		30.2	30.2		30.2	30.2	
Effective Green, g (s)	52.8	52.8		35.3	35.3		30.2	30.2		30.2	30.2	
Actuated g/C Ratio	0.55	0.55		0.37	0.37		0.31	0.31		0.31	0.31	
Clearance Time (s)	4.0	6.5		6.5	6.5		7.0	7.0		7.0	7.0	
Vehicle Extension (s)	3.0	6.0		6.0	6.0		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)	374	970		385	654		355	551		279	523	
v/s Ratio Prot	c0.08	0.17			c0.31			c0.15			0.09	
v/s Ratio Perm	0.23			0.08			0.04			0.04		
v/c Ratio	0.57	0.30		0.23	0.84		0.14	0.49		0.12	0.30	
Uniform Delay, d1	15.5	11.9		21.2	28.1		23.8	26.9		23.7	25.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.1	0.5		0.9	11.2		0.8	3.1		0.9	1.5	
Delay (s)	17.7	12.4		22.1	39.3		24.7	30.0		24.5	26.6	
Level of Service	B	B		C	D		C	C		C	C	
Approach Delay (s/veh)		14.6			36.9			29.2			26.3	
Approach LOS		B			D			C			C	

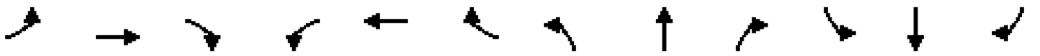
Intersection Summary			
HCM 2000 Control Delay (s/veh)	27.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	96.5	Sum of lost time (s)	17.5
Intersection Capacity Utilization	91.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1	2	61	0	13	4	130	65	9	89	1
Future Volume (vph)	0	1	2	61	0	13	4	130	65	9	89	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	20.0		0.0	35.0		0.0	25.0		0.0	35.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	15.0			30.0			35.0			60.0		
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												
Frt		0.900			0.850			0.950			0.998	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	1900	1710	0	1805	1615	0	1805	1758	0	1805	1807	0
Flt Permitted				0.950			0.950			0.950		
Satd. Flow (perm)	1900	1710	0	1805	1615	0	1805	1758	0	1805	1807	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		119.9			139.2			203.5			182.5	
Travel Time (s)		8.6			10.0			14.7			13.1	
Confl. Peds. (#/hr)									5	5		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	2%	0%	5%	0%
Adj. Flow (vph)	0	1	2	65	0	14	4	138	69	10	95	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	65	14	0	4	207	0	10	96	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
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.1%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	2	61	0	13	4	130	65	9	89	1
Future Volume (Veh/h)	0	1	2	61	0	13	4	130	65	9	89	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	1	2	65	0	14	4	138	69	10	95	1
Pedestrians					5							
Lane Width (m)					3.6							
Walking Speed (m/s)					1.2							
Percent Blockage					0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	276	336	96	303	302	178	96			212		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	276	336	96	303	302	178	96			212		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	90	100	98	100			99		
cM capacity (veh/h)	663	580	967	641	606	867	1510			1365		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	0	3	65	14	4	207	10	96
Volume Left	0	0	65	0	4	0	10	0
Volume Right	0	2	0	14	0	69	0	1
cSH	1700	791	641	867	1510	1700	1365	1700
Volume to Capacity	0.00	0.00	0.10	0.02	0.00	0.12	0.01	0.06
Queue Length 95th (m)	0.0	0.1	2.7	0.4	0.1	0.0	0.2	0.0
Control Delay (s/veh)	0.0	9.6	11.2	9.2	7.4	0.0	7.7	0.0
Lane LOS	A	A	B	A	A		A	
Approach Delay (s/veh)	9.6		10.9		0.1		0.7	
Approach LOS	A		B					

Intersection Summary				
Average Delay	2.5			
Intersection Capacity Utilization	28.1%	ICU Level of Service		A
Analysis Period (min)	15			

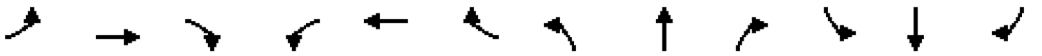
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	55	9	53	76	4	31
Future Volume (vph)	55	9	53	76	4	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.981				0.879	
Flt Protected				0.980	0.995	
Satd. Flow (prot)	1864	0	0	1862	1662	0
Flt Permitted				0.980	0.995	
Satd. Flow (perm)	1864	0	0	1862	1662	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	269.9			266.6	251.7	
Travel Time (s)	19.4			19.2	18.1	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	60	10	58	84	4	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	70	0	0	142	38	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	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)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.6%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	55	9	53	76	4	31
Future Volume (Veh/h)	55	9	53	76	4	31
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	60	10	58	84	4	34
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			70		265	65
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			70		265	65
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		99	97
cM capacity (veh/h)			1544		701	1005

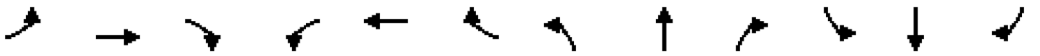
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	70	142	38
Volume Left	0	58	4
Volume Right	10	0	34
cSH	1700	1544	961
Volume to Capacity	0.04	0.04	0.04
Queue Length 95th (m)	0.0	0.9	1.0
Control Delay (s/veh)	0.0	3.2	8.9
Lane LOS		A	A
Approach Delay (s/veh)	0.0	3.2	8.9
Approach LOS			A

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	23.6%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	48	51	39	62	12	47	186	34	1	103	10
Future Volume (vph)	9	48	51	39	62	12	47	186	34	1	103	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		0.0	85.0		0.0	85.0		0.0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (m)	7.5			7.5			85.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.936			0.986			0.977			0.987	
Flt Protected		0.996			0.983		0.950			0.950		
Satd. Flow (prot)	0	1739	0	0	1822	0	1770	3468	0	1805	3499	0
Flt Permitted		0.996			0.983		0.950			0.950		
Satd. Flow (perm)	0	1739	0	0	1822	0	1770	3468	0	1805	3499	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		264.6			213.3			310.5			329.6	
Travel Time (s)		19.1			15.4			22.4			23.7	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	2%	2%	0%	2%	0%	2%	2%	0%	0%	2%	0%
Adj. Flow (vph)	9	49	52	40	63	12	48	190	35	1	105	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	110	0	0	115	0	48	225	0	1	115	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			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
Sign Control		Stop			Stop			Free			Free	

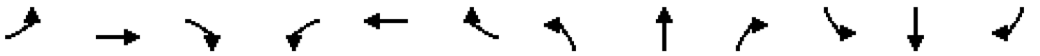
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.8%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	48	51	39	62	12	47	186	34	1	103	10
Future Volume (Veh/h)	9	48	51	39	62	12	47	186	34	1	103	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	9	49	52	40	63	12	48	190	35	1	105	10
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	347	433	58	435	421	113	115			225		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	347	433	58	435	421	113	115			225		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	90	95	91	88	99	97			100		
cM capacity (veh/h)	512	497	997	436	505	925	1472			1356		

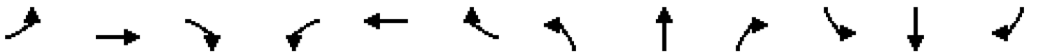
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	110	115	48	127	98	1	70	45
Volume Left	9	40	48	0	0	1	0	0
Volume Right	52	12	0	0	35	0	0	10
cSH	654	501	1472	1700	1700	1356	1700	1700
Volume to Capacity	0.17	0.23	0.03	0.07	0.06	0.00	0.04	0.03
Queue Length 95th (m)	4.8	7.0	0.8	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	11.6	14.3	7.5	0.0	0.0	7.7	0.0	0.0
Lane LOS	B	B	A			A		
Approach Delay (s/veh)	11.6	14.3	1.3			0.1		
Approach LOS	B	B						

Intersection Summary				
Average Delay	5.4			
Intersection Capacity Utilization	28.8%	ICU Level of Service		A
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	15	18	4	18	16	44	372	1	7	248	20
Future Volume (vph)	34	15	18	4	18	16	44	372	1	7	248	20
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		0.964			0.943						0.990	
Flt Protected		0.975			0.995			0.995			0.999	
Satd. Flow (prot)	0	1681	0	0	1738	0	0	1810	0	0	1779	0
Flt Permitted		0.975			0.995			0.995			0.999	
Satd. Flow (perm)	0	1681	0	0	1738	0	0	1810	0	0	1779	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		140.8			108.7			299.9			226.9	
Travel Time (s)		10.1			7.8			21.6			16.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	6%	7%	6%	0%	0%	6%	0%	5%	0%	0%	5%	15%
Adj. Flow (vph)	37	16	19	4	19	17	47	400	1	8	267	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	72	0	0	40	0	0	448	0	0	297	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		Stop			Stop			Free			Free	

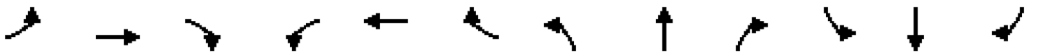
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 57.2%		ICU Level of Service B	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	15	18	4	18	16	44	372	1	7	248	20
Future Volume (Veh/h)	34	15	18	4	18	16	44	372	1	7	248	20
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	37	16	19	4	19	17	47	400	1	8	267	22
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	815	789	278	816	800	401	289			401		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	815	789	278	816	800	401	289			401		
tC, single (s)	7.2	6.6	6.3	7.1	6.5	6.3	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	86	95	97	99	94	97	96			99		
cM capacity (veh/h)	262	303	751	270	307	641	1284			1169		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	72	40	448	297
Volume Left	37	4	47	8
Volume Right	19	17	1	22
cSH	328	387	1284	1169
Volume to Capacity	0.22	0.10	0.04	0.01
Queue Length 95th (m)	6.6	2.7	0.9	0.2
Control Delay (s/veh)	19.0	15.4	1.2	0.3
Lane LOS	C	C	A	A
Approach Delay (s/veh)	19.0	15.4	1.2	0.3
Approach LOS	C	C		

Intersection Summary				
Average Delay	3.0			
Intersection Capacity Utilization	57.2%	ICU Level of Service	B	
Analysis Period (min)	15			

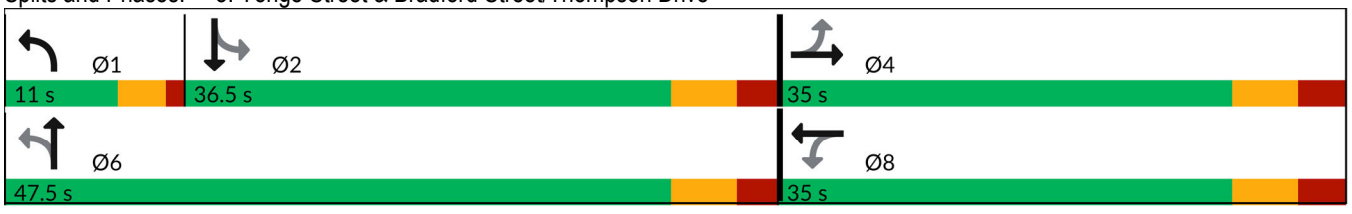


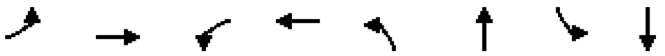
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	19	104	16	20	23	252	242	20	20	160	97
Future Volume (vph)	83	19	104	16	20	23	252	242	20	20	160	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	30.0		0.0	50.0		0.0	55.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	45.0			35.0			55.0			70.0		
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	0.98		1.00	0.99		1.00				0.99	
Frt		0.873			0.920			0.988			0.943	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1520	0	1687	1725	0	1770	1843	0	1805	1750	0
Flt Permitted	0.726			0.673			0.522			0.587		
Satd. Flow (perm)	1320	1520	0	1190	1725	0	969	1843	0	1115	1750	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		112			25			7			41	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		120.0			121.3			155.0			151.3	
Travel Time (s)		8.6			8.7			11.2			10.9	
Confl. Peds. (#/hr)	3		3	3		3	4					4
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	6%	7%	7%	0%	0%	2%	2%	0%	0%	1%	2%
Adj. Flow (vph)	89	20	112	17	22	25	271	260	22	22	172	104
Shared Lane Traffic (%)												
Lane Group Flow (vph)	89	132	0	17	47	0	271	282	0	22	276	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		pm+pt	NA		Perm	NA	
Protected Phases		4			8		1	6			2	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		1	6		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	30.0		30.0	30.0	
Minimum Split (s)	32.0	32.0		32.0	32.0		11.0	36.5		36.5	36.5	
Total Split (s)	35.0	35.0		35.0	35.0		11.0	47.5		36.5	36.5	
Total Split (%)	42.4%	42.4%		42.4%	42.4%		13.3%	57.6%		44.2%	44.2%	
Maximum Green (s)	28.0	28.0		28.0	28.0		7.0	41.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	4.0		4.0	4.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		1.0	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		4.0	6.5		6.5	6.5	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	0.2		0.2	0.2	
Recall Mode	None	None		None	None		None	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Don't Walk (s)	18.0	18.0		18.0	18.0			19.0		19.0	19.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)	11.1	11.1		11.1	11.1		44.4	43.5		30.7	30.7	
Actuated g/C Ratio	0.18	0.18		0.18	0.18		0.71	0.70		0.49	0.49	
v/c Ratio	0.38	0.36		0.08	0.14		0.35	0.22		0.04	0.31	
Control Delay (s/veh)	29.5	10.7		23.8	15.3		5.7	5.8		10.8	10.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	29.5	10.7		23.8	15.3		5.7	5.8		10.8	10.8	
LOS	C	B		C	B		A	A		B	B	
Approach Delay (s/veh)		18.3			17.5			5.7			10.8	
Approach LOS		B			B			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 82.5			
Actuated Cycle Length: 62.3			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.38			
Intersection Signal Delay (s/veh): 10.2		Intersection LOS: B	
Intersection Capacity Utilization 80.7%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 8: Yonge Street & Bradford Street/Thompson Drive





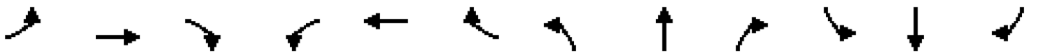
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	89	132	17	47	271	282	22	276
v/c Ratio	0.38	0.36	0.08	0.14	0.35	0.22	0.04	0.31
Control Delay (s/veh)	29.5	10.7	23.8	15.3	5.7	5.8	10.8	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	29.5	10.7	23.8	15.3	5.7	5.8	10.8	10.8
Queue Length 50th (m)	10.3	2.2	1.9	2.4	10.6	12.6	1.4	17.2
Queue Length 95th (m)	22.8	15.3	6.7	10.3	23.2	26.4	5.4	35.9
Internal Link Dist (m)		96.0		97.3		131.0		127.3
Turn Bay Length (m)	40.0		30.0		50.0		55.0	
Base Capacity (vph)	602	754	542	799	782	1290	549	883
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	0.15	0.18	0.03	0.06	0.35	0.22	0.04	0.31

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	19	104	16	20	23	252	242	20	20	160	97
Future Volume (vph)	83	19	104	16	20	23	252	242	20	20	160	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		4.0	6.5		6.5	6.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.98		1.00	0.99		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.87		1.00	0.92		1.00	0.99		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1729	1521		1682	1726		1767	1844		1805	1752	
Flt Permitted	0.73	1.00		0.67	1.00		0.52	1.00		0.59	1.00	
Satd. Flow (perm)	1322	1521		1190	1726		971	1844		1115	1752	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	89	20	112	17	22	25	271	260	22	22	172	104
RTOR Reduction (vph)	0	97	0	0	22	0	0	2	0	0	21	0
Lane Group Flow (vph)	89	35	0	17	25	0	271	280	0	22	255	0
Confl. Peds. (#/hr)	3		3	3		3	4					4
Heavy Vehicles (%)	4%	6%	7%	7%	0%	0%	2%	2%	0%	0%	1%	2%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		1	6			2	
Permitted Phases	4			8			6			2		
Actuated Green, G (s)	8.5	8.5		8.5	8.5		41.9	41.9		30.8	30.8	
Effective Green, g (s)	8.5	8.5		8.5	8.5		41.9	41.9		30.8	30.8	
Actuated g/C Ratio	0.13	0.13		0.13	0.13		0.66	0.66		0.48	0.48	
Clearance Time (s)	7.0	7.0		7.0	7.0		4.0	6.5		6.5	6.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	0.2		0.2	0.2	
Lane Grp Cap (vph)	175	202		158	229		725	1209		537	844	
v/s Ratio Prot		0.02			0.01		c0.04	0.15			0.15	
v/s Ratio Perm	c0.07			0.01			c0.20			0.02		
v/c Ratio	0.51	0.17		0.11	0.11		0.37	0.23		0.04	0.30	
Uniform Delay, d1	25.8	24.6		24.4	24.4		4.6	4.5		8.7	10.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.3	0.4		0.3	0.2		0.3	0.4		0.1	0.9	
Delay (s)	28.1	25.0		24.7	24.6		5.0	4.9		8.9	11.0	
Level of Service	C	C		C	C		A	A		A	B	
Approach Delay (s/veh)		26.2			24.6			4.9			10.8	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	63.9	Sum of lost time (s)	17.5
Intersection Capacity Utilization	80.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

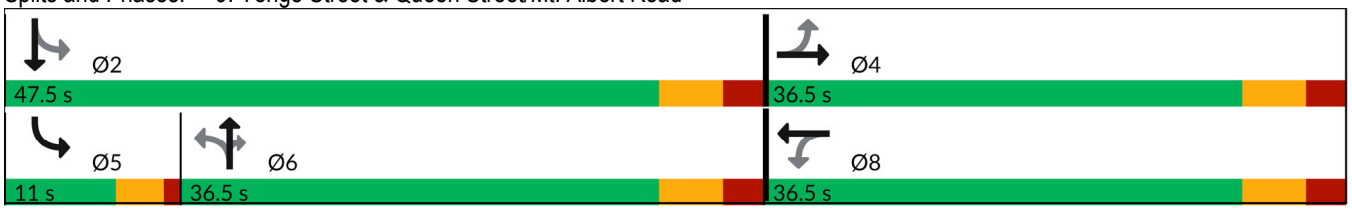


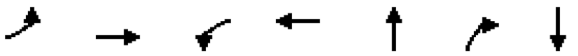
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	16	17	107	21	208	12	227	115	106	85	5
Future Volume (vph)	14	16	17	107	21	208	12	227	115	106	85	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	7.5		0.0	50.0		0.0	0.0		20.0	0.0		0.0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (m)	15.0			35.0			7.5			7.5		
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									0.96		0.99	
Frt		0.923			0.864				0.850		0.997	
Flt Protected	0.950			0.950				0.997			0.974	
Satd. Flow (prot)	1805	1701	0	1752	1570	0	0	1778	1509	0	1745	0
Flt Permitted	0.508			0.734				0.982			0.734	
Satd. Flow (perm)	965	1701	0	1354	1570	0	0	1751	1442	0	1304	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			221				112		2	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		129.2			223.2			177.8			162.6	
Travel Time (s)		9.3			16.1			12.8			11.7	
Confl. Peds. (#/hr)									13	13		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	6%	3%	20%	3%	17%	6%	7%	5%	7%	0%
Adj. Flow (vph)	15	17	18	114	22	221	13	241	122	113	90	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	15	35	0	114	243	0	0	254	122	0	208	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			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
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	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	
Detector 1 Position(m)	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	0.6		2.0	0.6	2.0	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	
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	
Detector 1 Queue (s)	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	
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	pm+pt	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4			8			6		6	2		
Detector Phase	4	4		8	8		6	6	6	5	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		30.0	30.0	30.0	7.0	30.0	
Minimum Split (s)	29.5	29.5		29.5	29.5		36.5	36.5	36.5	11.0	36.5	
Total Split (s)	36.5	36.5		36.5	36.5		36.5	36.5	36.5	11.0	47.5	
Total Split (%)	43.5%	43.5%		43.5%	43.5%		43.5%	43.5%	43.5%	13.1%	56.5%	
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0	30.0	7.0	41.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5	2.5	1.0	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5			6.5	6.5		6.5	
Lead/Lag							Lag	Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		0.2	0.2	0.2	3.0	0.2	
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0		7.0	
Flash Don't Walk (s)	16.0	16.0		16.0	16.0		15.0	15.0	15.0		15.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0		0	
Act Effct Green (s)	11.7	11.7		11.7	11.7			30.0	30.0		41.0	
Actuated g/C Ratio	0.18	0.18		0.18	0.18			0.46	0.46		0.62	
v/c Ratio	0.09	0.11		0.48	0.53			0.32	0.17		0.25	
Control Delay (s/veh)	23.4	15.4		31.3	9.6			13.2	3.8		6.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay (s/veh)	23.4	15.4		31.3	9.6			13.2	3.8		6.5	
LOS	C	B		C	A			B	A		A	
Approach Delay (s/veh)		17.8			16.5			10.2			6.5	
Approach LOS		B			B			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 84			
Actuated Cycle Length: 65.7			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay (s/veh): 12.1		Intersection LOS: B	
Intersection Capacity Utilization 80.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 9: Yonge Street & Queen Street/Mt. Albert Road





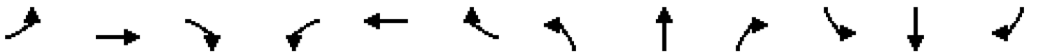
Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	15	35	114	243	254	122	208
v/c Ratio	0.09	0.11	0.48	0.53	0.32	0.17	0.25
Control Delay (s/veh)	23.4	15.4	31.3	9.6	13.2	3.8	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	23.4	15.4	31.3	9.6	13.2	3.8	6.5
Queue Length 50th (m)	1.6	1.8	13.3	2.4	18.9	0.6	9.1
Queue Length 95th (m)	6.2	8.6	27.4	19.6	38.5	9.4	21.1
Internal Link Dist (m)		105.2		199.2	153.8		138.6
Turn Bay Length (m)	7.5		50.0			20.0	
Base Capacity (vph)	441	786	618	837	799	719	845
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.04	0.18	0.29	0.32	0.17	0.25

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	16	17	107	21	208	12	227	115	106	85	5
Future Volume (vph)	14	16	17	107	21	208	12	227	115	106	85	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5		6.5	6.5			6.5	6.5		6.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.96		1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Frt	1.00	0.92		1.00	0.86			1.00	0.85		1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		0.97	
Satd. Flow (prot)	1805	1701		1752	1570			1778	1450		1735	
Flt Permitted	0.51	1.00		0.73	1.00			0.98	1.00		0.73	
Satd. Flow (perm)	965	1701		1355	1570			1751	1450		1309	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	15	17	18	114	22	221	13	241	122	113	90	5
RTOR Reduction (vph)	0	15	0	0	182	0	0	0	61	0	1	0
Lane Group Flow (vph)	15	20	0	114	61	0	0	254	61	0	207	0
Confl. Peds. (#/hr)									13	13		
Heavy Vehicles (%)	0%	0%	6%	3%	20%	3%	17%	6%	7%	5%	7%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	pm+pt	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4			8			6		6	2		
Actuated Green, G (s)	11.7	11.7		11.7	11.7			30.0	30.0		41.0	
Effective Green, g (s)	11.7	11.7		11.7	11.7			30.0	30.0		41.0	
Actuated g/C Ratio	0.18	0.18		0.18	0.18			0.46	0.46		0.62	
Clearance Time (s)	6.5	6.5		6.5	6.5			6.5	6.5		6.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			0.2	0.2		0.2	
Lane Grp Cap (vph)	171	302		241	279			799	662		862	
v/s Ratio Prot		0.01			0.04						c0.03	
v/s Ratio Perm	0.02			c0.08				c0.15	0.04		0.12	
v/c Ratio	0.09	0.07		0.47	0.22			0.32	0.09		0.24	
Uniform Delay, d1	22.5	22.5		24.2	23.1			11.3	10.1		5.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.2	0.1		1.5	0.4			1.0	0.3		0.7	
Delay (s)	22.8	22.6		25.7	23.5			12.4	10.4		6.1	
Level of Service	C	C		C	C			B	B		A	
Approach Delay (s/veh)		22.6			24.2			11.7			6.1	
Approach LOS		C			C			B			A	

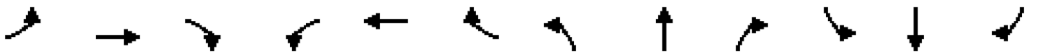
Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	65.7	Sum of lost time (s)	17.0
Intersection Capacity Utilization	80.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	9	0	0	0	10	1511	0	0	1105	3
Future Volume (vph)	4	0	9	0	0	0	10	1511	0	0	1105	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	0.0		0.0	55.0		20.0	35.0		35.0
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (m)	55.0			7.5			75.0			55.0		
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
Frt		0.850										0.850
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1805	1615	0	0	1900	0	1805	1881	1900	1900	1881	1615
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1805	1615	0	0	1900	0	1805	1881	1900	1900	1881	1615
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		139.3			169.5			220.7			153.1	
Travel Time (s)		10.0			12.2			15.9			11.0	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	4	0	9	0	0	0	10	1574	0	0	1151	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	9	0	0	0	0	10	1574	0	0	1151	3
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
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 89.5%		ICU Level of Service E	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	0	9	0	0	0	10	1511	0	0	1105	3
Future Volume (Veh/h)	4	0	9	0	0	0	10	1511	0	0	1105	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	4	0	9	0	0	0	10	1574	0	0	1151	3
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	2745	2745	1151	2754	2748	1574	1154			1574		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2745	2745	1151	2754	2748	1574	1154			1574		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	69	100	96	100	100	100	98			100		
cM capacity (veh/h)	13	20	243	12	20	137	613			424		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	4	9	0	10	1574	0	0	1151	3
Volume Left	4	0	0	10	0	0	0	0	0
Volume Right	0	9	0	0	0	0	0	0	3
cSH	13	243	1700	613	1700	1700	1700	1700	1700
Volume to Capacity	0.31	0.04	0.00	0.02	0.93	0.00	0.00	0.68	0.00
Queue Length 95th (m)	6.3	0.9	0.0	0.4	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	377.2	20.4	0.0	11.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	C	A	B					
Approach Delay (s/veh)	130.2		0.0	0.1			0.0		
Approach LOS	F		A						

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	89.5%	ICU Level of Service	E	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	79	5	304	19	13	9	1364	524	22	910	5
Future Volume (vph)	7	79	5	304	19	13	9	1364	524	22	910	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		0.0	85.0		60.0	120.0		80.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	7.5			7.5			65.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor							1.00					0.98
Frt		0.993			0.995				0.850			0.850
Flt Protected		0.996			0.957		0.950			0.950		
Satd. Flow (prot)	0	1863	0	0	1787	0	1805	3574	1599	1805	3574	1615
Flt Permitted		0.967			0.711		0.238			0.099		
Satd. Flow (perm)	0	1809	0	0	1328	0	452	3574	1599	188	3574	1579
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			2				388			41
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		166.2			122.5			217.1			193.9	
Travel Time (s)		12.0			8.8			15.6			14.0	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	0%	1%	0%	8%	0%	1%	1%	0%	1%	0%
Adj. Flow (vph)	7	84	5	323	20	14	10	1451	557	23	968	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	96	0	0	357	0	10	1451	557	23	968	5
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			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	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
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	0.6		2.0	0.6	2.0	2.0	0.6	2.0
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	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6		6	2		2
Detector Phase	4	4		8	8		6	6	6	2	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	38.5	38.5		38.5	38.5		32.5	32.5	32.5	32.5	32.5	32.5
Total Split (s)	50.0	50.0		50.0	50.0		70.0	70.0	70.0	70.0	70.0	70.0
Total Split (%)	41.7%	41.7%		41.7%	41.7%		58.3%	58.3%	58.3%	58.3%	58.3%	58.3%
Maximum Green (s)	42.5	42.5		42.5	42.5		62.5	62.5	62.5	62.5	62.5	62.5
Yellow Time (s)	4.5	4.5		4.5	4.5		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.0	3.0		3.0	3.0		2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.5			7.5		7.5	7.5	7.5	7.5	7.5	7.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0	6.0	6.0	6.0	6.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)	24.0	24.0		24.0	24.0		18.0	18.0	18.0	18.0	18.0	18.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)		37.3			37.3		67.7	67.7	67.7	67.7	67.7	67.7
Actuated g/C Ratio		0.31			0.31		0.56	0.56	0.56	0.56	0.56	0.56
v/c Ratio		0.17			0.86		0.04	0.72	0.52	0.22	0.48	0.01
Control Delay (s/veh)		28.3			59.1		14.6	22.8	6.8	22.0	17.4	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		28.3			59.1		14.6	22.8	6.8	22.0	17.4	0.0
LOS		C			E		B	C	A	C	B	A
Approach Delay (s/veh)		28.3			59.1			18.3			17.5	
Approach LOS		C			E			B			B	

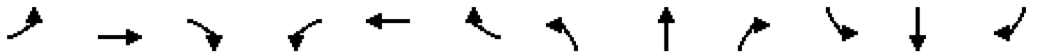
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 70 (58%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay (s/veh): 22.6		Intersection LOS: C	
Intersection Capacity Utilization 76.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 11: Yonge Street /Highway 11 & Morning Sideroad/Holland Landing Road

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	96	357	10	1451	557	23	968	5
v/c Ratio	0.17	0.86	0.04	0.72	0.52	0.22	0.48	0.01
Control Delay (s/veh)	28.3	59.1	14.6	22.8	6.8	22.0	17.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.3	59.1	14.6	22.8	6.8	22.0	17.4	0.0
Queue Length 50th (m)	16.3	80.6	1.1	138.2	20.3	2.8	75.0	0.0
Queue Length 95th (m)	28.5	#117.6	4.2	177.6	52.6	9.8	98.6	0.0
Internal Link Dist (m)	142.2	98.5		193.1			169.9	
Turn Bay Length (m)			85.0		60.0	120.0		80.0
Base Capacity (vph)	642	471	255	2017	1071	105	2017	909
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	0.15	0.76	0.04	0.72	0.52	0.22	0.48	0.01

Intersection Summary

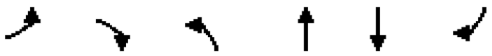
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	79	5	304	19	13	9	1364	524	22	910	5
Future Volume (vph)	7	79	5	304	19	13	9	1364	524	22	910	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.5			7.5		7.5	7.5	7.5	7.5	7.5	7.5
Lane Util. Factor		1.00			1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.99			0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			0.96		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1863			1786		1804	3574	1599	1805	3574	1579
Flt Permitted		0.97			0.71		0.24	1.00	1.00	0.10	1.00	1.00
Satd. Flow (perm)		1808			1327		453	3574	1599	187	3574	1579
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	7	84	5	323	20	14	10	1451	557	23	968	5
RTOR Reduction (vph)	0	2	0	0	1	0	0	0	169	0	0	2
Lane Group Flow (vph)	0	94	0	0	356	0	10	1451	388	23	968	3
Confl. Peds. (#/hr)							1					1
Heavy Vehicles (%)	0%	1%	0%	1%	0%	8%	0%	1%	1%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6		6	2		2
Actuated Green, G (s)		37.3			37.3		67.7	67.7	67.7	67.7	67.7	67.7
Effective Green, g (s)		37.3			37.3		67.7	67.7	67.7	67.7	67.7	67.7
Actuated g/C Ratio		0.31			0.31		0.56	0.56	0.56	0.56	0.56	0.56
Clearance Time (s)		7.5			7.5		7.5	7.5	7.5	7.5	7.5	7.5
Vehicle Extension (s)		3.0			3.0		6.0	6.0	6.0	6.0	6.0	6.0
Lane Grp Cap (vph)		561			412		255	2016	902	105	2016	890
v/s Ratio Prot								c0.41			0.27	
v/s Ratio Perm		0.05			c0.27		0.02		0.24	0.12		0.00
v/c Ratio		0.17			0.86		0.04	0.72	0.43	0.22	0.48	0.00
Uniform Delay, d1		30.1			38.9		11.7	19.2	15.0	13.0	15.6	11.4
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.1			16.8		0.3	2.3	1.5	4.7	0.8	0.0
Delay (s)		30.2			55.7		11.9	21.4	16.5	17.7	16.5	11.4
Level of Service		C			E		B	C	B	B	B	B
Approach Delay (s/veh)		30.2			55.7			20.0			16.5	
Approach LOS		C			E			C			B	

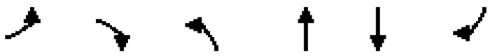
Intersection Summary			
HCM 2000 Control Delay (s/veh)	23.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	107	86	325	210	8
Future Volume (vph)	10	107	86	325	210	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0	35.0			0.0
Storage Lanes	1	0	1			0
Taper Length (m)	7.5		65.0			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor						
Frt	0.877				0.994	
Flt Protected	0.996		0.950			
Satd. Flow (prot)	1660	0	1805	3610	3588	0
Flt Permitted	0.996		0.950			
Satd. Flow (perm)	1660	0	1805	3610	3588	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	381.8			452.7	370.1	
Travel Time (s)	27.5			32.6	26.6	
Confl. Peds. (#/hr)			1			1
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)	11	116	93	353	228	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	127	0	93	353	237	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	

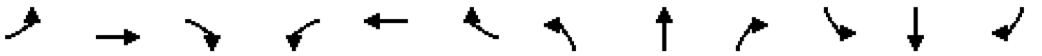
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.2%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	107	86	325	210	8
Future Volume (Veh/h)	10	107	86	325	210	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	116	93	353	228	9
Pedestrians	1					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	596	120	238			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	596	120	238			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	87	93			
cM capacity (veh/h)	409	915	1340			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	127	93	177	177	152	85
Volume Left	11	93	0	0	0	0
Volume Right	116	0	0	0	0	9
cSH	827	1340	1700	1700	1700	1700
Volume to Capacity	0.15	0.07	0.10	0.10	0.09	0.05
Queue Length 95th (m)	4.3	1.8	0.0	0.0	0.0	0.0
Control Delay (s/veh)	10.1	7.9	0.0	0.0	0.0	0.0
Lane LOS	B	A				
Approach Delay (s/veh)	10.1	1.6			0.0	
Approach LOS	B					

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	28.2%	ICU Level of Service	A
Analysis Period (min)	15		

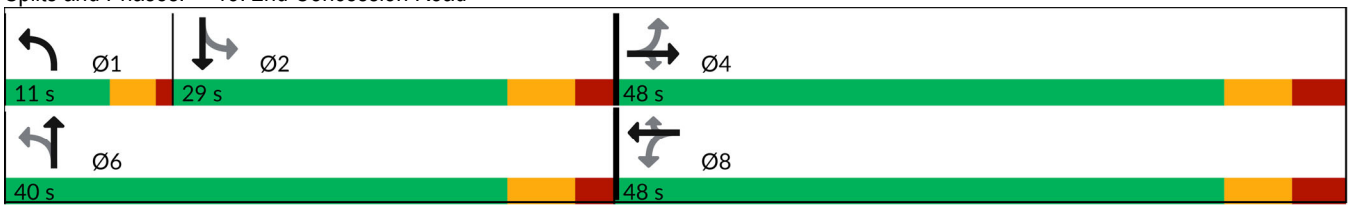


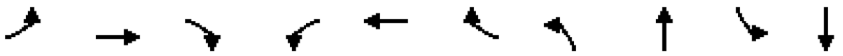
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	176	113	98	395	59	143	333	138	33	222	29
Future Volume (vph)	41	176	113	98	395	59	143	333	138	33	222	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	100.0		25.0	90.0		20.0	0.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	50.0			60.0			7.5			80.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.956			0.983	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1845	1583	1805	1881	1568	1787	3427	0	1752	3517	0
Flt Permitted	0.403			0.639			0.496			0.466		
Satd. Flow (perm)	751	1845	1583	1214	1881	1568	933	3427	0	860	3517	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			122			99		82			15	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		436.4			393.7			201.4			452.7	
Travel Time (s)		31.4			28.3			14.5			32.6	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	3%	2%	0%	1%	3%	1%	1%	0%	3%	1%	0%
Adj. Flow (vph)	44	189	122	105	425	63	154	358	148	35	239	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	44	189	122	105	425	63	154	506	0	35	270	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	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	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases		4			8		1	6			2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	6			2		
Detector Phase	4	4	4	8	8	8	1	6		2	2	
Switch Phase												
Minimum Initial (s)	30.0	30.0	30.0	30.0	30.0	30.0	7.0	22.0		22.0	22.0	
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	11.0	29.0		29.0	29.0	
Total Split (s)	48.0	48.0	48.0	48.0	48.0	48.0	11.0	40.0		29.0	29.0	
Total Split (%)	54.5%	54.5%	54.5%	54.5%	54.5%	54.5%	12.5%	45.5%		33.0%	33.0%	
Maximum Green (s)	40.0	40.0	40.0	40.0	40.0	40.0	7.0	33.0		22.0	22.0	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	3.0	4.5		4.5	4.5	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	1.0	2.5		2.5	2.5	
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)	8.0	8.0	8.0	8.0	8.0	8.0	4.0	7.0		7.0	7.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	6.0	6.0	6.0	6.0	6.0	6.0	3.0	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None	None	None	Max		Max	Max	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0		7.0	7.0	
Flash Don't Walk (s)	21.0	21.0	21.0	21.0	21.0	21.0		15.0		15.0	15.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0		0	0	
Act Effct Green (s)	31.7	31.7	31.7	31.7	31.7	31.7	36.0	33.0		22.0	22.0	
Actuated g/C Ratio	0.40	0.40	0.40	0.40	0.40	0.40	0.45	0.41		0.28	0.28	
v/c Ratio	0.15	0.26	0.17	0.22	0.57	0.09	0.31	0.34		0.15	0.28	
Control Delay (s/veh)	16.6	17.1	3.6	17.1	22.1	1.5	15.7	14.4		25.0	22.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	16.6	17.1	3.6	17.1	22.1	1.5	15.7	14.4		25.0	22.8	
LOS	B	B	A	B	C	A	B	B		C	C	
Approach Delay (s/veh)		12.4			19.0			14.7			23.0	
Approach LOS		B			B			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 88			
Actuated Cycle Length: 79.8			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay (s/veh): 16.9		Intersection LOS: B	
Intersection Capacity Utilization 111.7%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 13: 2nd Concession Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	44	189	122	105	425	63	154	506	35	270
v/c Ratio	0.15	0.26	0.17	0.22	0.57	0.09	0.31	0.34	0.15	0.28
Control Delay (s/veh)	16.6	17.1	3.6	17.1	22.1	1.5	15.7	14.4	25.0	22.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.6	17.1	3.6	17.1	22.1	1.5	15.7	14.4	25.0	22.8
Queue Length 50th (m)	4.4	19.6	0.0	10.7	51.3	0.0	13.5	22.1	4.1	16.0
Queue Length 95th (m)	11.2	33.7	9.2	21.4	78.1	3.2	29.9	40.1	12.8	29.7
Internal Link Dist (m)		412.4			369.7			177.4		428.7
Turn Bay Length (m)	100.0		25.0	90.0		20.0			60.0	
Base Capacity (vph)	377	926	855	609	943	836	496	1467	237	981
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	0.12	0.20	0.14	0.17	0.45	0.08	0.31	0.34	0.15	0.28

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	176	113	98	395	59	143	333	138	33	222	29
Future Volume (vph)	41	176	113	98	395	59	143	333	138	33	222	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0	8.0	8.0	8.0	8.0	4.0	7.0		7.0	7.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1845	1583	1805	1881	1568	1787	3427		1752	3517	
Flt Permitted	0.40	1.00	1.00	0.64	1.00	1.00	0.50	1.00		0.47	1.00	
Satd. Flow (perm)	751	1845	1583	1213	1881	1568	933	3427		859	3517	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	44	189	122	105	425	63	154	358	148	35	239	31
RTOR Reduction (vph)	0	0	73	0	0	38	0	48	0	0	11	0
Lane Group Flow (vph)	44	189	49	105	425	25	154	458	0	35	259	0
Heavy Vehicles (%)	2%	3%	2%	0%	1%	3%	1%	1%	0%	3%	1%	0%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases		4			8		1	6			2	
Permitted Phases	4		4	8		8	6			2		
Actuated Green, G (s)	31.8	31.8	31.8	31.8	31.8	31.8	33.1	33.1		22.1	22.1	
Effective Green, g (s)	31.8	31.8	31.8	31.8	31.8	31.8	33.1	33.1		22.1	22.1	
Actuated g/C Ratio	0.40	0.40	0.40	0.40	0.40	0.40	0.41	0.41		0.28	0.28	
Clearance Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	4.0	7.0		7.0	7.0	
Vehicle Extension (s)	6.0	6.0	6.0	6.0	6.0	6.0	3.0	0.2		0.2	0.2	
Lane Grp Cap (vph)	298	734	630	482	748	624	461	1419		237	972	
v/s Ratio Prot		0.10			c0.23		0.03	c0.13			0.07	
v/s Ratio Perm	0.06		0.03	0.09		0.02	c0.11			0.04		
v/c Ratio	0.15	0.26	0.08	0.22	0.57	0.04	0.33	0.32		0.15	0.27	
Uniform Delay, d1	15.4	16.1	14.9	15.9	18.7	14.7	15.1	15.8		21.8	22.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.6	0.5	0.1	0.6	2.1	0.1	0.4	0.6		1.3	0.7	
Delay (s)	16.0	16.7	15.1	16.5	20.8	14.8	15.5	16.4		23.1	23.2	
Level of Service	B	B	B	B	C	B	B	B		C	C	
Approach Delay (s/veh)		16.0			19.4			16.2			23.2	
Approach LOS		B			B			B			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	79.9	Sum of lost time (s)	19.0
Intersection Capacity Utilization	111.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

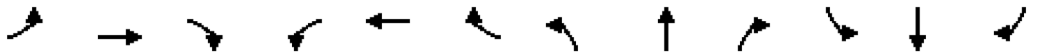
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	275	52	35	523	38	50
Future Volume (vph)	275	52	35	523	38	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		45.0	45.0		0.0	0.0
Storage Lanes		1	1		1	1
Taper Length (m)			25.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1881	1615	1805	1881	1752	1615
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1881	1615	1805	1881	1752	1615
Link Speed (k/h)	50			50	50	
Link Distance (m)	447.7			351.6	104.8	
Travel Time (s)	32.2			25.3	7.5	
Confl. Peds. (#/hr)		1	1			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	0%	0%	1%	3%	0%
Adj. Flow (vph)	289	55	37	551	40	53
Shared Lane Traffic (%)						
Lane Group Flow (vph)	289	55	37	551	40	53
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				Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 37.5%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	275	52	35	523	38	50
Future Volume (Veh/h)	275	52	35	523	38	50
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	289	55	37	551	40	53
Pedestrians					1	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			345		915	290
vC1, stage 1 conf vol					290	
vC2, stage 2 conf vol					625	
vCu, unblocked vol			345		915	290
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			97		92	93
cM capacity (veh/h)			1224		474	753

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	289	55	37	551	40	53
Volume Left	0	0	37	0	40	0
Volume Right	0	55	0	0	0	53
cSH	1700	1700	1224	1700	474	753
Volume to Capacity	0.17	0.03	0.03	0.32	0.08	0.07
Queue Length 95th (m)	0.0	0.0	0.7	0.0	2.2	1.8
Control Delay (s/veh)	0.0	0.0	8.0	0.0	13.3	10.1
Lane LOS			A		B	B
Approach Delay (s/veh)	0.0		0.5		11.5	
Approach LOS					B	

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	37.5%	ICU Level of Service	A
Analysis Period (min)	15		

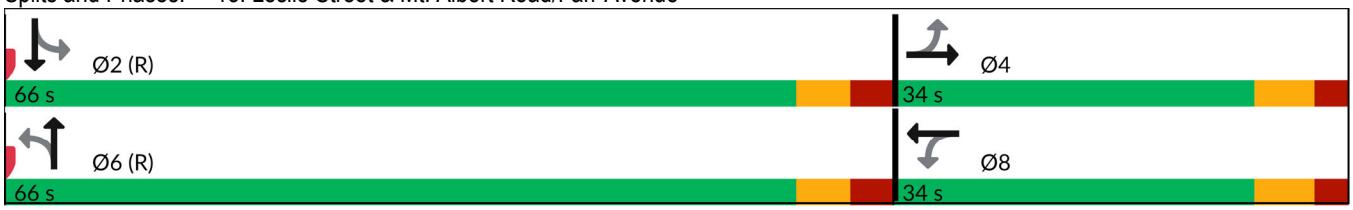


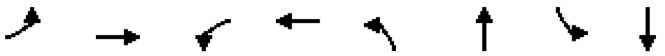
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	111	72	148	24	62	47	438	334	19	40	153	59
Future Volume (vph)	111	72	148	24	62	47	438	334	19	40	153	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		0.0	15.0		0.0	30.0		0.0	20.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	80.0			15.0			40.0			65.0		
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		0.98		0.99								
Frt		0.899			0.936			0.992			0.958	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1615	0	1805	1778	0	1787	1850	0	1805	1782	0
Flt Permitted	0.684			0.392			0.621			0.539		
Satd. Flow (perm)	1274	1615	0	738	1778	0	1168	1850	0	1024	1782	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		101			37			5			34	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		375.8			121.0			404.2			164.8	
Travel Time (s)		27.1			8.7			29.1			11.9	
Confl. Peds. (#/hr)			6	6								
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	0%	5%	0%	0%	0%	1%	2%	0%	0%	3%	0%
Adj. Flow (vph)	116	75	154	25	65	49	456	348	20	42	159	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	229	0	25	114	0	456	368	0	42	220	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			6			2	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		40.0	40.0		40.0	40.0	
Minimum Split (s)	28.0	28.0		28.0	28.0		47.0	47.0		47.0	47.0	
Total Split (s)	34.0	34.0		34.0	34.0		66.0	66.0		66.0	66.0	
Total Split (%)	34.0%	34.0%		34.0%	34.0%		66.0%	66.0%		66.0%	66.0%	
Maximum Green (s)	27.0	27.0		27.0	27.0		59.0	59.0		59.0	59.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		0.2	0.2		0.2	0.2	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	14.0	14.0		14.0	14.0		16.0	16.0		16.0	16.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	14.9	14.9		14.9	14.9		71.1	71.1		71.1	71.1	
Actuated g/C Ratio	0.15	0.15		0.15	0.15		0.71	0.71		0.71	0.71	
v/c Ratio	0.61	0.70		0.23	0.39		0.55	0.28		0.06	0.17	
Control Delay (s/veh)	52.8	33.5		40.5	28.6		6.7	2.7		5.7	4.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	52.8	33.5		40.5	28.6		6.7	2.7		5.7	4.9	
LOS	D	C		D	C		A	A		A	A	
Approach Delay (s/veh)		40.0			30.7			4.9			5.1	
Approach LOS		D			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 5 (5%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay (s/veh): 14.9		Intersection LOS: B	
Intersection Capacity Utilization 104.1%		ICU Level of Service G	
Analysis Period (min) 15			

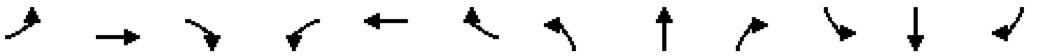
Splits and Phases: 15: Leslie Street & Mt. Albert Road/Farr Avenue





Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	116	229	25	114	456	368	42	220
v/c Ratio	0.61	0.70	0.23	0.39	0.55	0.28	0.06	0.17
Control Delay (s/veh)	52.8	33.5	40.5	28.6	6.7	2.7	5.7	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	52.8	33.5	40.5	28.6	6.7	2.7	5.7	4.9
Queue Length 50th (m)	22.6	24.8	4.6	14.3	6.6	4.8	2.2	10.4
Queue Length 95th (m)	38.3	47.2	11.9	28.6	86.6	21.4	6.8	23.1
Internal Link Dist (m)		351.8		97.0		380.2		140.8
Turn Bay Length (m)	40.0		15.0		30.0		20.0	
Base Capacity (vph)	343	509	199	507	830	1316	727	1276
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	0.34	0.45	0.13	0.22	0.55	0.28	0.06	0.17

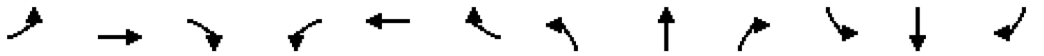
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	111	72	148	24	62	47	438	334	19	40	153	59
Future Volume (vph)	111	72	148	24	62	47	438	334	19	40	153	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.98		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		0.99	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.90		1.00	0.94		1.00	0.99		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1615		1789	1778		1787	1850		1805	1782	
Flt Permitted	0.68	1.00		0.39	1.00		0.62	1.00		0.54	1.00	
Satd. Flow (perm)	1273	1615		739	1778		1168	1850		1024	1782	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	116	75	154	25	65	49	456	348	20	42	159	61
RTOR Reduction (vph)	0	86	0	0	31	0	0	1	0	0	10	0
Lane Group Flow (vph)	116	143	0	25	83	0	456	367	0	42	210	0
Confl. Peds. (#/hr)			6	6								
Heavy Vehicles (%)	2%	0%	5%	0%	0%	0%	1%	2%	0%	0%	3%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		
Actuated Green, G (s)	14.9	14.9		14.9	14.9		71.1	71.1		71.1	71.1	
Effective Green, g (s)	14.9	14.9		14.9	14.9		71.1	71.1		71.1	71.1	
Actuated g/C Ratio	0.15	0.15		0.15	0.15		0.71	0.71		0.71	0.71	
Clearance Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		0.2	0.2		0.2	0.2	
Lane Grp Cap (vph)	189	240		110	264		830	1315		728	1267	
v/s Ratio Prot		0.09			0.05			0.20			0.12	
v/s Ratio Perm	c0.09			0.03			c0.39			0.04		
v/c Ratio	0.61	0.60		0.23	0.31		0.55	0.28		0.06	0.17	
Uniform Delay, d1	39.9	39.7		37.5	38.0		6.9	5.2		4.4	4.7	
Progression Factor	1.00	1.00		1.00	1.00		0.54	0.38		1.00	1.00	
Incremental Delay, d2	5.8	3.9		1.1	0.7		2.3	0.5		0.2	0.3	
Delay (s)	45.7	43.7		38.5	38.7		5.9	2.5		4.5	5.0	
Level of Service	D	D		D	D		A	A		A	A	
Approach Delay (s/veh)		44.3			38.6			4.4			4.9	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	16.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	104.1%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

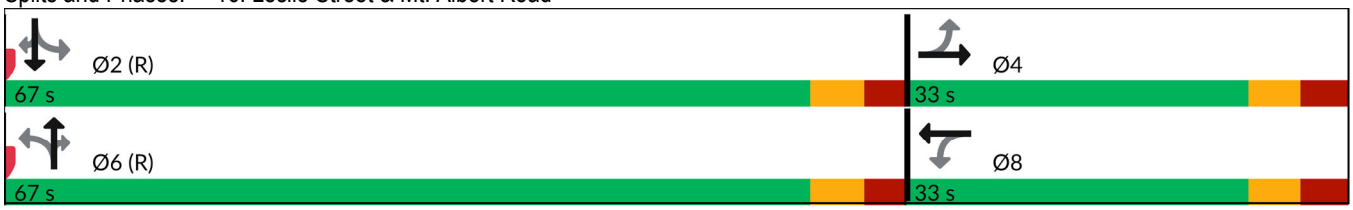


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	12	23	63	3	163	10	719	76	95	284	1
Future Volume (vph)	15	12	23	63	3	163	10	719	76	95	284	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	30.0		0.0	40.0		10.0	25.0		25.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			35.0			35.0			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		0.98		0.99			1.00		0.98	1.00		0.98
Frt		0.901			0.852				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1635	0	1752	1543	0	1641	1881	1599	1703	1845	1615
Flt Permitted	0.507			0.732			0.571			0.300		
Satd. Flow (perm)	963	1635	0	1337	1543	0	984	1881	1561	537	1845	1577
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			179				49			49
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		49.0			177.3			310.8			404.2	
Travel Time (s)		3.5			12.8			22.4			29.1	
Confl. Peds. (#/hr)			5	5			2		2	2		2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	4%	3%	0%	5%	10%	1%	1%	6%	3%	0%
Adj. Flow (vph)	16	13	25	69	3	179	11	790	84	104	312	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	38	0	69	182	0	11	790	84	104	312	1
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	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
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	0.6		2.0	0.6	2.0	2.0	0.6	2.0
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	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6		6	2		2
Detector Phase	4	4		8	8		6	6	6	2	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		45.0	45.0	45.0	45.0	45.0	45.0
Minimum Split (s)	31.5	31.5		31.5	31.5		52.0	52.0	52.0	52.0	52.0	52.0
Total Split (s)	33.0	33.0		33.0	33.0		67.0	67.0	67.0	67.0	67.0	67.0
Total Split (%)	33.0%	33.0%		33.0%	33.0%		67.0%	67.0%	67.0%	67.0%	67.0%	67.0%
Maximum Green (s)	25.5	25.5		25.5	25.5		60.0	60.0	60.0	60.0	60.0	60.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.5	3.5		3.5	3.5		3.0	3.0	3.0	3.0	3.0	3.0
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)	7.5	7.5		7.5	7.5		7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		0.2	0.2	0.2	0.2	0.2	0.2
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)	17.0	17.0		17.0	17.0		19.0	19.0	19.0	19.0	19.0	19.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)	11.6	11.6		11.6	11.6		73.9	73.9	73.9	73.9	73.9	73.9
Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.74	0.74	0.74	0.74	0.74	0.74
v/c Ratio	0.14	0.18		0.45	0.54		0.02	0.57	0.07	0.26	0.23	0.00
Control Delay (s/veh)	41.6	22.0		50.0	12.8		4.1	8.2	2.2	5.0	3.5	0.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	41.6	22.0		50.0	12.8		4.1	8.2	2.2	5.0	3.5	0.0
LOS	D	C		D	B		A	A	A	A	A	A
Approach Delay (s/veh)		27.8			23.0			7.5			3.9	
Approach LOS		C			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 75 (75%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay (s/veh): 9.7		Intersection LOS: A	
Intersection Capacity Utilization 104.7%		ICU Level of Service G	
Analysis Period (min) 15			

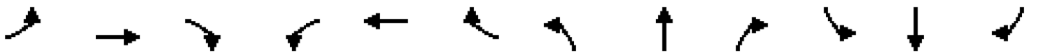
Splits and Phases: 16: Leslie Street & Mt. Albert Road



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	16	38	69	182	11	790	84	104	312	1
v/c Ratio	0.14	0.18	0.45	0.54	0.02	0.57	0.07	0.26	0.23	0.00
Control Delay (s/veh)	41.6	22.0	50.0	12.8	4.1	8.2	2.2	5.0	3.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	41.6	22.0	50.0	12.8	4.1	8.2	2.2	5.0	3.5	0.0
Queue Length 50th (m)	3.0	2.4	13.5	0.6	0.5	57.7	1.5	3.8	11.1	0.0
Queue Length 95th (m)	9.2	11.7	26.5	19.7	2.2	103.4	6.1	9.3	20.0	m0.0
Internal Link Dist (m)		25.0		153.3		286.8			380.2	
Turn Bay Length (m)			30.0		40.0		10.0	25.0		25.0
Base Capacity (vph)	245	435	340	526	726	1389	1166	396	1362	1177
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	0.07	0.09	0.20	0.35	0.02	0.57	0.07	0.26	0.23	0.00

Intersection Summary

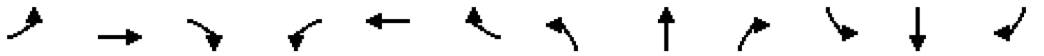
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	12	23	63	3	163	10	719	76	95	284	1
Future Volume (vph)	15	12	23	63	3	163	10	719	76	95	284	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5		7.5	7.5		7.0	7.0	7.0	7.0	7.0	7.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.98		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		0.99	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.90		1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1635		1735	1544		1637	1881	1561	1701	1845	1577
Flt Permitted	0.51	1.00		0.73	1.00		0.57	1.00	1.00	0.30	1.00	1.00
Satd. Flow (perm)	964	1635		1338	1544		983	1881	1561	538	1845	1577
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	16	13	25	69	3	179	11	790	84	104	312	1
RTOR Reduction (vph)	0	22	0	0	158	0	0	0	13	0	0	0
Lane Group Flow (vph)	16	16	0	69	24	0	11	790	71	104	312	1
Confl. Peds. (#/hr)			5	5			2		2	2		2
Heavy Vehicles (%)	0%	0%	4%	3%	0%	5%	10%	1%	1%	6%	3%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6		6	2		2
Actuated Green, G (s)	11.6	11.6		11.6	11.6		73.9	73.9	73.9	73.9	73.9	73.9
Effective Green, g (s)	11.6	11.6		11.6	11.6		73.9	73.9	73.9	73.9	73.9	73.9
Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.74	0.74	0.74	0.74	0.74	0.74
Clearance Time (s)	7.5	7.5		7.5	7.5		7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)	111	189		155	179		726	1390	1153	397	1363	1165
v/s Ratio Prot		0.01			0.02			c0.42			0.17	
v/s Ratio Perm	0.02			c0.05			0.01		0.05	0.19		0.00
v/c Ratio	0.14	0.08		0.45	0.13		0.02	0.57	0.06	0.26	0.23	0.00
Uniform Delay, d1	39.7	39.5		41.2	39.7		3.4	5.9	3.6	4.2	4.1	3.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	0.68	0.71	1.00
Incremental Delay, d2	0.6	0.2		2.0	0.3		0.0	1.7	0.1	1.6	0.4	0.0
Delay (s)	40.3	39.7		43.2	40.0		3.5	7.6	3.7	4.4	3.3	3.4
Level of Service	D	D		D	D		A	A	A	A	A	A
Approach Delay (s/veh)		39.9			40.9			7.1			3.6	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	104.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

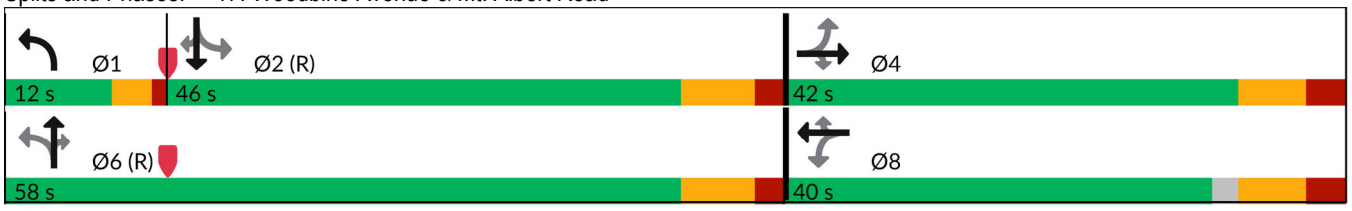


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	107	51	103	130	21	89	321	231	18	53	7
Future Volume (vph)	8	107	51	103	130	21	89	321	231	18	53	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	90.0		45.0	110.0		50.0	35.0		30.0	50.0		50.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	100.0			100.0			65.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1845	1583	1671	1845	1538	1805	3471	1568	1805	3539	1615
Flt Permitted	0.669			0.684			0.673			0.547		
Satd. Flow (perm)	1271	1845	1583	1203	1845	1538	1279	3471	1568	1039	3539	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			93			246			98
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		318.0			360.7			300.1			406.7	
Travel Time (s)		22.9			26.0			21.6			29.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	3%	2%	8%	3%	5%	0%	4%	3%	0%	2%	0%
Adj. Flow (vph)	9	114	54	110	138	22	95	341	246	19	56	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	9	114	54	110	138	22	95	341	246	19	56	7
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	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	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	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	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	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	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	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	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	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		1	6			2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	6		6	2		2
Detector Phase	4	4	4	8	8	8	1	6	6	2	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	15.0	15.0	15.0	15.0	15.0
Minimum Split (s)	22.5	22.5	22.5	40.0	40.0	40.0	11.5	38.5	38.5	38.5	38.5	38.5
Total Split (s)	42.0	42.0	42.0	40.0	40.0	40.0	12.0	58.0	58.0	46.0	46.0	46.0
Total Split (%)	42.0%	42.0%	42.0%	40.0%	40.0%	40.0%	12.0%	58.0%	58.0%	46.0%	46.0%	46.0%
Maximum Green (s)	34.0	34.0	34.0	32.0	32.0	32.0	8.0	50.5	50.5	38.5	38.5	38.5
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	3.0	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	1.0	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	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	4.0	7.5	7.5	7.5	7.5	7.5
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	6.0	6.0	6.0	6.0	6.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	0.0	0.0	0.0	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)	0.0	0.0	0.0	25.0	25.0	25.0		24.0	24.0	24.0	24.0	24.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0	0	0	0	0
Act Effct Green (s)	15.0	15.0	15.0	15.0	15.0	15.0	73.0	69.5	69.5	60.2	60.2	60.2
Actuated g/C Ratio	0.15	0.15	0.15	0.15	0.15	0.15	0.73	0.70	0.70	0.60	0.60	0.60
v/c Ratio	0.05	0.41	0.17	0.61	0.50	0.07	0.10	0.14	0.21	0.03	0.03	0.01
Control Delay (s/veh)	33.9	41.9	3.2	53.6	44.5	0.4	4.8	5.8	1.4	11.2	10.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	33.9	41.9	3.2	53.6	44.5	0.4	4.8	5.8	1.4	11.2	10.5	0.0
LOS	C	D	A	D	D	A	A	A	A	B	B	A
Approach Delay (s/veh)		29.7			44.6			4.1			9.8	
Approach LOS		C			D			A			A	

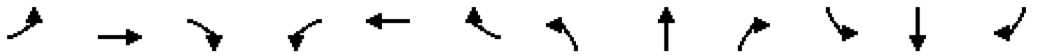
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay (s/veh): 17.2		Intersection LOS: B	
Intersection Capacity Utilization 54.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 17: Woodbine Avenue & Mt. Albert Road



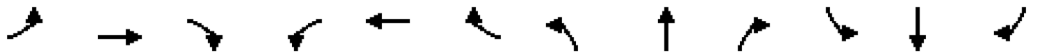
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	9	114	54	110	138	22	95	341	246	19	56	7
v/c Ratio	0.05	0.41	0.17	0.61	0.50	0.07	0.10	0.14	0.21	0.03	0.03	0.01
Control Delay (s/veh)	33.9	41.9	3.2	53.6	44.5	0.4	4.8	5.8	1.4	11.2	10.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	33.9	41.9	3.2	53.6	44.5	0.4	4.8	5.8	1.4	11.2	10.5	0.0
Queue Length 50th (m)	1.6	21.5	0.0	21.4	26.4	0.0	4.6	10.6	0.0	1.5	2.3	0.0
Queue Length 95th (m)	5.8	35.7	3.5	37.2	42.3	0.0	11.5	19.5	8.5	5.8	6.1	0.0
Internal Link Dist (m)		294.0			336.7			276.1			382.7	
Turn Bay Length (m)	90.0		45.0	110.0		50.0	35.0		30.0	50.0		50.0
Base Capacity (vph)	432	627	599	409	627	584	977	2413	1165	626	2131	1011
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.18	0.09	0.27	0.22	0.04	0.10	0.14	0.21	0.03	0.03	0.01

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	107	51	103	130	21	89	321	231	18	53	7
Future Volume (vph)	8	107	51	103	130	21	89	321	231	18	53	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0	8.0	8.0	8.0	8.0	4.0	7.5	7.5	7.5	7.5	7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1845	1583	1671	1845	1538	1805	3471	1568	1805	3539	1615
Flt Permitted	0.67	1.00	1.00	0.68	1.00	1.00	0.67	1.00	1.00	0.55	1.00	1.00
Satd. Flow (perm)	1271	1845	1583	1203	1845	1538	1279	3471	1568	1039	3539	1615
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	9	114	54	110	138	22	95	341	246	19	56	7
RTOR Reduction (vph)	0	0	46	0	0	19	0	0	75	0	0	3
Lane Group Flow (vph)	9	114	8	110	138	3	95	341	171	19	56	4
Heavy Vehicles (%)	0%	3%	2%	8%	3%	5%	0%	4%	3%	0%	2%	0%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		1	6			2	
Permitted Phases	4		4	8		8	6		6	2		2
Actuated Green, G (s)	15.0	15.0	15.0	15.0	15.0	15.0	69.5	69.5	69.5	59.4	59.4	59.4
Effective Green, g (s)	15.0	15.0	15.0	15.0	15.0	15.0	69.5	69.5	69.5	59.4	59.4	59.4
Actuated g/C Ratio	0.15	0.15	0.15	0.15	0.15	0.15	0.70	0.70	0.70	0.59	0.59	0.59
Clearance Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	4.0	7.5	7.5	7.5	7.5	7.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	6.0	6.0	6.0	6.0	6.0
Lane Grp Cap (vph)	190	276	237	180	276	230	920	2412	1089	617	2102	959
v/s Ratio Prot		0.06			0.07		0.01	0.10			0.02	
v/s Ratio Perm	0.01		0.01	c0.09		0.00	0.07		c0.11	0.02		0.00
v/c Ratio	0.05	0.41	0.03	0.61	0.50	0.01	0.10	0.14	0.16	0.03	0.03	0.00
Uniform Delay, d1	36.4	38.5	36.3	39.8	39.1	36.2	5.0	5.2	5.2	8.4	8.4	8.3
Progression 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
Incremental Delay, d2	0.1	1.0	0.1	6.0	1.4	0.0	0.0	0.1	0.3	0.1	0.0	0.0
Delay (s)	36.5	39.5	36.4	45.8	40.5	36.2	5.0	5.3	5.5	8.5	8.4	8.3
Level of Service	D	D	D	D	D	D	A	A	A	A	A	A
Approach Delay (s/veh)		38.4			42.3			5.3			8.4	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	18.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

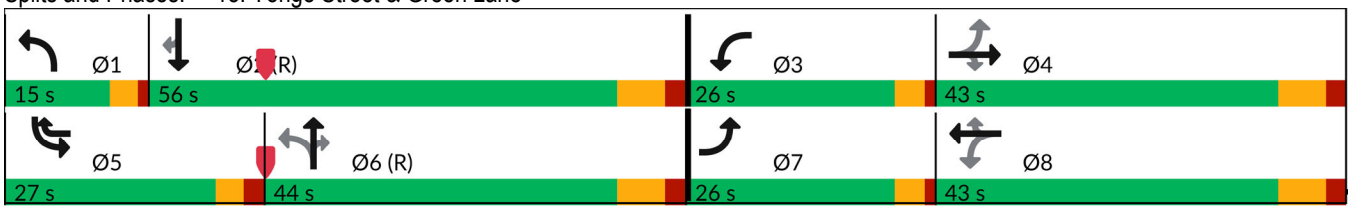


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	249	659	89	292	721	423	69	764	418	424	630	201
Future Volume (vph)	249	659	89	292	721	423	69	764	418	424	630	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		30.0	170.0		170.0	90.0		35.0	90.0		45.0
Storage Lanes	1		1	1		1	1		1	2		1
Taper Length (m)	45.0			40.0			40.0			100.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor	1.00		0.98	1.00		0.98	1.00		0.97	0.99		0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3539	1599	1805	3574	1599	1770	3610	1599	3433	3610	1599
Flt Permitted	0.152			0.162			0.408			0.950		
Satd. Flow (perm)	289	3539	1574	307	3574	1574	759	3610	1556	3404	3610	1573
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			132			89			195			159
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		1082.8			289.2			226.7			273.5	
Travel Time (s)		78.0			20.8			16.3			19.7	
Confl. Peds. (#/hr)	3		3	3		3	4		13	13		4
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	2%	1%	0%	1%	1%	2%	0%	1%	2%	0%	1%
Adj. Flow (vph)	254	672	91	298	736	432	70	780	427	433	643	205
Shared Lane Traffic (%)												
Lane Group Flow (vph)	254	672	91	298	736	432	70	780	427	433	643	205
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			7.2			7.2	
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	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	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	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	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	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	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	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	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	pm+ov	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	1	6		5	2	
Permitted Phases	4		4	8		8	6		6			2
Detector Phase	7	4	4	3	8	5	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	7.0	10.0	10.0	7.0	20.0	20.0	10.0	20.0	20.0
Minimum Split (s)	11.5	42.0	42.0	11.5	42.0	15.0	11.5	43.0	43.0	15.0	43.0	43.0
Total Split (s)	26.0	43.0	43.0	26.0	43.0	27.0	15.0	44.0	44.0	27.0	56.0	56.0
Total Split (%)	18.6%	30.7%	30.7%	18.6%	30.7%	19.3%	10.7%	31.4%	31.4%	19.3%	40.0%	40.0%
Maximum Green (s)	22.0	36.0	36.0	22.0	36.0	22.0	11.0	37.0	37.0	22.0	49.0	49.0
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	2.0	1.0	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	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	7.0	7.0	4.0	7.0	5.0	4.0	7.0	7.0	5.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	3.0	3.0	0.2	0.2	3.0	0.2	0.2
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	7.0
Flash Don't Walk (s)		28.0	28.0		28.0			29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0			0	0		0	0
Act Effct Green (s)	55.0	33.5	33.5	58.6	35.4	58.5	53.7	42.0	42.0	21.2	57.8	57.8
Actuated g/C Ratio	0.39	0.24	0.24	0.42	0.25	0.42	0.38	0.30	0.30	0.15	0.41	0.41
v/c Ratio	0.81	0.79	0.19	0.86	0.82	0.61	0.20	0.72	0.71	0.84	0.43	0.28
Control Delay (s/veh)	50.2	57.4	2.7	54.9	57.4	25.6	21.7	49.5	31.5	72.4	32.3	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	50.2	57.4	2.7	54.9	57.4	25.6	21.7	49.5	31.5	72.4	32.3	9.3
LOS	D	E	A	D	E	C	C	D	C	E	C	A
Approach Delay (s/veh)		50.7			47.5			42.0			42.2	
Approach LOS		D			D			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 14 (10%), Referenced to phase 2:SBT and 6:NBTL, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay (s/veh): 45.4		Intersection LOS: D	
Intersection Capacity Utilization 96.7%		ICU Level of Service F	
Analysis Period (min) 15			

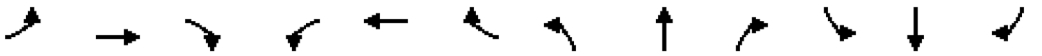
Splits and Phases: 18: Yonge Street & Green Lane



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	254	672	91	298	736	432	70	780	427	433	643	205
v/c Ratio	0.81	0.79	0.19	0.86	0.82	0.61	0.20	0.72	0.71	0.84	0.43	0.28
Control Delay (s/veh)	50.2	57.4	2.7	54.9	57.4	25.6	21.7	49.5	31.5	72.4	32.3	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	50.2	57.4	2.7	54.9	57.4	25.6	21.7	49.5	31.5	72.4	32.3	9.3
Queue Length 50th (m)	46.8	95.4	0.0	55.9	104.0	67.0	10.7	112.8	65.4	62.8	74.2	8.6
Queue Length 95th (m)	76.3	118.3	4.9	#102.7	131.0	104.3	20.2	138.5	109.6	#84.5	97.2	28.3
Internal Link Dist (m)		1058.8			265.2			202.7			249.5	
Turn Bay Length (m)	30.0		30.0	170.0		170.0	90.0		35.0	90.0		45.0
Base Capacity (vph)	358	910	502	364	931	725	382	1084	603	545	1490	742
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.74	0.18	0.82	0.79	0.60	0.18	0.72	0.71	0.79	0.43	0.28

Intersection Summary

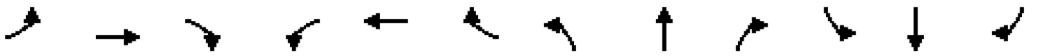
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	249	659	89	292	721	423	69	764	418	424	630	201
Future Volume (vph)	249	659	89	292	721	423	69	764	418	424	630	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.0	7.0	4.0	7.0	5.0	4.0	7.0	7.0	5.0	7.0	7.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	0.97	1.00	1.00	0.98
Flpb, ped/bikes	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	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	3539	1574	1805	3574	1583	1768	3610	1556	3433	3610	1573
Flt Permitted	0.15	1.00	1.00	0.16	1.00	1.00	0.41	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	289	3539	1574	307	3574	1583	759	3610	1556	3433	3610	1573
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	254	672	91	298	736	432	70	780	427	433	643	205
RTOR Reduction (vph)	0	0	69	0	0	53	0	0	137	0	0	94
Lane Group Flow (vph)	254	672	22	298	736	379	70	780	291	433	643	111
Confl. Peds. (#/hr)	3		3	3		3	4		13	13		4
Heavy Vehicles (%)	0%	2%	1%	0%	1%	1%	2%	0%	1%	2%	0%	1%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+ov	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	1	6		5	2	
Permitted Phases	4		4	8		8	6		6			2
Actuated Green, G (s)	51.9	33.5	33.5	55.7	35.4	56.6	49.2	42.0	42.0	21.2	57.0	57.0
Effective Green, g (s)	51.9	33.5	33.5	55.7	35.4	56.6	49.2	42.0	42.0	21.2	57.0	57.0
Actuated g/C Ratio	0.37	0.24	0.24	0.40	0.25	0.40	0.35	0.30	0.30	0.15	0.41	0.41
Clearance Time (s)	4.0	7.0	7.0	4.0	7.0	5.0	4.0	7.0	7.0	5.0	7.0	7.0
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	3.0	3.0	0.2	0.2	3.0	0.2	0.2
Lane Grp Cap (vph)	306	846	376	339	903	639	318	1083	466	519	1469	640
v/s Ratio Prot	0.11	0.19		c0.13	0.21	0.09	0.01	c0.22		c0.13	0.18	
v/s Ratio Perm	0.20		0.01	c0.22		0.15	0.07		0.19			0.07
v/c Ratio	0.83	0.79	0.06	0.88	0.82	0.59	0.22	0.72	0.62	0.83	0.44	0.17
Uniform Delay, d1	34.4	50.0	41.1	33.0	49.2	32.7	30.7	43.8	42.2	57.7	29.9	26.5
Progression 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
Incremental Delay, d2	17.1	5.9	0.1	21.8	6.5	1.5	0.4	4.1	6.2	11.1	1.0	0.6
Delay (s)	51.5	56.0	41.2	54.8	55.7	34.2	31.0	47.9	48.4	68.8	30.9	27.1
Level of Service	D	E	D	D	E	C	C	D	D	E	C	C
Approach Delay (s/veh)		53.5			49.2			47.1			43.1	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	48.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	96.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

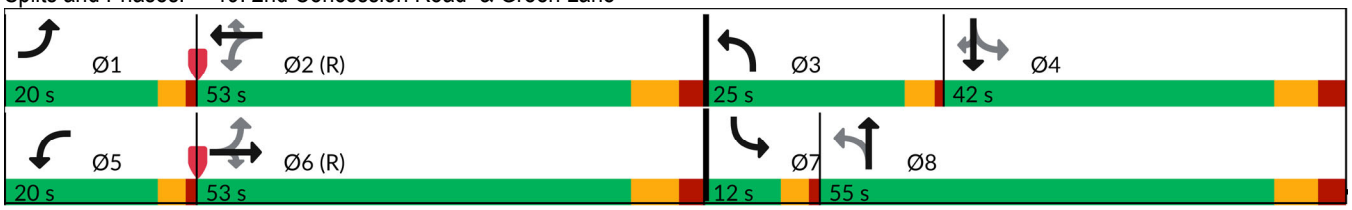


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	243	1288	161	180	1492	114	228	217	124	127	146	159
Future Volume (vph)	243	1288	161	180	1492	114	228	217	124	127	146	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	100.0		40.0	70.0		30.0	100.0		0.0	80.0		0.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			85.0			100.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor								1.00		1.00		
Frt			0.850			0.850		0.945				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1599	1770	5085	1583	1787	3349	0	1787	1900	1615
Flt Permitted	0.066			0.083			0.402			0.535		
Satd. Flow (perm)	123	3539	1599	155	5085	1583	756	3349	0	1006	1900	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			129			129		87				169
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		373.5			193.4			230.2			474.7	
Travel Time (s)		26.9			13.9			16.6			34.2	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	1%	2%	2%	2%	1%	1%	2%	1%	0%	0%
Adj. Flow (vph)	259	1370	171	191	1587	121	243	231	132	135	155	169
Shared Lane Traffic (%)												
Lane Group Flow (vph)	259	1370	171	191	1587	121	243	363	0	135	155	169
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	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	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	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	2.0
Detector 1 Type	Cl+Ex	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	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	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	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	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2		2	8			4		4
Detector Phase	1	6	6	5	2	2	3	8		7	4	4
Switch Phase												
Minimum Initial (s)	7.0	33.0	33.0	7.0	33.0	33.0	7.0	10.0		7.0	10.0	10.0
Minimum Split (s)	11.5	40.5	40.5	11.5	40.5	40.5	11.5	40.5		11.5	40.5	40.5
Total Split (s)	20.0	53.0	53.0	20.0	53.0	53.0	25.0	55.0		12.0	42.0	42.0
Total Split (%)	14.3%	37.9%	37.9%	14.3%	37.9%	37.9%	17.9%	39.3%		8.6%	30.0%	30.0%
Maximum Green (s)	16.0	45.5	45.5	16.0	45.5	45.5	21.0	47.5		8.0	34.5	34.5
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	4.5		3.0	4.5	4.5
All-Red Time (s)	1.0	2.5	2.5	1.0	2.5	2.5	1.0	3.0		1.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	7.5	7.5	4.0	7.5	7.5	4.0	7.5		4.0	7.5	7.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	0.2	0.2	3.0	0.2	0.2	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	7.0
Flash Don't Walk (s)		26.0	26.0		26.0	26.0		26.0			26.0	26.0
Pedestrian Calls (#/hr)		0	0		0	0		0			0	0
Act Effct Green (s)	88.4	65.7	65.7	75.1	56.4	56.4	43.6	28.1		28.3	16.8	16.8
Actuated g/C Ratio	0.63	0.47	0.47	0.54	0.40	0.40	0.31	0.20		0.20	0.12	0.12
v/c Ratio	0.71	0.83	0.21	0.74	0.78	0.17	0.64	0.49		0.55	0.68	0.49
Control Delay (s/veh)	45.3	39.1	8.6	47.7	40.7	5.0	45.7	38.5		46.2	73.7	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	45.3	39.1	8.6	47.7	40.7	5.0	45.7	38.5		46.2	73.7	12.5
LOS	D	D	A	D	D	A	D	D		D	E	B
Approach Delay (s/veh)		37.1			39.2			41.4			43.1	
Approach LOS		D			D			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 47 (34%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay (s/veh): 39.0		Intersection LOS: D	
Intersection Capacity Utilization 85.7%		ICU Level of Service E	
Analysis Period (min) 15			

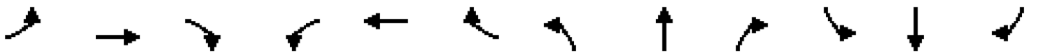
Splits and Phases: 19: 2nd Concession Road & Green Lane



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	259	1370	171	191	1587	121	243	363	135	155	169
v/c Ratio	0.71	0.83	0.21	0.74	0.78	0.17	0.64	0.49	0.55	0.68	0.49
Control Delay (s/veh)	45.3	39.1	8.6	47.7	40.7	5.0	45.7	38.5	46.2	73.7	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	45.3	39.1	8.6	47.7	40.7	5.0	45.7	38.5	46.2	73.7	12.5
Queue Length 50th (m)	53.9	183.2	6.7	34.1	149.1	0.0	55.5	37.0	28.8	44.0	0.0
Queue Length 95th (m)	86.3	#276.1	25.0	60.8	#199.4	12.9	76.1	50.4	43.5	65.7	20.8
Internal Link Dist (m)		349.5			169.4			206.2		450.7	
Turn Bay Length (m)	100.0		40.0	70.0		30.0	100.0		80.0		
Base Capacity (vph)	366	1659	818	290	2047	714	390	1193	247	468	525
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.83	0.21	0.66	0.78	0.17	0.62	0.30	0.55	0.33	0.32

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	243	1288	161	180	1492	114	228	217	124	127	146	159
Future Volume (vph)	243	1288	161	180	1492	114	228	217	124	127	146	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.5	7.5	4.0	7.5	7.5	4.0	7.5		4.0	7.5	7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1599	1770	5085	1583	1787	3351		1786	1900	1615
Flt Permitted	0.07	1.00	1.00	0.08	1.00	1.00	0.40	1.00		0.54	1.00	1.00
Satd. Flow (perm)	123	3539	1599	154	5085	1583	756	3351		1006	1900	1615
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	259	1370	171	191	1587	121	243	231	132	135	155	169
RTOR Reduction (vph)	0	0	68	0	0	72	0	70	0	0	0	149
Lane Group Flow (vph)	259	1370	103	191	1587	49	243	293	0	135	155	20
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	2%	2%	1%	2%	2%	2%	1%	1%	2%	1%	0%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2		2	8			4		4
Actuated Green, G (s)	84.9	65.7	65.7	71.6	56.4	56.4	40.1	28.1		24.8	16.8	16.8
Effective Green, g (s)	84.9	65.7	65.7	71.6	56.4	56.4	40.1	28.1		24.8	16.8	16.8
Actuated g/C Ratio	0.61	0.47	0.47	0.51	0.40	0.40	0.29	0.20		0.18	0.12	0.12
Clearance Time (s)	4.0	7.5	7.5	4.0	7.5	7.5	4.0	7.5		4.0	7.5	7.5
Vehicle Extension (s)	3.0	0.2	0.2	3.0	0.2	0.2	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	362	1660	750	254	2048	637	358	672		222	228	193
v/s Ratio Prot	c0.12	c0.39		0.08	0.31		c0.09	0.09		0.03	0.08	
v/s Ratio Perm	0.31		0.06	0.30		0.03	c0.10			0.07		0.01
v/c Ratio	0.72	0.83	0.14	0.75	0.77	0.08	0.68	0.44		0.61	0.68	0.11
Uniform Delay, d1	38.5	32.2	21.1	32.3	36.3	25.8	41.5	49.0		51.3	59.0	54.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	6.6	4.8	0.4	11.8	2.9	0.2	5.1	0.5		4.7	7.8	0.2
Delay (s)	45.0	37.0	21.4	44.2	39.2	26.0	46.6	49.5		56.0	66.8	55.1
Level of Service	D	D	C	D	D	C	D	D		E	E	E
Approach Delay (s/veh)		36.7			38.9			48.3			59.3	
Approach LOS		D			D			D			E	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	41.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	85.7%	ICU Level of Service	E
Analysis Period (min)	15		

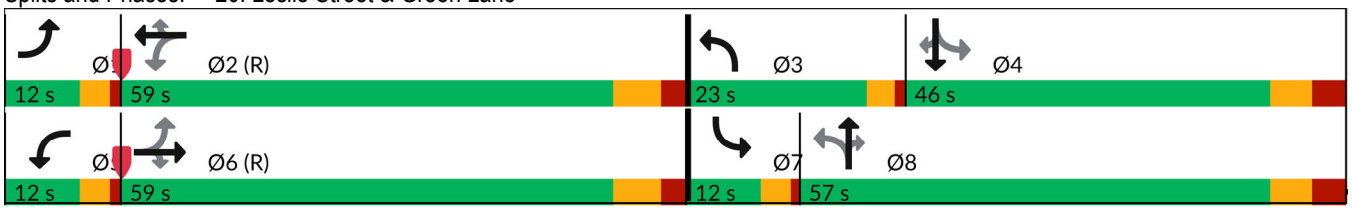
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	1082	401	85	1358	239	443	587	166	124	305	85
Future Volume (vph)	80	1082	401	85	1358	239	443	587	166	124	305	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		60.0	80.0		35.0	25.0		30.0	50.0		30.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			70.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor						0.98	1.00		0.98	1.00		0.99
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3406	1568	1736	3471	1568	1770	3539	1553	1641	3539	1583
Flt Permitted	0.086			0.166			0.369			0.336		
Satd. Flow (perm)	162	3406	1568	303	3471	1544	686	3539	1527	579	3539	1561
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			244			132			101			129
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		361.5			497.4			274.5			201.2	
Travel Time (s)		26.0			35.8			19.8			14.5	
Confl. Peds. (#/hr)	3					3	2		4	4		2
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	6%	3%	4%	4%	3%	2%	2%	4%	10%	2%	2%
Adj. Flow (vph)	81	1093	405	86	1372	241	447	593	168	125	308	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	1093	405	86	1372	241	447	593	168	125	308	86
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			Yes			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	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	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	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	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	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	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	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	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	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2		2	8		8	4		4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	37.0	37.0	7.0	37.0	37.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	11.5	44.5	44.5	11.5	44.5	44.5	11.5	45.0	45.0	11.5	45.0	45.0
Total Split (s)	12.0	59.0	59.0	12.0	59.0	59.0	23.0	57.0	57.0	12.0	46.0	46.0
Total Split (%)	8.6%	42.1%	42.1%	8.6%	42.1%	42.1%	16.4%	40.7%	40.7%	8.6%	32.9%	32.9%
Maximum Green (s)	8.0	51.5	51.5	8.0	51.5	51.5	19.0	49.0	49.0	8.0	38.0	38.0
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	1.0	2.5	2.5	1.0	2.5	2.5	1.0	3.5	3.5	1.0	3.5	3.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	7.5	7.5	4.0	7.5	7.5	4.0	8.0	8.0	4.0	8.0	8.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	6.0	6.0	3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Don't Walk (s)		30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	81.9	69.9	69.9	82.0	69.9	69.9	46.0	30.0	30.0	31.0	19.0	19.0
Actuated g/C Ratio	0.59	0.50	0.50	0.59	0.50	0.50	0.33	0.21	0.21	0.22	0.14	0.14
v/c Ratio	0.42	0.64	0.45	0.32	0.79	0.29	1.20	0.78	0.41	0.66	0.64	0.27
Control Delay (s/veh)	18.9	29.2	10.9	14.8	28.5	11.1	150.3	59.3	21.5	53.6	62.9	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.9	29.2	10.9	14.8	28.5	11.1	150.3	59.3	21.5	53.6	62.9	3.9
LOS	B	C	B	B	C	B	F	E	C	D	E	A
Approach Delay (s/veh)		24.0			25.3			87.7			50.9	
Approach LOS		C			C			F			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 53 (38%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.20			
Intersection Signal Delay (s/veh): 42.6		Intersection LOS: D	
Intersection Capacity Utilization 97.4%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 20: Leslie Street & Green Lane



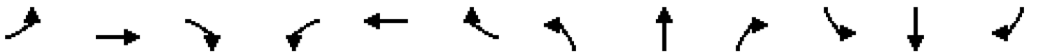
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	81	1093	405	86	1372	241	447	593	168	125	308	86
v/c Ratio	0.42	0.64	0.45	0.32	0.79	0.29	1.20	0.78	0.41	0.66	0.64	0.27
Control Delay (s/veh)	18.9	29.2	10.9	14.8	28.5	11.1	150.3	59.3	21.5	53.6	62.9	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.9	29.2	10.9	14.8	28.5	11.1	150.3	59.3	21.5	53.6	62.9	3.9
Queue Length 50th (m)	9.0	119.7	26.3	7.4	108.2	11.7	~117.4	86.7	16.2	26.5	45.4	0.0
Queue Length 95th (m)	18.6	166.5	61.7	m16.1	#205.3	33.4	#216.1	101.6	36.2	40.0	58.3	4.4
Internal Link Dist (m)		337.5			473.4			250.5			177.2	
Turn Bay Length (m)	30.0		60.0	80.0		35.0	25.0		30.0	50.0		30.0
Base Capacity (vph)	198	1699	904	269	1733	837	372	1238	600	189	960	517
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.64	0.45	0.32	0.79	0.29	1.20	0.48	0.28	0.66	0.32	0.17

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.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	1082	401	85	1358	239	443	587	166	124	305	85
Future Volume (vph)	80	1082	401	85	1358	239	443	587	166	124	305	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.5	7.5	4.0	7.5	7.5	4.0	8.0	8.0	4.0	8.0	8.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.99
Flpb, ped/bikes	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	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1787	3406	1568	1736	3471	1544	1769	3539	1527	1640	3539	1561
Flt Permitted	0.09	1.00	1.00	0.17	1.00	1.00	0.37	1.00	1.00	0.34	1.00	1.00
Satd. Flow (perm)	163	3406	1568	303	3471	1544	686	3539	1527	580	3539	1561
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	81	1093	405	86	1372	241	447	593	168	125	308	86
RTOR Reduction (vph)	0	0	122	0	0	66	0	0	79	0	0	74
Lane Group Flow (vph)	81	1093	283	86	1372	175	447	593	89	125	308	12
Confl. Peds. (#/hr)	3					3	2		4	4		2
Heavy Vehicles (%)	1%	6%	3%	4%	4%	3%	2%	2%	4%	10%	2%	2%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2		2	8		8	4		4
Actuated Green, G (s)	78.4	69.9	69.9	78.6	70.0	70.0	42.0	30.0	30.0	27.0	19.0	19.0
Effective Green, g (s)	78.4	69.9	69.9	78.6	70.0	70.0	42.0	30.0	30.0	27.0	19.0	19.0
Actuated g/C Ratio	0.56	0.50	0.50	0.56	0.50	0.50	0.30	0.21	0.21	0.19	0.14	0.14
Clearance Time (s)	4.0	7.5	7.5	4.0	7.5	7.5	4.0	8.0	8.0	4.0	8.0	8.0
Vehicle Extension (s)	3.0	6.0	6.0	3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	189	1700	782	258	1735	772	352	758	327	172	480	211
v/s Ratio Prot	c0.03	0.32		0.02	c0.40		c0.17	0.17		0.04	0.09	
v/s Ratio Perm	0.21		0.18	0.17		0.11	c0.21		0.06	0.10		0.01
v/c Ratio	0.43	0.64	0.36	0.33	0.79	0.23	1.27	0.78	0.27	0.73	0.64	0.06
Uniform Delay, d1	21.2	25.8	21.4	17.0	28.9	19.7	45.4	51.9	45.9	50.1	57.3	52.7
Progression Factor	1.00	1.00	1.00	1.01	0.84	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	1.9	1.3	0.6	2.9	0.5	142.0	5.3	0.4	14.2	2.9	0.1
Delay (s)	22.8	27.7	22.7	17.7	27.0	21.1	187.5	57.2	46.3	64.3	60.2	52.8
Level of Service	C	C	C	B	C	C	F	E	D	E	E	D
Approach Delay (s/veh)		26.2			25.7			103.9			60.0	
Approach LOS		C			C			F			E	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	48.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	23.5
Intersection Capacity Utilization	97.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	153	0	1	222	0	1
Future Volume (vph)	153	0	1	222	0	1
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					0.865	
Flt Protected						
Satd. Flow (prot)	1900	0	0	1881	1644	0
Flt Permitted						
Satd. Flow (perm)	1900	0	0	1881	1644	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	166.0			159.5	189.1	
Travel Time (s)	12.0			11.5	13.6	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	178	0	1	258	0	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	178	0	0	259	1	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	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)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.5%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	153	0	1	222	0	1
Future Volume (Veh/h)	153	0	1	222	0	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	178	0	1	258	0	1
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			178		438	178
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			178		438	178
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1410		579	870

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	178	259	1
Volume Left	0	1	0
Volume Right	0	0	1
cSH	1700	1410	870
Volume to Capacity	0.10	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	9.1
Lane LOS		A	A
Approach Delay (s/veh)	0.0	0.0	9.1
Approach LOS			A

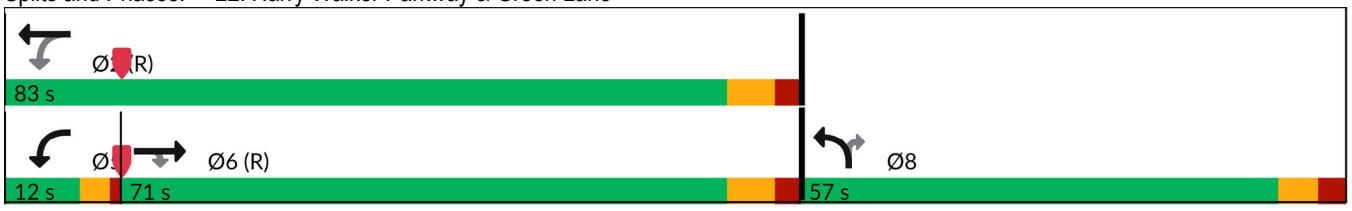
Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		22.5%	ICU Level of Service
Analysis Period (min)		15	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1265	60	77	1255	303	291
Future Volume (vph)	1265	60	77	1255	303	291
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		40.0	75.0		0.0	0.0
Storage Lanes		1	1		1	1
Taper Length (m)			100.0		7.5	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3505	1538	1787	3505	1787	1615
Flt Permitted			0.065		0.950	
Satd. Flow (perm)	3505	1538	122	3505	1787	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		26				139
Link Speed (k/h)	50			50	50	
Link Distance (m)	497.4			398.4	203.9	
Travel Time (s)	35.8			28.7	14.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	5%	1%	3%	1%	0%
Adj. Flow (vph)	1346	64	82	1335	322	310
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1346	64	82	1335	322	310
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	Yes					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (m)	10.0	2.0	2.0	10.0	2.0	2.0
Trailing Detector (m)	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
Detector 1 Size(m)	0.6	2.0	2.0	0.6	2.0	2.0
Detector 1 Type	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
Detector 1 Queue (s)	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
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	8	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases		6	2			8
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	30.0	30.0	7.0	30.0	10.0	10.0
Minimum Split (s)	37.5	37.5	11.5	37.5	32.0	32.0
Total Split (s)	71.0	71.0	12.0	83.0	57.0	57.0
Total Split (%)	50.7%	50.7%	8.6%	59.3%	40.7%	40.7%
Maximum Green (s)	63.5	63.5	8.0	75.5	50.0	50.0
Yellow Time (s)	5.0	5.0	3.0	5.0	4.0	4.0
All-Red Time (s)	2.5	2.5	1.0	2.5	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5	7.5	4.0	7.5	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Don't Walk (s)	19.0	19.0			18.0	18.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	63.8	63.8	79.0	75.5	50.0	50.0
Actuated g/C Ratio	0.46	0.46	0.56	0.54	0.36	0.36
v/c Ratio	0.84	0.09	0.51	0.71	0.50	0.47
Control Delay (s/veh)	27.6	13.0	27.8	26.6	38.7	20.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.6	13.0	27.8	26.6	38.7	20.9
LOS	C	B	C	C	D	C
Approach Delay (s/veh)	27.0			26.7	30.0	
Approach LOS	C			C	C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 47 (34%), Referenced to phase 2:WBTL and 6:EBT, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay (s/veh): 27.4		Intersection LOS: C	
Intersection Capacity Utilization 73.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 22: Harry Walker Parkway & Green Lane



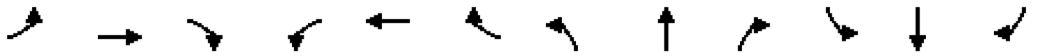
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1346	64	82	1335	322	310
v/c Ratio	0.84	0.09	0.51	0.71	0.50	0.47
Control Delay (s/veh)	27.6	13.0	27.8	26.6	38.7	20.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.6	13.0	27.8	26.6	38.7	20.9
Queue Length 50th (m)	79.1	1.6	10.5	147.6	73.3	37.2
Queue Length 95th (m)	132.2	m11.7	22.3	174.6	104.1	65.7
Internal Link Dist (m)	473.4			374.4	179.9	
Turn Bay Length (m)		40.0	75.0			
Base Capacity (vph)	1597	714	163	1890	638	666
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.09	0.50	0.71	0.50	0.47

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

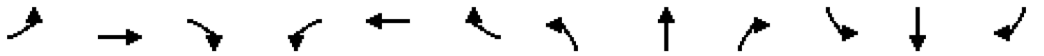
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1265	60	77	1255	303	291
Future Volume (vph)	1265	60	77	1255	303	291
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	4.0	7.5	7.0	7.0
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3505	1538	1787	3505	1787	1615
Flt Permitted	1.00	1.00	0.07	1.00	0.95	1.00
Satd. Flow (perm)	3505	1538	123	3505	1787	1615
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	1346	64	82	1335	322	310
RTOR Reduction (vph)	0	14	0	0	0	89
Lane Group Flow (vph)	1346	50	82	1335	322	221
Heavy Vehicles (%)	3%	5%	1%	3%	1%	0%
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	8	
Permitted Phases		6	2			8
Actuated Green, G (s)	63.8	63.8	75.5	75.5	50.0	50.0
Effective Green, g (s)	63.8	63.8	75.5	75.5	50.0	50.0
Actuated g/C Ratio	0.46	0.46	0.54	0.54	0.36	0.36
Clearance Time (s)	7.5	7.5	4.0	7.5	7.0	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1597	700	157	1890	638	576
v/s Ratio Prot	c0.38		0.03	c0.38	c0.18	
v/s Ratio Perm		0.03	0.25			0.14
v/c Ratio	0.84	0.07	0.52	0.71	0.50	0.38
Uniform Delay, d1	33.7	21.4	25.2	24.0	35.3	33.5
Progression Factor	0.67	0.92	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.6	0.2	3.1	2.3	2.8	1.9
Delay (s)	27.3	19.9	28.3	26.3	38.1	35.4
Level of Service	C	B	C	C	D	D
Approach Delay (s/veh)	26.9			26.4	36.8	
Approach LOS	C			C	D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	28.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	73.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	223	133	33	389	11	107	3	1	5	2	7
Future Volume (vph)	4	223	133	33	389	11	107	3	1	5	2	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		45.0	200.0		0.0	0.0		55.0	0.0		0.0
Storage Lanes	1		1	1		0	0		1	1		0
Taper Length (m)	7.5			90.0			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.996				0.850		0.880	
Flt Protected	0.950			0.950				0.954		0.950		
Satd. Flow (prot)	1805	3505	1524	1805	3411	0	0	1681	1615	1805	1357	0
Flt Permitted	0.950			0.950				0.954		0.950		
Satd. Flow (perm)	1805	3505	1524	1805	3411	0	0	1681	1615	1805	1357	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		338.3			392.1			139.5			42.1	
Travel Time (s)		24.4			28.2			10.0			3.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	6%	0%	5%	20%	8%	0%	0%	0%	0%	29%
Adj. Flow (vph)	4	242	145	36	423	12	116	3	1	5	2	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	242	145	36	435	0	0	119	1	5	10	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
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 37.2%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	223	133	33	389	11	107	3	1	5	2	7
Future Volume (Veh/h)	4	223	133	33	389	11	107	3	1	5	2	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	242	145	36	423	12	116	3	1	5	2	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)									7			
Median type		None			None							
Median storage veh)												
Upstream signal (m)					392							
pX, platoon unblocked												
vC, conflicting volume	435			242			543	757	121	632	751	218
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	435			242			543	757	121	632	751	218
tC, single (s)	4.1			4.1			7.7	6.5	6.9	7.5	6.5	7.5
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.3	3.5	4.0	3.6
p0 queue free %	100			97			71	99	100	99	99	99
cM capacity (veh/h)	1135			1336			394	329	914	358	332	710

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1	SB 1	SB 2
Volume Total	4	121	121	145	36	282	153	120	5	10
Volume Left	4	0	0	0	36	0	0	116	5	0
Volume Right	0	0	0	145	0	0	12	1	0	8
cSH	1135	1700	1700	1700	1336	1700	1700	396	358	578
Volume to Capacity	0.00	0.07	0.07	0.09	0.03	0.17	0.09	0.30	0.01	0.02
Queue Length 95th (m)	0.1	0.0	0.0	0.0	0.7	0.0	0.0	10.1	0.3	0.4
Control Delay (s/veh)	8.2	0.0	0.0	0.0	7.8	0.0	0.0	18.0	15.2	11.3
Lane LOS	A				A			C	C	B
Approach Delay (s/veh)	0.1				0.6			18.0	12.6	
Approach LOS								C	B	

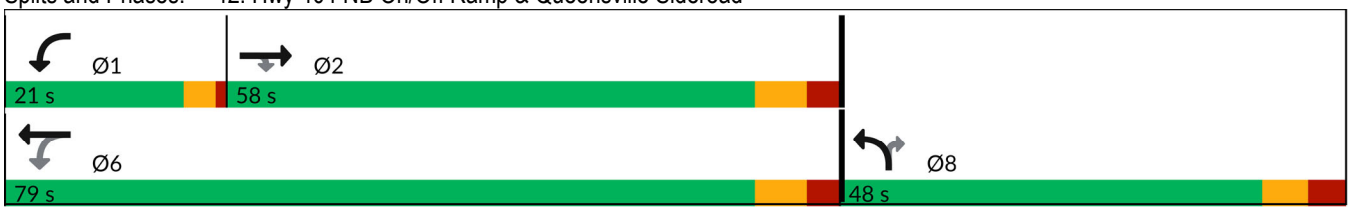
Intersection Summary				
Average Delay	2.7			
Intersection Capacity Utilization	37.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	104	112	0	121	335	76
Future Volume (vph)	104	112	0	121	335	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		100.0	90.0		0.0	70.0
Storage Lanes		1	1		2	1
Taper Length (m)			85.0		7.5	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt		0.850				0.850
Flt Protected					0.950	
Satd. Flow (prot)	3438	1495	1900	3343	3502	1615
Flt Permitted					0.950	
Satd. Flow (perm)	3438	1495	1900	3343	3502	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		122				83
Link Speed (k/h)	50			50	50	
Link Distance (m)	392.1			243.9	146.0	
Travel Time (s)	28.2			17.6	10.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	8%	0%	8%	0%	0%
Adj. Flow (vph)	113	122	0	132	364	83
Shared Lane Traffic (%)						
Lane Group Flow (vph)	113	122	0	132	364	83
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	7.2	
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)		15	25		25	15
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (m)	10.0	2.0	2.0	10.0	2.0	2.0
Trailing Detector (m)	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
Detector 1 Size(m)	0.6	2.0	2.0	0.6	2.0	2.0
Detector 1 Type	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
Detector 1 Queue (s)	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
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases		2	6			8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	20.0	10.0	10.0
Minimum Split (s)	49.0	49.0	11.5	49.0	38.0	38.0
Total Split (s)	58.0	58.0	21.0	79.0	48.0	48.0
Total Split (%)	45.7%	45.7%	16.5%	62.2%	37.8%	37.8%
Maximum Green (s)	50.0	50.0	17.0	71.0	40.0	40.0
Yellow Time (s)	5.0	5.0	3.0	5.0	4.5	4.5
All-Red Time (s)	3.0	3.0	1.0	3.0	3.5	3.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.0	8.0	4.0	8.0	8.0	8.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	4.0	4.0	2.0	4.0	3.0	3.0
Recall Mode	Min	Min	None	Min	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Don't Walk (s)	34.0	34.0			23.0	23.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	20.0	20.0		20.0	10.5	10.5
Actuated g/C Ratio	0.43	0.43		0.43	0.23	0.23
v/c Ratio	0.08	0.17		0.09	0.46	0.19
Control Delay (s/veh)	8.2	3.0		8.3	17.7	5.8
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	8.2	3.0		8.3	17.7	5.8
LOS	A	A		A	B	A
Approach Delay (s/veh)	5.5			8.3	15.5	
Approach LOS	A			A	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 127			
Actuated Cycle Length: 46.5			
Natural Cycle: 100			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay (s/veh): 11.4		Intersection LOS: B	
Intersection Capacity Utilization 39.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 42: Hwy 404 NB On/Off Ramp & Queensville Sideroad

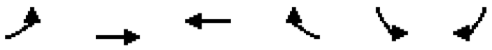


Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	113	122	132	364	83
v/c Ratio	0.08	0.17	0.09	0.46	0.19
Control Delay (s/veh)	8.2	3.0	8.3	17.7	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	8.2	3.0	8.3	17.7	5.8
Queue Length 50th (m)	2.7	0.0	3.2	13.9	0.0
Queue Length 95th (m)	6.5	6.9	7.3	23.5	7.8
Internal Link Dist (m)	368.1		219.9	122.0	
Turn Bay Length (m)		100.0			70.0
Base Capacity (vph)	3438	1495	3343	3013	1401
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.03	0.08	0.04	0.12	0.06

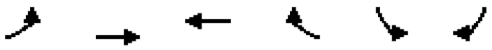
Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	104	112	0	121	335	76
Future Volume (vph)	104	112	0	121	335	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0		8.0	8.0	8.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3438	1495		3343	3502	1615
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3438	1495		3343	3502	1615
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	113	122	0	132	364	83
RTOR Reduction (vph)	0	70	0	0	0	64
Lane Group Flow (vph)	113	52	0	132	364	19
Heavy Vehicles (%)	5%	8%	0%	8%	0%	0%
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Actuated Green, G (s)	20.0	20.0		20.0	10.5	10.5
Effective Green, g (s)	20.0	20.0		20.0	10.5	10.5
Actuated g/C Ratio	0.43	0.43		0.43	0.23	0.23
Clearance Time (s)	8.0	8.0		8.0	8.0	8.0
Vehicle Extension (s)	4.0	4.0		4.0	3.0	3.0
Lane Grp Cap (vph)	1478	643		1437	790	364
v/s Ratio Prot	0.03			c0.04	c0.10	
v/s Ratio Perm		0.04				0.01
v/c Ratio	0.08	0.08		0.09	0.46	0.05
Uniform Delay, d1	7.8	7.8		7.9	15.6	14.1
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.0	0.1		0.0	0.4	0.1
Delay (s)	7.8	7.9		7.9	16.0	14.2
Level of Service	A	A		A	B	B
Approach Delay (s/veh)	7.9			7.9	15.6	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	46.5	Sum of lost time (s)	20.0
Intersection Capacity Utilization	39.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



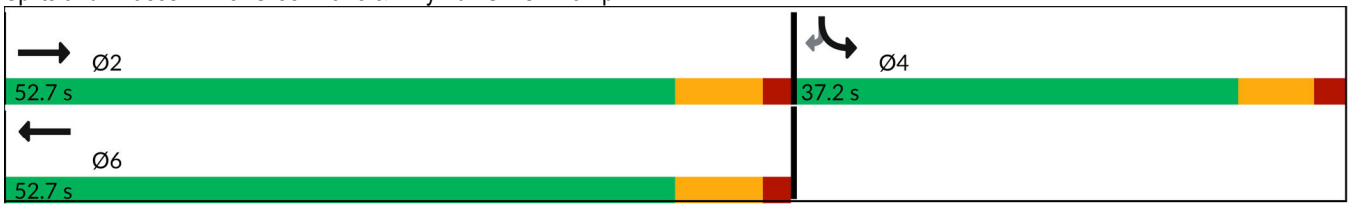
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	846	1416	0	3	241
Future Volume (vph)	0	846	1416	0	3	241
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	0.95
Frt					0.853	0.850
Flt Protected					0.999	
Satd. Flow (prot)	0	3505	3438	0	1619	1534
Flt Permitted					0.999	
Satd. Flow (perm)	0	3505	3438	0	1619	1534
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)					16	16
Link Speed (k/h)		50	50		50	
Link Distance (m)		398.4	381.7		240.9	
Travel Time (s)		28.7	27.5		17.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	5%	12%	0%	0%
Adj. Flow (vph)	0	920	1539	0	3	262
Shared Lane Traffic (%)						49%
Lane Group Flow (vph)	0	920	1539	0	131	134
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
Number of Detectors		2	2		1	1
Detector Template		Thru	Thru		Left	Right
Leading Detector (m)		10.0	10.0		2.0	2.0
Trailing Detector (m)		0.0	0.0		0.0	0.0
Detector 1 Position(m)		0.0	0.0		0.0	0.0
Detector 1 Size(m)		0.6	0.6		2.0	2.0
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	0.0
Detector 1 Queue (s)		0.0	0.0		0.0	0.0
Detector 1 Delay (s)		0.0	0.0		0.0	0.0
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	Perm
Protected Phases		2	6		4	
Permitted Phases						4
Detector Phase		2	6		4	4
Switch Phase						

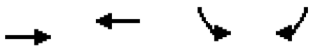


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Initial (s)		20.0	20.0		10.0	10.0
Minimum Split (s)		27.7	27.7		25.2	25.2
Total Split (s)		52.7	52.7		37.2	37.2
Total Split (%)		58.6%	58.6%		41.4%	41.4%
Maximum Green (s)		45.0	45.0		30.0	30.0
Yellow Time (s)		5.9	5.9		5.1	5.1
All-Red Time (s)		1.8	1.8		2.1	2.1
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.7	7.7		7.2	7.2
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		4.0	4.0		3.0	3.0
Recall Mode		Max	Max		Max	Max
Walk Time (s)		7.0	7.0		7.0	7.0
Flash Don't Walk (s)		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0
Act Effct Green (s)		45.0	45.0		30.0	30.0
Actuated g/C Ratio		0.50	0.50		0.33	0.33
v/c Ratio		0.52	0.89		0.24	0.26
Control Delay (s/veh)		16.6	28.8		20.4	20.7
Queue Delay		0.0	0.0		0.0	0.0
Total Delay (s/veh)		16.6	28.8		20.4	20.7
LOS		B	C		C	C
Approach Delay (s/veh)		16.6	28.8		20.6	
Approach LOS		B	C		C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 89.9			
Actuated Cycle Length: 89.9			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay (s/veh): 23.8		Intersection LOS: C	
Intersection Capacity Utilization 61.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 45: Green Lane & Hwy 404 SB Off Ramp

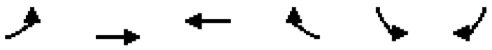




Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	920	1539	131	134
v/c Ratio	0.52	0.89	0.24	0.26
Control Delay (s/veh)	16.6	28.8	20.4	20.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.6	28.8	20.4	20.7
Queue Length 50th (m)	56.7	126.7	14.8	16.1
Queue Length 95th (m)	74.2	#168.8	28.8	31.5
Internal Link Dist (m)	374.4	357.7	216.9	
Turn Bay Length (m)				
Base Capacity (vph)	1754	1720	550	522
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.52	0.89	0.24	0.26

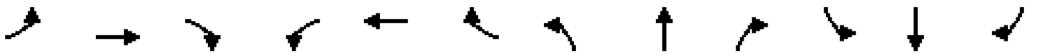
Intersection Summary

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



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		Y	↱
Traffic Volume (vph)	0	846	1416	0	3	241
Future Volume (vph)	0	846	1416	0	3	241
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.7	7.7		7.2	7.2
Lane Util. Factor		0.95	0.95		1.00	0.95
Frt		1.00	1.00		0.85	0.85
Flt Protected		1.00	1.00		1.00	1.00
Satd. Flow (prot)		3505	3438		1620	1534
Flt Permitted		1.00	1.00		1.00	1.00
Satd. Flow (perm)		3505	3438		1620	1534
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	920	1539	0	3	262
RTOR Reduction (vph)	0	0	0	0	11	11
Lane Group Flow (vph)	0	920	1539	0	120	123
Heavy Vehicles (%)	0%	3%	5%	12%	0%	0%
Turn Type		NA	NA		Prot	Perm
Protected Phases		2	6		4	
Permitted Phases						4
Actuated Green, G (s)		45.0	45.0		30.0	30.0
Effective Green, g (s)		45.0	45.0		30.0	30.0
Actuated g/C Ratio		0.50	0.50		0.33	0.33
Clearance Time (s)		7.7	7.7		7.2	7.2
Vehicle Extension (s)		4.0	4.0		3.0	3.0
Lane Grp Cap (vph)		1754	1720		540	511
v/s Ratio Prot		0.26	c0.45		0.07	
v/s Ratio Perm						c0.08
v/c Ratio		0.52	0.89		0.22	0.24
Uniform Delay, d1		15.2	20.3		21.6	21.7
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		1.1	7.7		1.0	1.1
Delay (s)		16.3	28.0		22.5	22.8
Level of Service		B	C		C	C
Approach Delay (s/veh)		16.3	28.0		22.7	
Approach LOS		B	C		C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	23.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	89.9	Sum of lost time (s)	14.9
Intersection Capacity Utilization	61.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

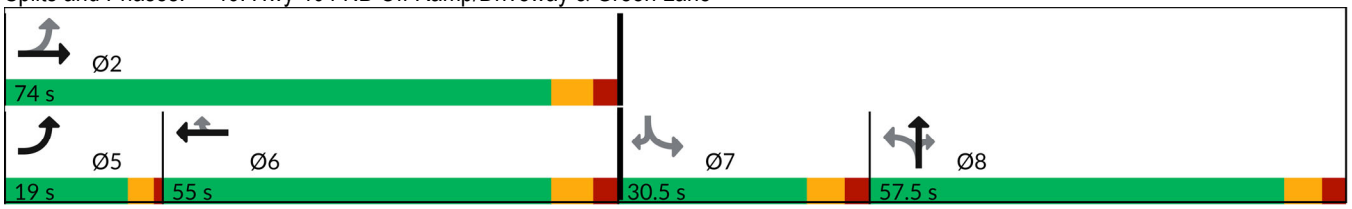


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	383	0	0	393	3	1088	13	102	3	0	30
Future Volume (vph)	8	383	0	0	393	3	1088	13	102	3	0	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	0.0		35.0	0.0		65.0	0.0		0.0
Storage Lanes	1		0	0		1	1		1	1		1
Taper Length (m)	75.0			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.850
Flt Protected	0.950						0.950	0.953		0.950		
Satd. Flow (prot)	1597	3471	0	0	3312	1615	1649	1653	1568	1805	0	1509
Flt Permitted	0.345						0.950	0.953		0.714		
Satd. Flow (perm)	580	3471	0	0	3312	1615	1649	1653	1568	1357	0	1509
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						108			111			111
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		381.7			245.7			510.8			44.1	
Travel Time (s)		27.5			17.7			36.8			3.2	
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 (%)	13%	4%	2%	0%	9%	0%	4%	8%	3%	0%	0%	7%
Adj. Flow (vph)	9	416	0	0	427	3	1183	14	111	3	0	33
Shared Lane Traffic (%)							49%					
Lane Group Flow (vph)	9	416	0	0	427	3	603	594	111	3	0	33
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			2	1	1	2	1	1		1
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right	Left		Right
Leading Detector (m)	2.0	10.0			10.0	2.0	2.0	10.0	2.0	2.0		2.0
Trailing Detector (m)	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
Detector 1 Size(m)	2.0	0.6			0.6	2.0	2.0	0.6	2.0	2.0		2.0
Detector 1 Type	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
Detector 1 Queue (s)	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
Detector 2 Position(m)		9.4			9.4			9.4				
Detector 2 Size(m)		0.6			0.6			0.6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	pm+pt	NA			NA	Perm	Perm	NA	Perm	Perm		Perm
Protected Phases	5	2			6			8				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2					6	8		8	7		7
Detector Phase	5	2			6	6	8	8	8	7		7
Switch Phase												
Minimum Initial (s)	7.0	20.0			20.0	20.0	10.0	10.0	10.0	10.0		10.0
Minimum Split (s)	11.0	41.0			41.0	41.0	40.5	40.5	40.5	17.7		17.7
Total Split (s)	19.0	74.0			55.0	55.0	57.5	57.5	57.5	30.5		30.5
Total Split (%)	11.7%	45.7%			34.0%	34.0%	35.5%	35.5%	35.5%	18.8%		18.8%
Maximum Green (s)	15.0	66.0			47.0	47.0	50.0	50.0	50.0	23.0		23.0
Yellow Time (s)	3.0	5.0			5.0	5.0	4.5	4.5	4.5	4.5		4.5
All-Red Time (s)	1.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0		3.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.0	8.0			8.0	8.0	7.5	7.5	7.5	7.5		7.5
Lead/Lag	Lead				Lag	Lag	Lag	Lag	Lag	Lead		Lead
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	4.0			4.0	4.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	Min			Min	Min	None	None	None	None		None
Walk Time (s)		7.0			7.0	7.0	7.0	7.0	7.0			
Flash Don't Walk (s)		26.0			26.0	26.0	26.0	26.0	26.0			
Pedestrian Calls (#/hr)		0			0	0	0	0	0			
Act Effct Green (s)	27.6	23.5			21.7	21.7	50.9	50.9	50.9	10.2		10.2
Actuated g/C Ratio	0.28	0.24			0.22	0.22	0.51	0.51	0.51	0.10		0.10
v/c Ratio	0.04	0.51			0.59	0.01	0.72	0.71	0.13	0.02		0.13
Control Delay (s/veh)	28.6	36.2			40.6	0.0	28.3	27.8	4.2	48.0		1.1
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)	28.6	36.2			40.6	0.0	28.3	27.8	4.2	48.0		1.1
LOS	C	D			D	A	C	C	A	D		A
Approach Delay (s/veh)		36.1			40.3			26.0			5.0	
Approach LOS		D			D			C			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 162			
Actuated Cycle Length: 99.9			
Natural Cycle: 115			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay (s/veh): 30.4		Intersection LOS: C	
Intersection Capacity Utilization 74.6%		ICU Level of Service D	
Analysis Period (min) 15			

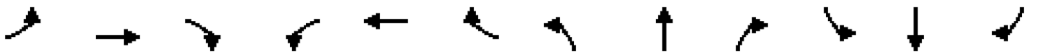
Splits and Phases: 46: Hwy 404 NB Off Ramp/Driveway & Green Lane



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR
Lane Group Flow (vph)	9	416	427	3	603	594	111	3	33
v/c Ratio	0.04	0.51	0.59	0.01	0.72	0.71	0.13	0.02	0.13
Control Delay (s/veh)	28.6	36.2	40.6	0.0	28.3	27.8	4.2	48.0	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.6	36.2	40.6	0.0	28.3	27.8	4.2	48.0	1.1
Queue Length 50th (m)	1.5	42.6	44.1	0.0	104.6	102.1	0.0	0.6	0.0
Queue Length 95th (m)	5.3	57.7	68.3	0.0	#220.5	#214.6	11.3	4.0	0.0
Internal Link Dist (m)		357.7	221.7			486.8			
Turn Bay Length (m)	25.0			35.0			65.0		
Base Capacity (vph)	315	2335	1586	829	840	842	853	318	438
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.18	0.27	0.00	0.72	0.71	0.13	0.01	0.08

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	383	0	0	393	3	1088	13	102	3	0	30
Future Volume (vph)	8	383	0	0	393	3	1088	13	102	3	0	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	8.0			8.0	8.0	7.5	7.5	7.5	7.5		7.5
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.95	1.00	1.00		1.00
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85	1.00		0.85
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00	0.95		1.00
Satd. Flow (prot)	1597	3471			3312	1615	1649	1653	1568	1805		1509
Flt Permitted	0.34	1.00			1.00	1.00	0.95	0.95	1.00	0.71		1.00
Satd. Flow (perm)	580	3471			3312	1615	1649	1653	1568	1357		1509
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	416	0	0	427	3	1183	14	111	3	0	33
RTOR Reduction (vph)	0	0	0	0	0	2	0	0	58	0	0	31
Lane Group Flow (vph)	9	416	0	0	427	1	603	594	53	3	0	2
Heavy Vehicles (%)	13%	4%	2%	0%	9%	0%	4%	8%	3%	0%	0%	7%
Turn Type	pm+pt	NA			NA	Perm	Perm	NA	Perm	Perm		Perm
Protected Phases	5	2			6			8				
Permitted Phases	2					6	8		8	7		7
Actuated Green, G (s)	26.9	26.9			21.7	21.7	50.9	50.9	50.9	5.6		5.6
Effective Green, g (s)	26.9	26.9			21.7	21.7	50.9	50.9	50.9	5.6		5.6
Actuated g/C Ratio	0.25	0.25			0.20	0.20	0.48	0.48	0.48	0.05		0.05
Clearance Time (s)	4.0	8.0			8.0	8.0	7.5	7.5	7.5	7.5		7.5
Vehicle Extension (s)	3.0	4.0			4.0	4.0	3.0	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	158	877			675	329	788	790	750	71		79
v/s Ratio Prot	0.00	c0.12			c0.13							
v/s Ratio Perm	0.01					0.00	c0.37	0.36	0.03	c0.00		0.00
v/c Ratio	0.06	0.47			0.63	0.00	0.77	0.75	0.07	0.04		0.02
Uniform Delay, d1	30.2	33.7			38.7	33.7	22.8	22.6	15.0	47.9		47.8
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	0.2	0.6			2.2	0.0	4.5	4.1	0.0	0.2		0.1
Delay (s)	30.3	34.3			40.9	33.7	27.3	26.7	15.0	48.1		47.9
Level of Service	C	C			D	C	C	C	B	D		D
Approach Delay (s/veh)		34.2			40.8			26.0			47.9	
Approach LOS		C			D			C			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	30.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	106.4	Sum of lost time (s)	27.0
Intersection Capacity Utilization	74.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			